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Natural History Society

THE
BRITISH AMERICAN JOURNAL

OF
MEDICAL & PHYSICAL SCIENCE.

EDITED BY

ARCHIBALD HALL, M.D., L.R.C.S.E.,

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VOL. IV.]

SEPTEMBER, 1848.

[No. 5.

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MDCCLXVIII.

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THE ENSUING WINTER COURSE, OF LECTURES, in the Faculty of Medicine, will commence on Monday, November 6th, and will be continued, uninterruptedly, with the exception of the Christmas vacation, till the last week in April, forming a Session of Six Months.

Theory and Practice of Medicine,	by A. F. Holmes, M.D.
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In each of the Courses above specified, five lectures per week are given, except in the Courses of Clinical Medicine, and of Medical Jurisprudence, in the former of which two, and in the latter three only, during the week, are given. The Lecturers in the different departments, will illustrate their respective subjects, by the aid of preparations, plates, apparatus, specimens, etc. etc.

The Medical Library, which is furnished not only with books of reference, but the usual elementary works, will be open to matriculated students, without charge, under the necessary regulations. Access to the Museum will be allowed at certain hours. The Demonstrator of Anatomy will be daily in the Dissecting Rooms to oversee and Direct the students.

N. B.—The tickets of this University being recognized by the Universities and Colleges of Great Britain, students who purpose completing their professional education in the mother country, will obtain an important advantage by having attended its Courses.

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Montreal, May, 1848.

MEDICO-CHIRURGICAL SOCIETY.

THE next Monthly Meeting of this Society will be held at the Rooms of the Mechanics' Institute, on Saturday Evening, Sept. 2, at 8 o'clock P.M.

HECTOR PELTIER, M.D.,

Montreal, Sept. 1, 1848.

Secretary.

COLLEGE OF PHYSICIANS AND SURGEONS.

THE next MEETING of the BOARD of GOVERNORS of the COLLEGE of PHYSICIANS and SURGEONS of Lower Canada, for the purpose of Examining Candidates for License, as well as for the examination of those about to enter upon the Study of Medicine, will be held, in accordance with the Act of Incorporation, on TUESDAY, the 10th day of OCTOBER next, at 10 o'clock a.m., at the Parliament House, Montreal.

Candidates are required to deposit their Credentials with the Secretary, at least ten days before the Meeting.

By Order,

A. H. DAVID, M. D.
District Secretary.

Montreal, 1st September, 1848.

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ALEX. URQUHART.

Montreal, August 10, 1848.

THE
BRITISH AMERICAN JOURNAL
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VOL. IV.]

MONTREAL, SEPTEMBER, 1848.

[No. 5.]

ART. XXXII.—OBSERVATIONS ON THE CLIMATE OF BARBADOES, AND ITS INFLUENCE ON DISEASE: TOGETHER WITH REMARKS ON ANGEOLEUCITIS OR BARBADOES LEG.

By JAMES BOVELL, M. D.,

Member of the Royal College of Physicians, London,—late Junior Physician to the Barbadoes General Hospital,—junior Physician to the Toronto General Dispensary and Lying-in Charity.

Before entering on the history of the cases which form the basis of this communication, I may premise, that the prejudice existing against the performance of surgical operations in Barbadoes is now, at least, altogether unfounded, and that as far as regards ulterior consequences, they may be undertaken with the same degree of confidence as in Europe.

To the British or American reader acquainted with the writings of the older surgeons who have recorded the results of their experience on the peculiarities of the diseases of the West Indies, and the effect produced on disease by climate, this may appear a rather bold assertion, for the doctrine hitherto universally taught has been that, except as the only remaining chance of saving life, operations of every kind should be carefully avoided. And in cases of severe injury, amputation was frequently attempted as affording a greater chance of escape from tetanus, from the opinion existing that a clean wound was less likely to be followed by tetanus than a contused or punctured one,—that this rule applied not only to such as are considered capital operations, but even to those of a minor character, is very evident, from the instructions on this head given by old practitioners, and, indeed, so great was their aversion to the use of the knife, and so terrible the dread of tetanus, that even injection for the cure of hydrocele was always undertaken with extreme reluctance. Sir Astley Cooper, in his great work on "The Diseases of the Testis," has published a letter which he received from Mr. Caddell, of Bath,—but formerly a leading surgeon in Barbadoes,—in which Mr. Caddell states that "He lost some patients from erysipelas and a few from tetanus. The latter is, I believe, a danger unknown in England, but in Barbadoes it occurs often enough to make a man avoid operations of every kind as much as possible." Twenty years ago, and, perhaps, at a more recent period, there can be no doubt but that the dangers consequent on surgical operations were very great, and it seems equally certain that the fatal results of cases submitted to the knife at that period, were attributable to causes over which the science of surgery exercised but little or no control, having their origin out of the peculiarities of

climate; and, perhaps, much influenced by the social relations of the population.

Perhaps the scientific improvements in modern surgery deserve to be credited with a portion of our gratitude for present immunity from such fatal results after operations; but while we admit this, and acknowledge the simplicity and rationality of modern treatment, it is nevertheless certain that some of Mr. Caddell's contemporaries are still actively engaged in practice, pursuing similar methods of operating, but with more successful results than awaited their early practice.

Mosely, writing in A. D. 1795, says, "I have lost many patients from locked-jaw after amputation, and never found, leaving out the nerves, or whether ligatures were made or not, caused the slightest difference in the event, nor were any security against tetanus, nor diminished the symptomatic fever." He further adds, "Negroes who are most subject to it, whatever the cause may be, are void of sensibility to a surprising degree—they are not subject to nervous diseases—they bear chirurgical operations better than white people; and what would be the cause of insupportable pain to a white man, a negro would almost disregard. I have amputated the legs of many negroes who have held the upper part of the limb themselves." To the truthfulness of this latter assertion, we can bear testimony. The negro that has not been brought under the influence of domestic civilization and refinement, (if we may use the expression,) who has continued the life of the husbandman and field-labourer, does seem less susceptible of pain than the white man, and it would appear that nature has given them this power as a bountiful provision, enabling the African to expose himself freely to the sun's rays, which exert no unpleasant influence on his skin, while the white suffers severely from a temporary exposure. But in those Europeans long resident in the tropics, a darkening of the cutis takes place, which seems to be an effort of nature to establish the pigment which prevents that severe blistering so painful to those not accustomed to the influence of the sun's rays. There are at present in the Island two persons who, from constant exposure to the sun, are as dark as the Demerara Indian, and whose skin, under cover of the clothes, is very fair: on these, the sun now exerts as little influence as on the negro, and considerably less than on the refined descendant of Africa, and in this class there seems to be a diminished sensibility also. On the other hand, we cannot support the opinion advanced, of the greater susceptibility of the black person to tetanus, since there are not in existence data wherewith to construct tables sufficiently accurate to enable us to arrive at a

satisfactory conclusion; and even admitting that such could be obtained, they would be valueless, inasmuch as the black man was not placed under the same circumstances of life as the white. The former, living in a state of bondage, was coerced to labour at the will of another, and was entirely dependant on the humanity of his owner for the privilege of exercising the promptings of nature or instinct—thus, under the vicissitudes of weather, through sunshine and shower, he performed his allotted task. The negro is also particularly fond of music and the dance, and many of them would walk miles at night to a carousal, and thus deprived of all rest, go to their daily employment with enfeebled bodies, and, therefore, more susceptible of dangers arising from change of weather. Neither morally nor socially, then, was the slave in an analogous position with his master; therefore the only comparison which could with any semblance of truth be instituted, would be between the slave and the brute—these latter being equally, with human beings, liable to the supervention of tetanus after injuries or operations—a puncture or bruise in the foot of the horse being very frequently followed by this terrible malady.

The surgeon, however, was not deterred from operating from a fear of locked-jaw alone carrying off his patients, but there were also other diseases frequently prevailing which were peculiarly dangerous and fatal to those who had undergone surgical operations, viz., erysipelas, dysentery, diarrhoea, &c., each of these diseases appeared epidemically, and were often extremely fatal. It may be urged by those who advocate the modern doctrine of a more rational humoral pathology, that our present immunity, not only from secondary dangers following operations, but also from these epidemic scourges, might be traced to a change of constitution, occasioned by the altered habits and modes of living of the late slave population; but if this was the only cause, our poor animals who were, as we have already stated, also susceptible of tetanus, angeleucitis, &c., ought yet to be sacrificed, since it is very certain that they have not obtained (except in a few instances) any marked alleviation of their condition, but have, on the contrary, been saddled with much of the labour and drudgery, which emancipation has removed from the descendant of Africa. That much is due to an improved system of dietary, we can have no doubt; and as the periods for the performance of labour are optional with the peasant, those hours are selected which best accord with his feelings and sensations. The labourer, by curtailing the hours allotted to field-work for the estate, has been enabled to devote a portion of his time to the exercise of domestic habits—he has generally a garden plot around his comfortable cottage, the cultivation of which not only occupies his leisure hours, but enables him also to procure many little homely comforts, and to vary his food as he pleases. Under slavery, it is true, that as a general rule, their food was plentiful and regularly served up, yet the slave was obliged to receive that which was given him, changed only by the market-price of the article, or at the will of the owner.

Nature points out to the negro the necessity of pre-

serving himself against the inclemencies of weather, and to be careful of sudden alternations of heat and cold. There is nothing that he dreads more than the night air, especially if there be a brilliant moon and a cloudless sky; for while in the noon-day at a temperature of 100° Fahrenheit, he sleeps on the bare earth, a stone for his pillow, and his eyes upturned to the full glare of the sun, on the approach of night he wraps up warmly, and shelters himself beneath an umbrella. Metcalf observes, “that the Africans when removed to the West Indies, where the maximum temperature is from ten to twenty degrees lower, are unable to obtain caloric from the atmosphere by respiration as fast as it is abstracted by the surrounding media, especially in the high lands, or during the prevalence of northerly winds, and early in the morning when the air is damp. The consequence is, that under such circumstances they are to be found shivering with cold, but never complain of the most intense heat of the sun, which is no less delightful to their feelings than conducive to their health.” This fact we have seen repeatedly exemplified by the black patients in our hospital, who frequently request permission to sit in the sun at midday, and we have as frequently seen those, who, from inability to leave their wards, have been compelled to remain within doors, cover up even their very heads under the bed clothes, the temperature of the air being anything but agreeable to a white person.

If, then, it be true, that the descendants of Africa are, above the rest of mankind, dependant for their health and comfort on the great fountain of light and heat, may we not derive much gratification by knowing that, besides the great moral excellence of emancipation, we have, by abridging the demands made on the physical capabilities of the negro, enabled him to follow the promptings of nature, which teach him to guard against changes of weather, and to shun the dews of night. It is now impossible to get the labourer to his work before sunrise—their race must be run with the sun—and the coming shower is avoided with much care.

Of all the sub-divisions of general philosophy, there is none so little entitled to the name of science as meteorology. Chemistry, with its innumerable resources, fails to discover in the atmosphere any deviations from its natural healthy composition. The thermometer and barometer exhibit no deviations from the ordinary standard of temperature or weight of the atmosphere, which are capable of affording information as to the origin or cause of many phenomena. We know absolutely nothing of the laws which control or regulate epidemic visitations, nor can we at all discover those which seem to regulate and govern revolutions—if we may employ the term—in the climate of different countries.

In some instances these changes are silent and perfectly incognizable to our eye or feelings, manifesting themselves only by a general improvement in the salutary state of the country, either in a greater mildness of the ordinary diseases of the place, or by the absolute annihilation of others which were previously en-

demie—as an instance we may take trismus nascentium, a disease of very common occurrence with us—yet, although from this very fact, greater caution was used and more care taken of infants (particularly those of the labouring class) than at present, the malady is now scarcely known; again, agriculture exerts oftentimes a palpable change on the healthfulness of a place, yet we cannot assign this as a cause operative in our case, since cultivation has been carried to every rood of land for years past, and but little opportunity afforded to accumulations of decaying matter. Perhaps our freedom from insect life may in some way explain the change—but of this hereafter.

“We certainly perceive,” observes Dr. Chowne, in an oration before the Medical Society, “without reverting to proofs which geology might supply, that in the progress of ages and of centuries the temperature of other climates and our own have undergone considerable change, as is evinced by the formerly frozen state of the Mediterranean (1775) along its shores to the distance of fifty leagues, according to Glycus; in the Adriatic having been frozen in the time of the Romans, in the constantly frozen state of the Rhine and the Danube, and other rivers of Gaul and Germany, during the winter, making it necessary to cover the ice with straw to render the passage over them secure, according to Diodorus Seculus; in the freezing of the Euxine, according to Ovid; in the breaking of the ice of the Tiber, in order to obtain water for the celebration of superstitious rites, as alluded to by Juvenal; in the instructions for protecting the cattle from the inclemencies of an Italian winter, as given by Virgil; in the earlier period of our own former harvests, and in the unclothed state of our early inhabitants, as recorded by Cæsar; in the growth of large luxuriant wood on our highest hills, in situations where, from the degree of cold which at present prevails, they would not grow, as commented on by Kirwan; in the larger growth of our black cattle, as recorded by Robertson; and in the numerous other examples furnished by the animal, vegetable and mineral kingdoms of this and other countries.” The same observations apply with equal force to diseases, which undergo variations in their constitution no less remarkable, rendering their treatment at different epochs entirely opposite, demanding the utmost vigilance and study on the part of the physician. Dr. Graves, in his invaluable work, “Clinical Medicine,” gives a translation of Professor Autenreith’s observations on this subject, which are so very excellent and applicable to our present purpose, that no apology is needed for their introduction,—“All diseases contagious and non-contagious, acute and chronic (the latter, however, seldom, except when attended with some degree of general excitement) have been observed to preserve a certain constitution or general character which continues for a number of years in succession, with occasional interruptions, until it is displaced by another constitution of a different character. Thus, during one period diseases are remarkable for being frequently accompanied by a sensation of extreme weakness, sudden sinking of the strength and vital powers, unpreceded by any evident marks of excite-

ment, and attended by a disposition to pass into true typhus. During another period, the tongue is in general loaded with a thick white or yellowish fur, and many other symptoms of derangement in the digestive organs, such as bitter taste, costiveness, or diarrhœa, are constantly observed.

During a third period, diseases are characterised by a remarkable degree of vascular excitement, an evident tendency to local determination, a frequent formation of morbid productions, in a word, by all the symptoms of inflammation.

It is not known whether the transition from one of these periodic constitutions to another takes place suddenly or gradually, but the latter supposition appears more probable, except when the transition is accompanied by unusually great atmospheric changes.

The erysipelatous affection which, both in England and Germany, succeeded the gastric, and accompanied the first appearance of the inflammatory period, seems to have been an example of the gradual transition. Accurate observations are still wanting to determine whether this periodic constitution is confined to certain parts of the world, or extends over the whole, and whether its different species follow each other in a regular order of succession. If their order of succession should at any time be determined, it will enable the physician to foretell the character and most appropriate treatment of future diseases.

The general indications of cure, vary with the nature of the prevailing constitution, and consequently during one period stimulating remedies, during another alvine evacuations, and during a third venesection and the antiphlogistic plan, will constitute the most efficient treatment.

This very circumstance has caused much confusion in medical opinions, and has occasioned the reputation and downfall of many an infallible system, each of which is in its turn consigned to oblivion, and perhaps again revived as a novelty at some future period. The English boast much of the astonishing improvements in science, and deride the ignorance of their predecessors, regardless of the old proverb, “Everything has its day.” Whenever, therefore, the periodic constitution undergoes an alteration, they either obstinately uphold their usual plan, or else blindly embrace some system, to them new, but which really rests upon ancient and established principles. In general, they do not fail to make so much exaggeration in support of their opinions, and thus succeed in misleading so many, that none but very well informed physicians can distinguish the fallacy of their arguments. The medical history of Great Britain affords many striking proofs of these assertions, and is replete with examples of the singular obstinacy with which the English cling to opinions once formed—a circumstance which has materially contributed to obstruct their attaining to general views and impartial conclusions. Even to this day, a warm contest is carried on (less, however, in books, than in the debates of learned societies) between the senior and junior parts of the profession; the former still inclining to Brunonianism, while the latter attribute nearly all diseases to inflammation.

Both, indeed, appeal to experience to prove the justice of their principles, and seem entirely to forget that while the propriety of their practice as applied to particular cases remains unimpeached, the very nature of the diseases themselves may have been changed. A summary view of the character assumed by diseases, during the last twenty years, both in England and in other countries, will perhaps afford a solution of this question. About the end of the last, and during the first three or four years of the present century, the proportion of nervous fevers to other diseases, was as one to eighteen in Plymouth. (Woolcomlie), as one to sixteen in London, (Willan), as one to ten in Newcastle, (Clark), and in Liverpool, one to five, (Currie). Nor was this scourge of mankind less severely felt on the Continent, where typhus, and the diseases closely allied to it, committed extensive devastations, particularly during the epidemics of Erlangen, Jena, Kiel, Ratisbon, and Vienna; Cadiz and Seville were at the same time depopulated by yellow fever, and Europe in general suffered much from repeated visitations of the influenza. An inclination to a sudden sinking of the vital powers, unpreceded by violent reaction, and unaccompanied by any marked symptoms of a gastric or inflammatory nature, constituted at that period the characteristic form of acute diseases, which were always preceded and attended by an unaccountable degree of debility. Stimulating and tonic medicines obtained, therefore, much celebrity; and every physician who practised during that period, attests the injurious or even fatal effects which were produced by venesection and other depletory measures. What is still more remarkable, an epidemic typhoid pneumonia, prevailed in many parts of Germany during the years 1800-1, 2, in which the speedy production of an inflammatory state by means of bark and ether, was the only method which afforded a chance of recovery. These facts must impress every impartial mind with the conviction, that the constitution of diseases has undergone much alteration since that period, and explain why physicians did not then employ copious venesections, but were obliged to content themselves with ordinary cold affusions, acids and mercury.

The reign of typhus appears to have ceased with the influenza of 1804, when a new constitution began—at first more remarkable for the disappearance of nervous fevers and other contagious disorders, than for any peculiar character of its own. Catarrhal and rheumatic complaints, partly attributable to the weather, prevailed for some time, and fevers of an intermitting type became more frequent, forming an evident transition from the purely typhus constitution to that of the vascular excitement of the following years. Some remnant of the typhus constitution was indeed still perceptible in the pectoral complaints which prevailed in London during the winter of 1804-5, and were attended with remarkable debility, requiring the greatest prudence in the use of the lancet; venesection was indeed often entirely contra-indicated, and Bateman says, that it sometimes even proved fatal. The constitution, however, soon developed itself more decidedly, becoming more universally diffused, and obliged physicians

to relinquish their former plan of treatment, and adopt other measures. Derangement of the alimentary canal became its prominent feature in the summer and autumn of 1804, and diarrhoea, terminating in dysentery, was often met with.

This constitution suffered, indeed, a check from the cold of 1805, but it increased again during the following years, and afterwards became still more prevalent, manifesting itself by headache, a bitter taste of the mouth, a loaded yellow tongue, irregularity of the bowels, nausea, and anorexia. The utility of purgatives became now so obvious, that Hamilton's doctrines soon obtained as much celebrity as had been before engaged by the stimulating system. The nervous fever in Nottingham in 1807, the dysentery in London in 1808, the scarlatina in Edinburgh in 1805, and the measles in the same place in 1808, all required the purgative plan of treatment, and calomel became the favourite cathartic. The advantage thus derived from the purgative plan of treatment is abundantly testified by the writers of that period. This gastric constitution appeared on the continent, but its progress was less rapid there than in England, where the inhabitants live in a manner calculated to augment or even to produce a tendency to gastric diseases. There were likewise other circumstances which impeded the formation of this constitution on the continent. Thus in Germany, the purely nervous constitution had scarcely yielded to catarrhal and rheumatic affections, when it was again revived in that unhappy country by the political occurrences of 1805-6-7,—typhus seldom, however, assumed the character of exquisite, for the rheumatic and catarrhal affections with which it was mixed partook somewhat of a gastric nature, as was proved by the great benefit derived from emetics and calomel. This appears in accordance with the fact that the gastric constitution was more fully developed where the ravages of war had not extended, although it required less attention in the treatment than rheumatic symptoms, then likewise prevalent. Thus the agues which were common at Tubigen, about the end of 1806, commenced, in general, with pain in the belly, vomiting, and irregularity of the bowels, a yellow furred tongue, headache, and tumors of the parotids were of frequent occurrence, and, in general, gastric symptoms were by no means rare. These symptoms gradually gained ground, and the reputation of ipecacuanha and cathartics increased in the same proportion. At Ratisbon the constitution was remarkably gastric in the autumn of 1809; and a nervous fever prevailed at Weimar, in 1809-10, which was accompanied by a bitter taste in the mouth, diarrhoea, nausea, and vertigo. Acute catharsis was injurious in this epidemic, but much benefit resulted from the exhibition of castor oil. The advantages, derived about the same time in Berlin from the treatment of fevers by emetics and cooling purgatives, proved that they were there also complicated with gastric derangement,

To be continued.

ART. XXXIII.—A MEDICO-LEGAL ESSAY ON FATAL DOSES OF PRUSSIC ACID.

By WM. WRIGHT, M. D.,

Curator of the Museum, McGill College.

(Continued from page 99.)

Called to a person who has died from poisoning, it is customary for medical jurists, before performing the *sectio cadaveris*, to note the relation of the body to surrounding objects, the place in which it is found, its position and that of things in its neighbourhood. To examine the spot on which the body was discovered, the soil or surface on which it lies, the clothes of the deceased, and the body itself, which includes the discovery of the sex, probable age, stature, degree of corpulence, colour of the hair and eyes, and any peculiar marks which may exist on the cataneous surface. The duration of the presence or absence of animal heat, of cadaveric rigidity, and putrefaction, must also be carefully attended to, since the most certain signs of death depend upon them, and the length of time the party has been dead, is most accurately denoted by them.

Post mortem appearances observable in persons poisoned by Prussic Acid.—*Exterior.*—"The body," says Taylor, "commonly exhales a strong odour of prussic acid." Colourless fluid, probably saliva, may fill the mouth, or have trickled from it, which, as well as the lips, smells powerfully of the poison—depending parts are discoloured by hypostatic congestion. Immediately after death there is great rigidity of the muscles, but it is soon succeeded by an opposite state of flaccidity. Putrefaction, as in other cases of sudden death, may be rapid. Much that is applicable here has been before commented on. *Vide* sections of the eye, face, &c.

Interior—Head.—While removing the scalp and calvarium, much blood usually flows from its wounded vessels. The meningeal and cerebral veins are generally very much distended, with dark blood. There is rarely any unnatural accumulation of serum within the ventricles. In one case, a considerable watery effusion occupied the sac of the arachnoid. An extravasation of blood has been found between the external membranes of a horse, and a strong smell of prussic acid has, in several instances, been detected, from different parts of the encephalon.

Chest.—The odour of the acid is generally very appreciable when this cavity is opened, and has frequently been detected in it, when not manifest any where else. The same, Mr. Hicks has proved to hold good with the lower animals, and he has recognised it there immediately after death, in rats destroyed by *miv.* of the acid, when it did not exist even in the stomach. *Heart.*—In some subjects, all its cavities are charged with blood, while in others, merely those of the right side, the left being empty. Mr. Nunnally, from his experiments on brutes, found that if from any cause death were delayed, all the chambers of the heart, and especially those of the right side, contained more or less blood. If, on the other hand, the death were sudden, the left cavities, and principally the ventricle, were empty, and rigidly con-

tracted, while the right side was in some, though by no means in all, much distended. These results admit of application, by analogy to the human subject. Magendie states, that the heart has its irritability so completely and immediately extinguished by the pure acid, that it is insensible, even to the stimulus of galvanism. This, however, later investigators find, not to be universally an immediate consequence. *Lungs.*—Guy writes thus, they are "sometimes pale, more generally gorged with blood," especially in dependant parts, which may, on that account, be of a black colour. When cut into, their colour is "a light rose pink," particularly in those situations from which the blood has subsided. The large bronchi have been filled with a reddish, frothy serum. The aorta and its branches are almost always empty, while the pulmonary artery, and other veins are filled. "The larynx, trachea, and œsophagus have been said to be reddened."

Abdomen.—The odour has been detected, in some, in the peritoneal cavity, particularly in the vicinity of the stomach; in others, solely when the latter has been opened; it is generally inappreciable in the intestines, a sour smell existing in lieu of it. Mr. Hicks detected it five days after death, in the stomach. The peritoneal covering of the intestines, has had a reddish tint. Dr. Letheby remarked in all his cases, a particularly congested state of the whole gastric internal surface, with occasional white patches and red dots. Dr. Geoghegan declares that the only morbid appearance worthy of note in a man, who had died from $\frac{3i.$ of prussic acid, was a patch of dark red extravasation, under the mucous membrane of the stomach, near the pylorus. The stomach, in this case, exhales the odour of the acid, although it had been exposed for three days. Taylor states, that "in some rare instances," the stomach and alimentary canal "have been found inflamed." Mertzdorf examined two cases, where the gall-bladder had a blue tint. The kidneys and liver, are usually much congested with venous blood.

The Blood.—Is of an unusually dark colour, with a glimmering blue tint, is perfectly fluid, flows out copiously from a cut surface, gives out a strong odour of prussic acid, and is collected in the veins. The colour above mentioned, possibly, might not be present, for, in some exceedingly rare cases, it has been highly florid.

Remarks.—From the above details, it is evident that the post-mortem appearances, observable in persons poisoned by prussic acid, result from an accumulation of fluid blood, of a dark blue hue in the veins and their capillaries, in fact, that they are those of asphyxia, and as this condition arises from such a multiplicity of causes, no direct proof can be obtained from them alone, of the particular agent employed in their production. They are serviceable in disproving that a corrosive or irritant had been swallowed, and that the poison had been introduced into the stomach after death. Knowing that prussic acid acts so rapidly, and produces these effects, it is not justifiable, if its presence be found at a post-mortem, to imagine that they were due to some circumstance operating during the time that existed between the former's reception and the patient's death. Should morbid alterations be present they, as a rule, do not re-

sult from this poison, since its action is so transient that no time exists for their generation. With regard to the state of the heart, I think it may warrantably be asserted that, when death is rapid, its left cavities will be empty, as in apnea, or death commencing at the lungs, and that when death is slow, all its cavities will be full, as in asthenia, or death commencing at the head. Another important fact, especially to the practitioner, is that the irritability of the heart is rapidly exhausted. Hyperæmia of the gastric mucous membrane, is always to be expected, either universal or partial—continuous or intercepted, and possibly interspersed with white patches or red dots. The colour of the gall-bladder above alluded to, was, not improbably, due to the deposition of prussian blue. If so, it tends to prove that the latter is formed in the blood, and that the liver aids in depurating the matter of the former. The odour may be detected from several sources, and it is not impossible that it may be found in the chest, when absent every where else. Its presence in the blood and internal cavities, shews that it has been absorbed into the vessels, and transmitted through the invisible pores of their parietes and neighbouring tissues.

Tests for the detection of Prussic Acid.—It has been said that they are useless if the body have been above ground for three, or have been confined for seven days. That this is not invariably the case, will shortly appear.

The Odour.—1. As several observations have already been made concerning it, I will now merely allude to three or four points connected with it.

When the acid is diluted, the odour resembles that of peach blossoms, and leaves a peculiarly acrid sensation on the fauces. It is very similar to that of nitro benzine, and to a smell that is said occasionally to arise from the viscera of those who had never taken Prussic acid. The testimony it affords is most conclusive, if it be derived from the blood, or parts to which there is no access, except by the circulation. It may not be appreciable if the body have been long exposed before it is examined, especially to the open air, or a shower of rain, or other circumstances favourable to evaporation; if the dose be small; if it be much diluted, decomposed, or predominated over by other odours, and if the person have lived long enough to exhale it freely from the lungs. The following will serve to illustrate the period it may be persistent: In a case reported by Mr. Norbland, he said it was absent eighteen hours after death, when the body was examined, while two of five witnesses declared they detected it. According to Dr. Letheby, it was evident for twelve hours; and according to Mr. Davies, for seventeen or eighteen hours after death, about the mouths of C. W. Duckett, and E. Williams, whose cases have already been mentioned. Mr. Taylor (*Elements Medical Jurisprudence*, 1844,) believes seven days, after the taking of the acid, to be the longest time that its odour has been found. But this must only be considered as the mean duration; for Dr. Lonsdale, during his experiments on dogs, experienced it for eight or nine days, post mortem, and four or five days after the failure of chemical tests in the detection of the poison. Hence, as Orfila contended, the odour may detect prussic acid when chemical tests fail to do so, twenty-three days after death, is, I

believe, the longest time that tests have proved the presence of the poison. This is on the authority of Mr. West, in the *Provincial Medical and Surgical Journal*, July 1845, who says, "I have distilled a portion of the contents of the stomach at this time, twenty-three days after the poison had been taken, and find the smell, the precipitate with nitrate of silver, and the prussian blue precipitate; all these are produced, apparently, in the same degree as at first."

The reagents employed in the chemical analysis of a liquid supposed to contain prussic acid, are the nitrate of silver, protoxid of iron, sulphate of copper, either alone or with tincture of guaiacum, and the sulpho-cyanid of ammonium. To each of these, a few remarks will now be appended.

1. *Nitrate of Silver.*—Induces a white precipitate, the cyanid of silver, the properties of which are.—First, its solubility, if bulky in boiling, and if scanty in cold as well as hot nitric acid. Second, its solubility in the volatile and fixed alkalis. Third, by heating it, the cyanogen entering into its composition will be evolved, which, when inflamed, burns with a rose-red coloured flame; and when imbibed by bibulous paper, wetted with a strong solution of the mixed oxides of iron and subsequently dipped in dilute sulphuric acid, causes a stain of prussian blue. Its nature may also be illustrated by the following procedure of Mr. Austin's (*London Lancet*, July 1846):—Mix the precipitate with a small quantity of oxid of iron and carbonate of potash; fuse them; dissolve the mass in ʒss. of distilled water, filter and acidulate by a few drops of hydrochloric acid. Divide the solution into two parts, to one of these add a few drops of a solution of sulphate of copper—to the other a like amount of tincture of iron; in the first a chocolate brown, and in the last a blue precipitate will subside—prussiates of the respective bases. When operating on complex mixtures it is to be remembered that organic matters, heated in contact with an alkaline base or metal, will produce cyanogen. Nitrate of silver, if added to a solution of the acid, detects pt. 1 of it in pts. 7680 of liquid; but if a watch glass be moistened with it and held over the solution, pt. 1 of the latter in pts. 15360 of its menstruum will be detected. The least amount of cyanid of silver, from which a flame can be obtained, is 1-10 gr., = 1.50 gr. anhydrous acid = gr. ij. of pharmacop. acid, or less than gr. j. of Scheele's. When less than this the other modes of proving cyanogen may be successfully instituted.

2. *Protoxid of Iron.*—Add a protosalt of iron and then an excess of liquor potassæ, remove the grayish green precipitate thus induced by sulphuric or muriatic acid, and after exposure to the air prussian blue will be produced, visibly tinting the liquid by the intensity of its hue. Mr. Taylor says, "This test is peculiar to prussic acid and free from all objections." When added to a solution of the acid it detected pt., of it in pts., 920 of fluid; and when a watch glass was moistened with the test and held over the solution of prussic acid, pt. 1 in pts. 3840. These statements prove that it is 1/11 less delicate than the former test.

3. *Sulphate of Copper.*—Supersaturate the liquid with potassa, then add sulphate of copper when a greenish

precipitate will subside and will change to a white on the addition of a little hydrochloric acid. It discovers the poison in 20,000 parts of water, but, according to Pereira, "the results are not sufficiently striking, and the inexperienced manipulator may fail in getting any evidence of hydrocyanic acid."

4. *Tincture of Guaiacum and Sulphate of Copper*.—When the tincture is added the hydrated resin of guaiacum falls down, and, by the subsequent use of the sulphate, a blue solution is produced. The propriety of considering this a test is, I think, questionable, since the effect of adding tinct guaiacum to any aqueous menstruum is that just mentioned; and the result of adding Co. Tr. guaiacum, which contains ammonia, to copper, is a blue solution. Spt. nitric ether also strikes a blue color with tinct of guaiacum.

5. *Sulpho-Cyanid of Ammonium* when added to a persalt of iron as the muriated tincture, causes a very deep blood red color. This reagent may be prepared by adding a drop of sulphuret of ammonia to a very weak solution of prussic acid, and heating it until it becomes colorless. It was proposed by Liebig in April 1847; is very simple, characteristic, unobjectionable and delicate, succeeding where the protoxid of iron fails; so that Liebig has "done for prussic acid what Reinsch has recently done for arsenic." Mr. Taylor (*Medical Gazette*, April 1847), offers a modification of the above, which consists in preparing the sulpho-cyanid of ammonium by exposing hydro-sulphuret of ammonia to the vapors of prussic acid. The advantages of this latter, "are the avoidance of heat, and the objections to which its employment gives rise, and its applicability to organic substances, even in a state of putrefaction." I may add, that the blood red color above mentioned is quickly removed by a few drops of bichlorid of mercury.

Procedure for the Detection of Prussic Acid.—Exclusive of the ordinary observances and precautions that should be enforced at every important sectio-cadaveris, particular attention must be directed to the state of the eyes, lips, face, muscles and general surface, to any odor that can be detected from the mouth, nose, &c., and the cavities immediately after they have been carefully disclosed. The gastric and other veins are to be incised and their contents minutely examined. The state of all the internal viscera, particularly that of the larynx, fauces, œsophagus and intestines is then to be ascertained, but the stomach is the organ to which we are chiefly to look for evidences of the poison; very great care must therefore be observed during its removal, before doing which, it should not be neglected to apply ligatures to its orifices, or, perhaps more correctly, to the lower part of the œsophagus and duodenum as well as to the bile and pancreatic ducts. On opening the stomach the odor is first to be obtained, if present; and, for the sake of certainty, it is advisable that our opinion concerning it be confirmed by the testimony of other witnesses; the contents are then to be preserved as well as the products obtained by washing its cavity with water and alcohol. The fluid portion of these is to be separated by filtration from any insoluble matters, and is finally to be tested. Unless it be colored where it should, as Orfila proposed, be agitated or digested with charcoal and

refiltered before the application of the reagents. If no indication be afforded from the liquid being complicated with organic matters, these are to be isolated by placing the mixture into a retort and distilling 1-8th of it, by the heat of a vapor bath into a receiver kept cold; when it is alkaline, from decomposition, it must first be neutralized by sulphuric acid. If there should be any vomited matters, which is very unlikely, or if any of the poison or liquid in which it was taken remain unswallowed, and be attainable, they are to be treated in the above manner. An objection has been raised to the employment of heat, owing to prussic acid being generated by the decomposition of animal matter. "This," says Dr. Guy, "is a mere conjecture, altogether unsupported by experiment." It has also been contended that hydrochloric acid might pass over and embarrass the results. But this can only occur when the liquid is highly acid, and it is then avoided by neutralizing it by potassa and adding acetic acid before commencing the distillation. Assuming, then, that a clear liquid has been obtained, how should it be tested for prussic acid? The following procedure would be, I conceive, most appropriate and conclusive. Having marked its odor, divide the liquid into two portions, from one of these obtain cyanid of silver. Expose a portion of it to heat and either inflame the escaping gas or convey it into an alkaline solution of the mixed oxides of iron; after the decomposition remove the surplus oxid of iron by sulphuric or hydrochloric acid, and prussian blue will be left. Treat the remaining cyanid of silver in the way recommended by Mr. Austin. Obtain sulpho-cyanid of ammonium from the other portion of the liquid, either by Liebig's or Taylor's method, and add to it a persalt of iron: lastly, remove the blood red color thus caused by bichlorid of mercury. If the liquid originally obtained be in large amount, and smell strongly of prussic acid, all the tests may be applied in the order given in a preceding page. If the results of these procedures be those previously recorded, the evidence of prussic acid in the fluid, is indubitable. But it is from the integral and not from the integrant portion of the analysis that this conclusion must be deduced, as thereby any fallacies which append to the latter are averted.

Before proceeding with the above measures, trial tests may be instituted by dipping strips of white paper in the liquid, and afterwards moistening them with the reagents, or a little of it may be put into the bottom of one watch glass, while that of another is moistened with a strong solution of the test. The concave surfaces of the two are to be brought, vis a vis, and left so for a short time, when, if the acid be present, it will have come in contact with the test and produced the specific change. The volatility of the acid may be accelerated by the application of the flame of a spirit lamp to the convex surface of the glass containing it.

Besides these manipulations with the liquid, the stomach is to be placed in water for some time, and then transferred to a bottle having a wide mouth, over which there is placed a watch glass moistened with nitrate of silver on its concave surface, or that looking to the interior of the bottle. In ten minutes a film of cyanid of silver has frequently formed. After this another glass,

moistened with liquor potassæ, may be placed over the bottle, sulphate of iron and muriatic acid being subsequently added, when the characteristic prussian blue may be developed. This simple plan has succeeded when tests applied to the liquor obtained by distillation have failed to prove the existence of prussic acid in it. On the same principle, before opening the cavities of the abdomen or chest, particularly the latter, a small aperture has been made in the parietes, and a watch glass, prepared in the above manner, accurately fitted, and in half an hour afterwards satisfactory results have been palpable.

Supposing that prussic acid has been found in the stomach of one who has died suddenly, is this a sufficient proof that it caused death? If the quantity be large, the natural rejoinder is an affirmative, but a little reflection will shew that it may have been introduced there after death, or that the person may have died from disease after taking it. The answers to these possibilities, it will be remembered, were given in a former page, and will therefore not be transcribed here. Again, it may be said that prussic acid was generated in the stomach, from the putrefaction of various animal and vegetable matters—as unsound cheese and erget of rye. This, however, is overruled when the poison is also detected in the blood and distant parts of the body.

The two great forms in which prussic acid exists are the anhydrous, or without water, and the hydrous, or with water. With the latter alone we, as medical jurists, are concerned. All estimates of the strength of the hydrous are determined by the amount of anhydrous they contain; hence the utility of knowing some process by which this may be discovered, such as the following which is both simple and exact:—100 grs. of the acid are to be added to a solution of nitrate of silver as long as any precipitate (cyanid of silver) is formed, this is to be collected on a filter, whose weight is known, then washed and dried by a heat not over 212°. All the water being expelled, ascertain the weight of the filter and the precipitate, from which subtract the original weight of the filter, when the exact amount of cyanid of silver, that has been formed, will be known. This divided by 5 gives the amount of anhydrous acid in the 100 grs.—5 is used as a divisor, because the atomic weight of cyanid of silver is 27.33, that of anhydrous prussic acid 134.56 or almost as 1 : 5. The chief varieties of hydrous prussic acid that are met with are—1. Scheele's, which contains 5 per cent of anhydrous acid; 2. Vauquelin's, 3.3 per cent; 3. London Pharmacopœia, 2 per cent; 4. Edinb. Ph., 3.2 per cent; 5. Dub. Ph., 1.6 per cent; 6. Other specimens which may vary from 1 to 50 per cent. Hence, equal amounts of different specimens produce very dissimilar consequences when taken; and as the same preparation, at different times, varies greatly in strength from evaporation and decomposition, a solution is afforded to the problem, why the remarking and taking of an hurtless prescription, has been fatal when dispensed by different druggists, or by the same druggists from different kinds, or even the same kind at different times.

The quantity of Prussic Acid that constitutes a fatal dose, i. e., a dose that destroys life.—The smallest

fatal dose is stated to be that taken by the seven Parisian Epileptics, which, according to Orfila and Christison, was equivalent to 2-3rd; and according to Taylor and Guy, to 7-10th of a grain of pure or real acid. These statements are, however erroneous, and so, in consequence, must be the numerous corollaries that have been deduced from them, for Professor Guibourt (*Pharmaceutical Journal*, May, 1845) has proved that the exact dose swallowed by each invalid was equal, at least, to 5½ grs. of anhydrous prussic acid, and that the fatal mistake arose from the dispenser of the pharmacie centrale making a syrup of prussic acid for their use from anhydrous, instead of from Scheele's acid, by which the preparation contained 19 grs. instead of 1½ grs. of anhydrous acid to the ʒj (French).

To illustrate the present subject I have compiled the following table from a number of cases, the most accurate of which have only been retained:—

Age.	Quantity of Hydrous Acid.	Strength of Anhydrous Acid.	Quantity of Anhydrous Acid.	When the Symptoms occurred.	When Death occurred.	Case reported by
F 40	ʒss.	3½ p. c.	1½ grs.	Immediately	In 5 minutes	Dr. Banks
M 22	mxl.		9-10 gr.	In 2 minutes		Mr. Nunnelly
F Adult	ʒiiss.	5 p. c.	4½ gr.	Instantly		Hicks
M 21	ʒij.	1.6 p. c.	Nearly 2 grs.	In a few minutes	In 1 of an hour	M. Sobernheim
M Adult	ʒvss.	1½ p. c.	About 5 gr.	In 3 minutes	In 5 minutes	Dr. Geoghegan
M Adult	ʒviij.			About 3 minutes	In 10 minutes	Mr. Nunnelly
M Adult	ʒij.	Common		In less than 2 minutes	In 4 or 5 minutes	M. Sobernheim
Adolescent	ʒviij.	5 p. c.	24 gr.	In one minute	In 4 minutes	Mr. French
F Adult	ʒij. or ʒss.	Alcoholized	40 gr.	Immediately	In 5 minutes	Mr. Hicks
M 44	ʒss.	5 p. c.	12 gr.		In 5 minutes	M. Hufeland
M Adult	ʒviij.	over 3 p. c.	About 21 gr.	In about 1 minute	Less than 20 minutes	Mr. Godfrey
M Adult	mxxxviiij	2 p. c.	5½ grs. to each.	Had begun in 10 min.	15 to 45 minutes	Dr. Sewell
M Adult		Large dose	1½ gr.	In 2 minutes	In 2 minutes	Case of 7 Epileptics
						Dr. Geoghegan
						Dr. Christison

N.B.—The instances of Recovery are those opposite whose cases there is a blank in the column "When Death occurred."

Inferences.—1. That the smallest fatal dose is 9-10 gr. anhydrous acid.

2. That the largest dose from which recovery has occurred is $4\frac{1}{2}$ grains of the anhydrous acid.

3. That the boundary between a harmless and fatal dose is indefinite.

4. That the shortest time in which death occurs from a fatal dose is 2 minutes.

5. That the longest time in which death occurs from a fatal dose is 45 minutes.

6. That a small dose (9-10 grain) has killed as rapidly as a large one (40 grains), and hence celerity of action is not invariably dependant upon the amount of poison taken.

7. That equal doses do not kill different persons at equal periods.

8. That 5 minutes might not unjustly be considered as the most common duration of a case of poisoning by prussic acid.

With regard to No. 6 inference, it may not be amiss to mention the circumstances which affect the poison's activity. These are—the age, strength and organ of the individual, empty or full state of the stomach, quantity and degree of concentration of the poison, the repetition of the dose, and the mode of its administration. From Mr. Nunnally's experiments it appears, as might be expected, that the more vigorous and aged the animal, the larger the dose required to destroy life. The very young, however, seem less susceptible than those of the same species who are a little older than them. The empty state of the stomach is the most favorable to its action and place—possibly the reason why the same animal is not similarly affected by the same dose at different times.

Commencement of the Symptoms.—Much detail under this section is rendered unnecessary by the statements laid down when discussing the indications of poisoning by prussic acid, so that, at present, I shall merely draw attention to some of the facts contained in the preceding schedule.

1. That the symptoms may commence immediately.

2. And that this rapidity of origin has followed alike the taking of 5ss of hydrous acid, of acid equivalent to 9-10 gr of anhydrous acid, and of that which contained 40 grs. of anhydrous acid.

3. That they are seldom delayed in appearing beyond 3 minutes.

4. That this delay may follow after 5 grs. or $5\frac{1}{2}$ grs. of anhydrous acid have been swallowed.

5. That no delay has occurred after the largest dose, (40 grs. anhydrous) and merely a delay of 1 minute after the less great doses, as 24 grs. anhydrous acid. Dr. Lonsdale stated that ʒj. of Scheele's acid would affect an adult in one minute, ʒiij. or iv. in 10 or 15 seconds, and a stronger dose immediately. These statements were founded on experiments made by him on animals, but they do not, as appears by the above, apply to the human subject.

(To be continued.)

ART. XXXIV.—REPLY OF DR. MACKELCAN TO DR. HALL.

To the Editor of the British American Journal.

Hamilton, July 31, 1848.

SIR,—In the July number of your journal, a violent attack is made on me by Dr. Hall, charging me with endeavouring to injure his professional character, and ridiculing an opinion of mine as "grossly wrong."

I have two grounds of complaint against Dr. Hall in this matter. 1st. That he never sought an explanation from me of charges which he well knew emanated from members of the profession who were hostile to me. And secondly. That he has reserved his attack until my most authoritative evidence in the matter is in the grave.

The first charge against me which I shall notice, is that extracted from a letter from some medical friend of Dr. H.'s, dated March, 1848, and referring to a circumstance said to have occurred six months previously, and observing—"You were not four hours from Hamilton, before he (Dr. Mackelcan) found fault with the legs being drawn up." It was some days, I think not less than ten or twelve, after Dr. Hall left this place, before I had any suspicion that the legs had not become contracted involuntarily. The patient was speaking to me of his prospects of recovery, and I expressed my opinion that the contracted state of the limbs was the most unfavorable symptom, as I thought it indicated mischief in the spinal cord, and that it was a feature of the case which I was not aware of until his arrival in Hamilton. He then told me that his limbs had not contracted of themselves; that they were straight until placed in a bent position, and supported there by pillows; and that after remaining so for some time, they could not be again extended. On hearing this account, I uttered an expression of surprise, not having any reference to the treatment adopted, but elicited from me by the ray of hope which it threw on the case, as every medical man must know, that a contracted state of the limbs so produced, was of much less moment than that arising from involuntary contraction of the flexor muscles. An intimate friend of the patient, in answer to an enquiry from me, writes:—"I distinctly remember having heard the late Mr. F. say, that an expression of surprise which escaped you when you first learned from him, some time after his arrival in Hamilton, the cause of the contraction of his limbs, led him to infer your disapproval of the treatment at Montreal in that matter."

This subject was more than once subsequently referred to, and the patient appearing vexed at the occurrence, I told him that the limbs were probably placed in that position for the purpose of relieving him from suffering, for in fact I could conceive no other reason. Since I have received the diary of the case, I perceive that there is reference to a gradually commencing contraction of the flexor muscles of the leg in July, but no reference to the limbs being placed in a fixed position by Dr. H.'s orders. There may be some omissions, however, in the diary, as it is evidently partly written by memory, as Dr. H. states, under the head June 8, that the patient's brother was notified of his danger

'by telegraph.' Now, it so happens that the telegraph from Montreal to Hamilton was not in operation until the beginning of August following.

The next point appears to be, that I mentioned the supposed fracture of the sacrum for the purpose of injuring Dr. Hall and the other physicians in Montreal who were consulted in the case. Passing by for the moment the attempts in connexion with this point to throw ridicule on my professional knowledge, I must, and will contend, that any medical man having a patient in charge, and believing that an injury has occurred, or a disease is present, which some previous attendant on the case has not discovered, is at perfect liberty to mention it, without being liable to the charge of intending thereby to injure his professional brother. If such were not the case, our lips would be sealed, and we dare never express an opinion varying from that of a previous medical attendant. On the absurdity of such a position I need not dwell. At this part of the subject, Dr. H. charges me with having made the discovery of the fracture before I wrote to him on the 29th of October, and not referring to it in my letter, makes the bitter remark, that my end "would not have been gained by this too honest act." The discovery of the fracture was not made until the day before the patient and his brother both wrote to Montreal on the subject, and the date of their letters is Nov. 12, shewing a lapse of fourteen days; and yet Dr. Hall presumes to endeavour to fasten upon me a charge of duplicity and want of candor, although the dates of the communications might have shewn him its fallacy. The description of the supposed injury, as given in the journal, is very different from the opinion I had expressed. I never suspected any injury to the ilium, (or haunch bone); and as the sacrum is one bone and not several, Dr. H. must have known that the description contained in the letters from the patient and his brother could not be mine, but was one of those mistakes which non-professional men constantly fall into when attempting to describe in technical language the injuries or diseases of the human frame. Had Dr. H. possessed sufficient candor to admit my own description as contained in my note to the memoranda of the case, he would have seen that I describe it as merely "a transverse fracture of the sacrum;" and he could have ascertained, if he had not already heard it, from his friend, Dr. Dickenson, who expressed it to more than one person in Hamilton, that I evinced no other disposition at the post-mortem examination than a desire to arrive at the truth. While charging me with an attempt to injure his professional character, Dr. H. seems to overlook that he is endeavouring to do the same with mine, by stating that I had given a diagnosis which he characterizes as "grossly wrong;" and, as if to accomplish that object more effectually, forwards the journal to several gentlemen in Hamilton not members of the profession, and to some of whom I believe he is not personally known. Yet how stands the matter? I expressed my suspicion that there was a transverse fracture of the lower part of the sacrum with slight depression; and the post-mortem examination discloses the fact, that "its two lower sections as well as the os-coccygis were destroyed by caries." Where is the proof, then, of any

error on my part? Have I not rather a right to consider this fact as a presumptive proof that there was a fracture, and that the lower portion of the bone possessing less vitality in consequence, gave way to the ulcerative process and disappeared. And is there such extraordinary sagacity needed, or rather is it so impossible to discover a fracture with displacement five months after the injury, that Dr. H. should endeavour to hold up to scorn one who could presume to express such an opinion? Were it so, there would be an end to all actions for damages in cases of mal-practice.

The remaining charge is, that "the difficulty experienced in the settlement" of Dr. Hall's claims for professional services, was due to my "unprofessional interference in the matter."

In reply to this charge, and in corroboration of the statements I have made on the other points, I here give the replies of Mr. E. J. F. to enquiries put by me to him on the subject.

1st. "I heard my brother frequently state that his legs were straight until they were bolstered up by the medical men in Montreal; and he used to blame Dr. Hall very much for placing them in the position they were in when the case was put under your hands.

2d. "I never heard you say anything prejudicial to the treatment pursued by the doctors in Montreal, excepting that you thought opium was administered to him at night in too large doses, and that you could not conceive why his limbs were allowed to be drawn up in the manner in which they were.

3d. "I never heard you say anything against Dr. Hall's account, nor do I think your opinion was asked about it.

4th.—My brother expressed his dissatisfaction of Dr. Hall to friends in June, and myself in July last, and wished he was entirely in the hands of Dr. McDonnell, in whom he seemed to have much greater confidence than in Dr. Hall.

It is with reluctance I introduce the matter referred to in the last paragraph, but as Dr. H. has accused me of endeavouring to injure him with the patient, I feel it necessary to do so in self-defence, as it shows that his dissatisfaction with Dr. Hall, arose months before I had seen him, and cannot, therefore, with any justice, be attributed to me.

The only further remark I shall make, is, that it is both ungenerous and unjust of Dr. Hall, to refer, in the manner he does, to the attack made on me by several of the profession in Hamilton, and published in the *Hamilton Gazette* and other city papers, when on the day of his arrival here, that he might be aware of the position in which I stood towards them, I placed the paper in his hands, and, after perusing it, he continued his intercourse with me with more cordiality even than before. Dr. H. now refers to that charge, as if it were well founded. Had he thought it so, he should have then ceased all intercourse with me—for were it true, I should deserve to be scouted from all respectable society.

After I had written thus far, I received a letter from Dr. Hamilton, of Flamborough, from which I give the following paragraph:—

"I think it was on the 16th November last, you re-

quested me to see Mr. F. in consultation, and after giving a history of the case, substantially as it has since appeared in the last number of the *British American Journal of Medical and Physical Science*, you then intimated your suspicion of a fracture of the sacrum; but neither at the time, nor on any subsequent occasion, did I ever understand you as asserting, in positive terms, that a fracture did exist, which had been overlooked and undetected by the medical gentlemen under whose charge Mr. F. had first fallen—on the contrary, you spoke with deference and respect, generally, of the great attention and professional skill of which Mr. F. had had the advantage, while in Montreal; if there was an exception to this, it was to the injection which had been thrown into the bladder, (from which the patient himself said he suffered much), and to the allowing the tonic flexion of the legs to go on without any counteracting effort."

I annex a letter from Dr. M'Cargow, who met Dr. Hamilton and myself in consultation on the case, and who is also an old friend of the late Mr. F.

And now, I think, I have conclusively shewn, that I made no such diagnosis as Dr. Hall has attributed to me, and that where I suspected a fracture, there is no evidence to prove I was in error—further, that where I differed slightly as to the treatment, it was communicated to the medical gentlemen I met in consultation—and, of course, in professional confidence—and would never have been known to any one else, had it not have been elicited now by Dr. Hall's attack upon me;—that I had nothing to do with the patient's dissatisfaction with Dr. H., as it existed months before I had seen him, and could not have arisen from the regret I expressed about the position of the limbs, which was not intended, or used in a manner, to injure Dr. Hall—and lastly, that I did not interfere in the matter of Dr. H.'s charge for professional attendance.

JOHN MACKELCAN.

Letter from Dr. M'Cargow to Dr. Mackelcan.

York, Grand River, July 27, 1848.

My Dear Sir,—You write me to say, whether I ever heard you endeavoured to detract from Dr. Hall's professional treatment of my late friend, Mr. William Ferguson's case. I must say, Not at all; except your disapproval of Dr. H. allowing the lower extremities to become contracted; and I must say, that the patient gave me to understand that the limbs were extended, until flexed, and supported in that position, by Dr. Hall's orders. You also spoke of the difficulty you experienced on the arrival of the patient of emptying the rectum and colon of their contents, which you considered must have arisen from inattention to the state of the bowels.

I think you considered the lower part of the sacrum fractured, as I also did the upper part. The *post mortem* examination, however, showed I was wrong—the hard ridge produced by the pads having deceived me.

Dr. Dickenson told me several months ago, that Dr. Hall, when he gave up the case to you, mentioned that he suspected a fracture existed in the lower part of the vertebral column.

At the autopsy you did not attempt to make out any case different from that which the morbid appearances

naturally suggested. On the whole, I am persuaded, that you so fully appreciated Dr. Hall's acknowledged skill, and his high standing in the Profession, that you could never have spoken on this occasion in any way tending to arraign his medical skill; though it would appear that foul representations, from some quarter, have given him cause to suspect you of doing so.

I am, very dear Sir,

Yours respectfully,

WILLIAM M'CARGOW.

Dr. Mackelcan, Hamilton.

[I publish the above communication, received during the month, from Dr. Mackelcan. I do so as an act of justice to Dr. Mackelcan, and I do it therefore with pleasure: but I, nevertheless, cannot but regret for Dr. Mackelcan's own sake, that he has given me so complete an opportunity of substantiating my charge against him, and this on his own showing.

The charge preferred against Dr. Mackelcan, and this, too, in unmistakeable terms, howsoever much Dr. M. may feel desirous of narrowing it down, was that of stigmatizing the diagnosis of four physicians in this city as faulty and imperfect, and their treatment in the particular case improper in certain respects. Dr. M. made no secret of his opinions on this matter, although, in my last paper, I confined myself simply to the documentary proof of it, as furnished by letters from the deceased, his brother, and other gentlemen in Hamilton; yet, by whatever means the report was made to circulate, it was notoriously current in Hamilton, Toronto, and Montreal, "to the prejudice of all who were concerned in the case, in this city, but of myself especially." But a procedure such as this is a violation in the highest degree of the ethics of the profession.—Dr. M., being a member of the profession, is amenable to it for breaches of its rules. The "offence was rank," the ban was spread far and wide, and the antidote required equal extension, not only on this account, but also to check a practice which is far too prevalent, and than which nothing tends more effectually to throw discredit on the science of medicine. Whether I have been wrong or right in my premises and in my conclusions—let the following observations on Dr. Mackelcan's answer prove. And,

1st. With reference to the contraction of the lower extremities. Dr. Mackelcan affects to deny the insinuation of any improper practice against the Montreal physicians in this respect. Such is the full intent of his own assertion, if there is any meaning in words. Yet how is it substantiated. In the answer to the second query put to Mr. E. J. F., the latter distinctly says, "I never heard you say anything prejudicial to the treatment pursued by the doctors in Montreal, *excepting that*

you thought opium was administered in too large doses, and that you could not conceive why his limbs were allowed to be drawn up in the manner in which they were." Dr. Mackelcan has here furnished additional proof of the fact; and while he demonstrates his own want of ingenuousness in the matter, he, at the same time, furnishes a lamentable proof of the versatile character of his own judgment. Thus: For ten or twelve days he regarded the flexion of the legs as involuntary; all of a sudden, to suit the whim of a capricious patient, and upon his simple representation, he regards it as the effect of long continued voluntary contraction, and can conceive "no reason why they were placed in this position." This last idea he *must* have again abandoned, for I cannot do *him* the injustice of supposing that he continued to indulge the "ray of hope" which this idea engendered, until the last, and "that he placed the left thigh along the side of the abdomen, and the right knee resting in the axilla, with the heel drawn against the nates," merely "for the purpose of relieving the patient from suffering." No; when I observe that this very condition of the extremities formed a matter of consideration with Dr. M., at the consultation in Hamilton, when he was made acquainted with my opinion as to its cause, and the futility of every attempt to counteract it, (even the nurse could have informed him on this matter, if he had forgotten my own remarks,) one of two things must have happened when he changed his opinion. 1st. He either founded his judgment upon the whim and captious observation of his patient; or, 2nd. He neglected to justify "the previous practice as far as candour and regard for probity and truth permitted."† Upon the horns of this dilemma I must, with regret, leave Dr. Mackelcan, permitting him to select whichever he pleases, for upon the one or the other he must, let him struggle as he may, impale himself.

The quibble about the telegraph, is utterly unworthy of the subject. Mr. F.'s brother was notified on the

* The reader is requested to compare this with Dr. Mackelcan's third conclusion, beginning with the words, "further, that where I differed slightly as to treatment," &c.

† "A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another member of the faculty, in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or been regularly notified that his services are no longer desired. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified, as far as candour and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and as many diseases are naturally protracted, the want of success in the first stage of treatment, affords no evidence of a lack of professional knowledge or skill."—*Code of ethics, Chap. 5., Sec. 4.* See *Brit. Amer. Jour.*, vol. 3, page 17E.

occasion specified—by POST, if it pleases Dr. Mackelcan. The fact of that notification, Dr. Mackelcan *cannot* dispute, nor does he attempt it, although he cavils at the means. "Drowning men, it is said, catch at straws," and the quibble savours strongly of the truth of the proposition.

2nd. I now come to the question of the fracture. The post-mortem report signed by Drs. Mackelcan and McCargow, merely indicates with reference to the sacrum, that "the prominent parts of it were denuded," (of periosteum?) a large bed sore occupying its region, and "that its two lower sections, as well as the os coccygis, were destroyed by caries." Drs. Dickenson and Craigie, certify "that no mark of fracture, displacement or injury of any of the bones of the pelvis could be detected, other than caries, affecting the sacrum." If any thing is to be gleaned from these testimonies, we have then, evidence both negative and positive, *against* the existence of a fracture of the sacrum. Superadded to this, however, we have the fact, that the deceased was examined most carefully by myself and Dr. McDonnell repeatedly, and by Drs. Nelson and Arnoldi, all suspecting and anxiously *looking* for fracture, and this *immediately* after the accident occurred. Is it likely; can it be possible, that we could have all overlooked such a fracture, when it was *recent*, and that it should be detected five months afterwards, when union must, of necessity, have taken place, and "a slight depression" its only indication. Such a fact speaks for itself—Dr. Mackelcan might have found a much more simple and unstrained solution of the cause of the caries of the lower portion of the sacrum, in the *sloughing* from the bedsores, than in the *presumptive* one which he specifies. Dr. Mackelcan will excuse me from following him into his hypothesis, for it is one which condemns itself. I wish not to deal with possibilities, or with presumptive probabilities; I recline upon facts. Thus: Dr. Mackelcan may be a practitioner of sound judgment, who, deliberately reflecting upon all his premises, draws from them a legitimate and well weighed conclusion—*That is a possibility.* That he is a practitioner of an imaginative turn of mind, and considerable ingenuity, may be not only fairly *presumed*, but is a *fact* fully developed by the train of reasoning which he has adopted, and which cannot fail to be appreciated in accordance with its deserts by every sensible medical practitioner of ordinary experience.

But I have not yet done with the two points upon which I have dilated. Dr. Mackelcan's letter, the only one received from him, is dated Oct. 29th. Dr. Mackelcan admits the alteration of his opinion, as to the cause

of the flexion of the legs, to have taken place ten or twelve days after the patient's arrival in Hamilton, say then about the 15th October. Does Dr. Mackelcan allude to this in his letter? No; perfect silence on this subject is maintained. That letter, moreover, promised to "report to me any interesting features that might arise in Mr. F.'s case." In the course of another fortnight, on the 11th Nov., on his own showing, the detection of the alleged fracture of the sacrum was made. Was this a feature of interest or not? If it was not an interesting feature, it was not of importance. But that it was of importance, and therefore of interest, is proved by the fact of Dr. Mackelcan's stoutly maintaining the correctness of that opinion to *private friends* in Hamilton, a fortnight before Mr. F.'s decease, and even at the *post-mortem* examination, and his attempted justification of it now. I ask Dr. Mackelcan if, even in accordance with his promise, his duty to the "previous attendant" was faithfully and honourably fulfilled in this matter.

There are several matters of trifling moment introduced into the reply, which are unworthy of notice, in an especial manner; my desire is to confine myself, as much as possible, to the ethical bearings of the case.

How far now Dr. Mackelcan's conclusions, so satisfactory to himself, are, even on his own showing, borne out, the readers of this Journal are perfectly competent to form an opinion, and on their unbiassed judgment, I am content to rest the case. Dr. Mackelcan is wrong in supposing that I desired to injure his professional reputation in this matter. Dr. Mackelcan hazarded an opinion in opposition to that of four physicians in this city. He did so openly. The affair was one of his own seeking. Issue was joined upon the *post-mortem* examination, *the only test*. That examination has proved that Dr. Mackelcan was *wrong*, and, considering the whole case and its concomitants, *grossly wrong*. If Dr. Mackelcan chooses to sow thistles, he can hardly expect to gather figs.

Let not Dr. Mackelcan misunderstand me; I take no umbrage at his entertaining an opinion different from mine, or from that of others in given cases. To his opinions he has a perfect right; but he has *no* right to give utterance to them in ways which tend to the prejudice of those brother practitioners from whom he chooses to differ. *This is the ground of offence*. The conventionalities of professional intercourse prescribe certain rules in these cases, which control the physician the moment he enters the profession, and to which it is both his interest and his duty to conform. Were these obligations faithfully and honourably discharged, actions for

damages for malpractice, for which Dr. Mackelcan would appear to have some morbid relish, would be recognised as among the things that appertained to a cruder state of society; they are a blot upon the escutcheon of the science; and, in almost every instance arise out of the very practice which I have endeavoured to reprobate, and which has been done, Dr. Mackelcan may believe me, far less upon private, than upon public grounds.

I have only, in conclusion, to observe, that, sensible of the delicacy of my position as Editor of this Journal, the appearance of these remarks is consequent upon the opinions of a number of medical gentlemen in this city, whom I separately consulted as to the propriety of answering Dr. Mackelcan's letter at all.

A. HALL.

ART. XXXV.—EXTIRPATION OF A CANCEROUS BREAST UNDER THE INFLUENCE OF CHLOROFORM.

By J. CHAMBERLIN, Esq., M.D.

Notwithstanding that the use of chloroform as an anæsthetic agent has been sufficiently tested, to prove its wonderful effects in alleviating the sufferings of unfortunate patients under painful and difficult surgical operations—still, if you deem the following case of sufficient importance, you are at liberty to publish it.

Mrs. B., a widow lady, residing at St. Armand East, had, for several months, been suffering with an enlargement of the left *mamma*, which quickly assumed a schirrous state. Having placed herself under my care on the 6th instant, I decided to extirpate it. Accordingly, after previous preparatory treatment, I proceeded, on the 17th instant, assisted by Dr. Brigham, of Philipsburg, and Dr. Barnum, of Frelighsburg, to perform this operation, which, heretofore, would have been so painful to the unfortunate patient—first placing Mrs. B. under the influence of chloroform. After exhibiting it for a few minutes, she fell into the usual state of insensibility. I then commenced the operation by making a semi-circular incision, exposing the pectoral muscle, at the upper circumference of the gland, and meeting it by a corresponding incision around the inferior circumference. The whole mass was dissected out without the least appearance of suffering on the part of the patient. The entire operation (usually a tedious one), including the securing of the arteries, only occupied the space of five minutes.

By means of this extraordinary substance, I was for the first time enabled to perform an unpleasant operation without occasioning torture to the unhappy

sufferer, for which physician as well as patient have great reason to be thankful. In the present case, the lady, on waking from the stupor, complained of no pain, and appeared as easy as if roused from a refreshing sleep, inquiring, with surprise, if her breast had been actually removed. She has continued in a perfectly quiet state, and free from the usual irritation and disturbance of the system that almost invariably follows similar surgical operations. I may hereafter give the result of this case.

Frelighsburch, July 20, 1848.

ART. XXXVI.—ANGULAR DEFORMITY OF THE LEG AFTER FRACTURE.

By HAMNETT HILL, M. R. C. S. L., Bytown.

The following account of an operation recently performed for the purpose of remedying a case of very great angular deformity of the leg after fracture, will be doubly interesting, from the fact, that the party is the individual who was the plaintiff in the case, "*Kelly versus Van Corlandt*," which was so ably reported in a late number of your journal:—

I was called to attend James Kelly in June, 1847, having been informed he had a tree thrown across his leg some nine weeks previously, which had been broken about its middle; that the leg had been set by the surgeon who attended him, but that it was not yet knitted, nor was it at all straight. On visiting him, I found things pretty much as had been represented. There evidently had been a fracture of the tibia and fibula about the middle third of the leg; there was considerable attempt at union, but owing to the leg having latterly had too much liberty from one very short splint that I found applied thereto on the inner side of the tibia, very great angular deformity existed; and from its having laid in this position for some time, the deformity was to such an extent, that a line carried from the internal condyle of the femur, and striking the side of the calf, would leave an interval of about four inches and a half between the continuation of such line and the internal malleolus, which, in ordinary cases, it would strike; it appeared to have been originally a simple fracture, but at this period the angle formed by the ends of the bones nearly protruded through the integuments, or, at all events, the pressure of a straight solid splint was causing absorption of the soft parts, and was producing the same results. Notwithstanding the unfavourable position of the leg, partial union had taken place, and I endeavoured, but unsuccessfully, to remedy the deformity, by adjusting the limb and applying two long lateral splints that I considered more eligible for the purpose; but, although I applied steady pressure by tightening the bandages, it was impossible to straighten the deformity more than one inch, notwithstanding so much pressure was used as effectually to prevent sleep for two nights; and at this time, such was the tenacity of the integument and state of the man's health, from long confinement and bad supply of food, that I did not think it

justifiable to attempt a greater amount of force in breaking it asunder.

After six weeks the union was complete, and the man began to hobble about on crutches, but his progressive powers were limited to this kind of locomotion up to a few weeks back. I saw no more of him until about three months ago, when he had commenced the action above alluded to, and he talked of going to Montreal to see if any surgeon there would undertake to straighten his leg by breaking it again. I was of opinion that it would be useless: that a piece of bone of the shape of the letter V must be removed from it, and that after the action was over, I would undertake the operation, to which he most cheerfully assented. Accordingly, on the 17th May, I performed the following operation:—The patient having been extended on a long box, some chloroform was applied, by means of a hollow sponge, in the usual way—it speedily took effect, and in about three minutes insensibility was perfect. Having previously applied a tourniquet over the femoral artery, and the leg being firmly held by two assistants, I commenced the operation by making an incision with a scalpel, beginning at a distance of about half an inch behind the inner angle of the tibia, and about one inch above the spot where I destined to take out a piece of that bone, and continuing it downwards two inches and a half or so, in the same direction. Another incision was then carried from over the anterior angle of the tibia, to join the preceding one in its middle, thus forming the letter T; and the two flaps were dissected back, leaving a good sized triangular space of the fascia, &c., exposed for further operations. I next divided the fascia at the anterior angle of the tibia, and carefully separated the muscles from the bone down to the interosseous ligament, and effected the like purpose on the internal angle posteriorly to the same tissue; then a bluntish scalpel was pushed through the interosseous ligament, and, on its withdrawal, the handle of a silver spoon was inserted there to protect the vessels from injury from the saw which was now called into execution. I had entertained some fears of wounding the posterior tibial artery by sawing from the tibia towards the fibula, or from without inwards, so had prepared a carpenter's keyhole saw, which was introduced through the opening in the interosseous ligament, and then sawed from within the bones outward. In a short time the tibia was completely divided, and this part of the operation was repeated, carrying the saw in a sloping direction outwards, whereby a portion of the entire substance of the tibia was removed of a V shape, the apex having been in fellowship with the fibula, and the broader extremity to the opposite side of course. The excision of this piece of bone was not yet sufficient to allow the leg to be straightened, as it recoiled immediately; force was discontinued, owing to the firmness and elasticity of the fibula, which I had anticipated. The next step was therefore to divide this latter bone, which, however, was most deeply imbedded in muscle, from the foot being so much turned out, and, consequently, required so wide an incision to reach it, that very nearly were the two incisions on the outer and inner side of the limb continuous; I succeeded at length in sawing it half through, and

then, with a gentle jerk, snapped it off, and immediately had the satisfaction of seeing the leg most perfectly straightened.*

Thus far in the operation 22 minutes had been expended, during which time the chloroform was applied at very short intervals, and was continued, in all 43 minutes, the remainder of which was occupied in applying sutures, dressing the wounds, and fitting it up securely on Amesbury's Fracture Apparatus with lateral splints. I was fearful of discontinuing the use of the chloroform before all these operations were completed, lest he might become restive as the influence of the chloroform vanished, and send his nearly divided leg to the other end of the room; however, there was no excitement of this kind. He recovered from its effects just as a man awaking from quiet sleep, and said he had experienced no pain whatever. About a quart of blood was lost by the operation as the tourniquet was not tightened; no vessel of any size was wounded, not a ligature was applied; and in the after treatment, which consisted only in keeping him on the inclined plane for about eight weeks, there was not a bad symptom, with the exception of an attack of dysentery at the end of five weeks, which lasted him eight or ten days, during which time, of course, all further improvement was arrested in the process of union already begun; but now, at the end of the ninth week, the union of the bones is so far advanced, and the wounds so nearly healed, that he is commencing to hop about on crutches, and there is little doubt that after a time he will be able to walk almost as well as ever, as there is not much shortening, perhaps about three-eighths of an inch, and the limb is as straight as a line. The measurement of that piece of the tibia which is removed, would be accurately described by imagining an isosceles triangle, the base of which would be three quarters of an inch, and the apex the ordinary transverse diameter of the bone above its middle. I feel myself much indebted to my medical confrères for their assistance on this occasion, Dr. Horne, Staff Surgeon; Dr. A. Morson, and Dr. Newton of Quebec.

In reference to chloroform, within the last ten days I have again had occasion to avail myself of its truly wonderful effects in a case of amputation of the leg, in consequence of severe compound fracture. Its effects were equally satisfactory.

Bytown, July 17, 1848.

ART. XXXVII.—No. 1.—*The Medical Practitioners' and Students' Library. The Principles and Practice of Midwifery*: by JOHN TUCKER, M. D.,—Professor of the Principles and Practice of Medicine,—with numerous illustrations. Philadelphia, Lindsay & Blakiston, 1848. Small 8vo.; pp. 405.

It is a pleasure to us to witness the effort made by the publishers of the "Medical Practitioners' and Stu-

dents' Library" to advance the cause of medical science, by placing within the reach of practitioners and students, works upon the various important branches of their profession.

Two of their publications have reached us; and the first of the series is the work before us, treating upon the important subject of Midwifery.

The several physiological questions connected with this subject are concisely arranged, and detail the latest information on the several points. We more particularly allude to the subjects of menstruation, generation, utero-gestation, and the various questions connected with the ovum.

While expressing an opinion on the merits of the work, we desire to act impartially; and it is not through any feelings of hypercriticism, when we state that, in many places, the work exhibits evidence of hasty composition, both with reference to its style and matter. Thus the author, when describing the effects produced on the uterus by pregnancy, observes, that "the uterus will rise more rapidly in narrow pelves than when the excavation is contracted," (page 119). Among the modes of detecting pregnancy, the author alludes to *ballotement* in the following terms:—"This is a passive movement of the foetus, obtained by placing the hand on the hypogastrium, while the finger of the other, introduced into the vagina, must force up suddenly the presenting portion of the foetus which will be found resting on that portion of the uterus comprised between its cervix and the symphysis pubis. This movement is dependent on physical causes, so that when the impulse is suddenly and quickly given to the presenting portion of the foetus by the finger in the vagina, the movement is felt by the hand placed on the abdomen,"—(page 120). The author, here, reverses the mode in which this operation is usually performed, and converts a test of facility into one of comparative difficulty. In the author's remarks on the development of the uterus during pregnancy, on page 129, we quote the following inaccuracies.—"But not only does the bulk of the organ increase, but its size, as we shall presently see, changes greatly."—We presume the author means form or parietal thickening. Again, "the vaginal portion of the cervix is softer to the touch than in the unimpregnated state, when it is hard and cartilagenous." Instances of these inaccuracies and inelegancies of expression might be multiplied. We adduce them to prove that the work is not faultless. The practical department is not characterised by the same faults. Its descriptions are clear and concise, and the rules of practice and treatment judicious.

No. 2.—*Elements of General Pathology*: by ALFRED STILLE, M. D., Professor of Pathology and the Practice of Medicine, in the Philadelphia Medical Association. Philadelphia, Lindsey & Blakiston, 1848. Small 8vo.; pp. 483.

This valuable work is the second of the series, and we can confidently recommend it to our readers as one of the most complete and accurate works on the subject. The introductory chapter on "medical truth," is highly creditable to its author,

* The saw used on this occasion was a metacarpal saw. Hey's saw would answer much better for dividing the fibula as it will work in about one-third of the space required for another saw, and, consequently, the incision through the peronei muscles, &c., need not be of near the same extent. The reason for snapping off the fibula was to prevent the further destruction of the soft parts with the scalpel for more room for the saw.

and well calculated to encourage a more strict and logical method of reasoning on medical subjects. We are glad to find that American physicians are now occupied in bringing out original treatises, and not, as heretofore, expending their talents and time in republishing editions of British works, of which their own notes and observations, not unfrequently, constitute the only valuable portions. And we have much pleasure in acknowledging that the work of Dr. Stillé is, in our opinion, superior to any other on the same subject in the English language with which we are familiar.

The two publications which we have noticed, do great credit to the publishers. Their typographical execution is exceedingly neat, and the paper excellent.

ART. XXXVIII.—*Lectures on Yellow Fever, its Causes, Pathology, and Treatment*; by J. HASTINGS, M.D., *United States Navy*, Philadelphia, 1848, pp. 69.

After seeing and treating a great many cases of yellow fever, Dr. Hastings has published an animated and excellent account of this important malady. His descriptions, like all those drawn from nature, have that freshness which is sometimes wanting in the works of systematic authors, who may not have had opportunities of seeing the disease. He considers that the fever arises only from malaria—from alluvial marshy ground alternately being overflowed and being left uncovered by water—that it is not infectious; that it is a fever allied to intermittent and remittent fevers; that one is liable to second, third, and more attacks of it; that black vomit is blood that has oozed from the mucous membrane of the stomach, and been acted on by the muriatic acid in the stomach.

Its *Symptoms* are rigor, fever, injected eyes, pain in the head, back, and legs, a tender epigastrium, vomiting, and black vomiting.

Its *Morbid Anatomy* is thickening and hardening of the membranes of the brain and spinal marrow, firmness and discoloration of the liver, and thickening and sphacelus of the mucous membrane of the stomach.

Its *Treatment* is bleeding, purgation, ptyalism, and blisters over the stomach and liver; these to be dressed with mercurial ointment, creasote and morphia in certain cases for the vomiting. The above is the first part of the treatment, but the second is as important, and requires more skill and discrimination; and this is to leave off the reducing plan, and to adopt the supporting and stimulating method, and to be careful that too active treatment and over-medication, do not overwhelm the *vis medicatrix nature*.

We have not observed any allusion to the saline treatment, nor to the use of quinine, although its assumed malarial origin points to the latter medicine.

Dr. H. notices the opinions of Fergusson, Lind, Wilson, and others. We consider his criticism on Dr. Wilson to be erroneous; for certainly, if decaying wood, in a marsh, be allowed to be a cause of fever, it must be the same in a ship. A large ship in a tropical climate, with many of its timbers, &c., in a state of decay, and those at the bottom of the hold always covered with a varying quantity of bilge-water, becomes

perfectly qualified to cause fever among those on board.

We heartily recommend Dr. Hastings' brief but able Essay to the notice of all naval, military, or civil surgeons, whose lines may be cast within the limits of the yellow band.

ART. XXXIX.—*A Dispensatory and Therapeutical Remembrancer, comprising the entire Lists of Materia Medica, preparations and compounds, with a full and distinct version of every practical formula, as authorised by the London, Edinburgh and Dublin College of Physicians, in the latest Editions of their several Pharmacopias, &c.*: by JOHN MAYNE, M. D., L. R. C. S., Edinburgh. Revised with the addition of the *Formulae of the United States Pharmacopiea, &c.*: by R. EGLESFELD GRIFFITH, M.D., Philadelphia. Lea & Blanchard, 1848. Small 8vo; pages 324.

The object which the author had in the work before us, may be gleaned from the preface to it, viz., to make "an abridged practical formulary of the three British Pharmacopias; and this in addition to a full amount of collective information as to the uses, &c., of the medicines, and other important points relating to remedial means and appliances. Another feature of originality, which, it is expected, will prove highly serviceable, is the introduction, wherever deemed requisite, of extemporaneous formulae into the work, intended to assist the practitioner's memory, by suggestions of forms and combinations most suitable for the medicinal substances to which they are annexed." The addition of the official articles and processes of the United States Pharmacopæia, by the American editor, completes the publication. The plan is based upon the therapeutical action of the various articles of the *Materia Medica*, thus facilitating a reference to Medicines productive of similar action, while under the different heads they are all arranged alphabetically. Dr. Griffith has, in our opinion, effected a decided improvement upon the original, and to practitioners in this country, as well as to those in the United States, it presents claims to especial consideration, as being an excellent epitome of the four Anglo-Saxon Pharmacopias.

ART. XL.—*The Young Stethoscopist; or, The Student's Aid to Auscultation*: by HENRY J. BOWEN, M. D., one of the Physicians of the Massachusetts General Hospital. Second edition. New York, Samuel S. & William Wood, 1848. Small 8vo.; pages, 303.

As far as it goes, this treatise is accurate, and will assist the student; but we are of opinion, that if auscultation be of value in diagnosis, it is worth the trouble of becoming fully intimate and familiar with its principles and difficulties, and on this account we do not think very highly of the above treatise, as we do not consider it capable of communicating any but the most superficial knowledge on the subject. It cannot bear comparison with the treatises of Walshe, Cowen, Raciborski, Barth and Roge, André, or Hughes; and as these works are deservedly popular, and, moreover, cheap, we do not think there was much necessity for the appearance of the "Young Stethoscopist;" but as

the work has reached a second edition, it would appear to have become a favorite with the class of readers for whom it was intended.

ART. XLI.—*On the Blood and Urine*: by JOHN WILLIAM GRIFFITH, M. D., F. L. S., &c.; G. OWEN REESE, M. D., F. R. S. & F. G. S., &c.; and ALFRED MARKWICK, M. D., &c., in one volume. Philadelphia, Lea & Blanchard, 1848. Small 8vo.

In the above manual, the reader is furnished with a reprint of three of the best works in the English language, on the subjects of which they treat, viz.: "Griffith on the Urine and Blood," "Reese on Blood and Urine in Health and Disease," and "Markwick on the Urine in Health and Disease." These several works have been highly esteemed, and in the manual before us, the American publishers have given a reprint of the latest editions of each.

To those practitioners who are anxious to know what chemistry and the microscope have done for medical science, or who are desirous to acquire a knowledge of these two powerful aids to diagnosis and treatment, we strongly recommend this manual. Like most American reprints, it contains numerous typographical errors; but we must overlook this, when we recollect that we have three treatises neatly bound together, and well printed on good paper, for less than the English copy of any one of them would cost.

PRACTICE OF MEDICINE AND PATHOLOGY.

On a Case of Death caused by the Inhalation of Chloroform; by M. GORRE, Surgeon-in-Chief to the Hospital of Boulogne; Corresponding Member of the Academy of Medicine, Paris: before the Academy of Medicine, July 4, 1848.—Mille. Stock, a person 30 years of age, well formed, enjoyed habitually good health. I ought to state, however, that she had consulted me some months previously for palpitation, which appeared to me to depend on a chlorotic state, and on which preparations of iron had the happiest effect. Her health since then had experienced no change.

Some weeks since she was thrown out of a carriage, and besides some contusions, the result of the fall, she was wounded in the thigh by a splinter of wood, which made its way beneath the skin, without leaving any trace besides a very small laceration, and the presence of which was not then recognized. Her medical attendant applied some leeches over this point. Fluctuation being soon manifest, he proposed an incision, but the patient refused. Some days afterwards pus escaped in some quantity through a spontaneous opening, and as the suppuration did not cease, I was called to the case. I easily made her understand that a free incision was necessary for her complete recovery. She now consented, but on condition that I should put her under the influence of chloroform. I had no reason to refuse her request. I went next day with some chloroform, the good quality of which cannot be doubted, as it was supplied from the Chemical Laboratory of Quesneville.

I found my young patient in her usual good spirits, free from all fear; her usual medical attendant was present, and a midwife, to render assistance. Everything being ready for the operation, in itself very insignificant, I placed over the nostrils of the patient a handkerchief moistened with from fifteen to twenty drops of chloroform.

Scarcely had she taken several inspirations, when she put her hand on the handkerchief to withdraw it, and cried

with a plaintive voice, "I choke!" Immediately the face became pale; the countenance changed; the breathing embarrassed; and she foamed at the mouth. At the same instant (and that certainly less than a minute after the beginning of the inhalation) the handkerchief moistened with chloroform was withdrawn. But, persuaded that the bad symptoms were only evanescent, and that it would suffice for the effect to cease to have suppressed the cause, I hastened to pass a director into the small fistulous wound in the thigh, and to lay open the abscess in its whole extent—that is to say, between two and three inches—and I withdrew from the bottom of the wound a small, thin, and pointed splinter of wood. During the infinitely short time occupied by this little operation, my colleague sought by every means to remedy the threatening annihilation of life. I joined him, and both of us put into force, with activity, the measures most likely to prevent a fatal issue.

Frictions upon the temples and the precordial region, throwing cold water on the face, tickling the fauces with a feather, blowing air into the air passages, ammonia to the nostrils, everything that it was possible to do in such a case was tried by my colleague and myself, during more than two hours. We were willing to believe that there was only a suspension, not an abolition of the sensorial functions. It seemed impossible that the inhalation of so minute a quantity of the anæsthetic agent during so short a time, (not, indeed, calculated by the watch, but certainly not more than a minute) had been sufficient to extinguish life. Our efforts were vain!

This death, though we clung to the belief that it was but apparent, was real; and it had been so prompt, that already it was without doubt complete at the moment when I made the incision. I can only give a just idea of the lightning-like rapidity with which it was produced, by saying that it recalled to me most accurately, death from the accidental introduction of air into the veins. The details of the very minute examination give value to this analogy, the idea of which struck me when observing the symptomatic expression of the last moments of life.

Autopsy, 24 hours after death.—Exterior aspect. The right side of the face presents several large eschars, the skin being as it were parchment-like; these eschars are due to the ammoniacal frictions made to recall life. Complete rigidity of the limbs; cornea dull; abdomen distended with gas; a blood-stained bandage covers a wound at the internal superior part of the right thigh.

Head.—Scarcely any blood flows from the cutaneous incision. The superior longitudinal sinus is empty; the veins on the convex surface of the brain are not engorged, but they present this remarkable peculiarity, that the column of blood is broken every here and there by bubbles of gas. These veins when punctured, collapse, owing to the escape of the gas. There is also air in the veins at the base of the skull. Numerous bulks of air escaped with the blood from the ophthalmic veins, the cavernous sinuses, and the inferior cerebral veins. The lateral ventricles contain a moderate quantity of serum. The substance of the brain is firm; no drops of blood escape on cutting into it.

The air escapes, bubbling up in the midst of a remarkably black and very fluid blood, from the internal saphena and the left crural veins. The crural artery is entirely empty.

The right thigh presents, on the inner side of it, in the upper part and somewhat backwards, a wound made in opening an abscess. This wound, made through the skin and cellular tissue, is stained with black blood; the vena saphena is at a distance from the incision, and could not have been touched by the bistoury. The universal presence of air in the circulatory system called for a careful examination of the blood-vessels near the wound: dissected with the greatest care, they are found to be perfectly entire.

Chest.—The lungs, especially the left, are voluminous.

and visibly engorged in the lower lobes. When cut into a large quantity of very black fluid blood escapes. Remarkable crepitation; pulmonary vesicles dilated by the air blown in during the last moments of life, with a view to re-animate the patient, supposed to be in a state of asphyxia. Neither interlobular nor subpleural emphysema; the tracheal mucous membrane is of a bright red; complete absence of froth in the bronchi; some amount of serum in the pleura and pericardium; heart excessively flaccid, of the usual size; right and left cavities absolutely empty. Not the smallest clot either in the auricle or between the fleshy columns of the ventricles; frothy blood in the orifice of the ascending aorta. The pulmonary veins, opened near the auricle, allow a little blood to escape, mixed with air. The internal membrane of the heart, especially of the right cavities, is red. Its tissue is pale, and tears easily.

Abdomen.—Liver very voluminous, its colour like the lees of wine; on cutting into it, air bubbles out of the vessels along with much black and fluid blood; the intestines are distended by fœtid gas. The spleen is softened, and is gorged with blood; on pressure, several bubbles of air escape from its substance.

In closing the account of this autopsy, I have particularly to notice, that the blood was blacker than it is in simple asphyxia. It was literally as black as ink. The above post-mortem appearances lead me to the following conclusions, which I submit to the consideration of the academy:

Mlle. Stock did not, properly so to speak, die from asphyxia. According to all probability, her death was due to syncope, caused by the sudden suspension of the cerebral functions under the influence of chloroform.

The presence of air in the venous system cannot be explained by the introduction of air into a vein imprudently opened when the incision was made in the thigh. The incision being altogether superficial and cutaneous, could not reach a vein of large size.

Nor yet was it the artificial respiration which caused the air to find its way into the circulation through the rupture of the pulmonary cells; for at the moment when the artificial respiration was resorted to, life was extinguished, if it had not been already abolished, and the action of the left side of the heart had ceased.

Thus, by shutting out other causes, one must admit, as the most probable view, the spontaneous formation of air in the veins. Was this fluid produced during life, or after death?

Morgagni relates cases of sudden death, in which the autopsy revealed a large accumulation of air in the heart and great vessels, without any possible external origin. In these cases decomposition had not commenced, and no organic change accounted for the death. M. Ollivier (d'Angers) has related analogous examples, which led him to admit the possibility of the disengagement of a gaseous fluid during life, which kills after the same manner and with the same rapidity as if air had penetrated accidentally through the opening of a venous trunk contiguous to the heart.

I am consequently induced to think that the above case must be added to those singular cases of pneumatosis related by Mery, Littré, Morgagni, and, among ourselves, M. Ollivier (d'Angers). In this case, it appears to me, that the rapidity of the death is due to a complication of causes—namely, first, to the special deleterious influence of the chloroform upon the brain, which led, as the immediate consequence, to the abolition of the sensorial functions; and secondly, to the spontaneous development of gaseous fluid in the circulatory system, the probable result of the hitherto unexplained action of the ethers upon the blood, under the circumstances related.

Whatever may be the value of this explanation, one thing is certain, resulting from the case just related, and from that reported in the *Lancet*, that the chloroform, in certain kinds

of constitution, which it is absolutely impossible for the man of science to recognise, may cause death with a lightning-like rapidity. Even in experienced hands, there is no certain safeguard against the unfortunate consequences of this agent, which only too well justify the words applied by M. Flourens to chloroform, “*a marvellous and terrible agent.*” Finally, the dangers indicated by M. Bouisson of Montpellier, and Sedillot of Strasburg, are but too real, and in face of the dangers now so thoroughly realised, it would be the highest imprudence still to employ chloroform, as has been done hitherto, for insignificant operations—such as the drawing of teeth, opening an abscess, and the application of a moxa. In future, chloroform should only be exhibited for great operations. In fact, important advantages only can compensate for the risk incurred by the patient—a risk necessarily incurred even in acting with extreme circumspection.

M. VELPEAU.—There are two things to be considered in relation to the case just related—the case itself, and the consequences to be derived from it. The case is singular, isolated, and so much the more extraordinary, that instead of 15 or 20 drops of chloroform being placed over the nostrils of patients previously to operation, there is usually as much as from 2 to 3 drachms. And yet no accident of importance occurs. Remark, that such instances may now be related by thousands. No operation is performed in the hospitals without the employment of chloroform, and yet the surgeon would reject this agent; although, indeed he could not, for the patients themselves would insist upon its use. The chloroform is, I say, free from danger, except perhaps where its use is too much prolonged, and even in such cases the means used to recall the patients to themselves must go for something.

I am not, then, convinced that the death of this case can be altogether attributed to the chloroform. M. Gorré ascribes it to syncope. He speaks also of the introduction of air into the veins: I own that this appears to me very improbable; on one account, because no vein of importance was wounded, and on another, because the operation was performed on the thigh—very far, consequently, from the centre of the circulation. On the inspection there was found, he says, a great quantity of air in the vessels. That is not astonishing: the inspection was not made until twenty-four hours after death, and in the month of May, in warm weather. Perhaps there has been a coincidence, unfortunate without doubt; but yet all surgeons know that there is no operation, however trifling, but it may occasionally cause death. I prefer this explanation to that of M. Gorré; otherwise, we must absolutely renounce the use of chloroform in all surgical operations, great or small.

M. MOREAU.—I am not so certain as M. Velpeau of the perfect safety of chloroform. Here is a case to place beside that related by M. Gorré. I learn from M. Robert, surgeon of the Hospital Beaujon, that after the employment of chloroform, he was about to take the knife to cut off the thigh, when his patient suddenly died. I have to add that the case shall be communicated to the academy in all its details.

M. HONORÉ.—Sudden deaths at the moment of operation have been spoken of: here is an instance, of which I was witness. About a year since I saw a patient who suffered from very severe pain in the bladder. This man was excessively excitable, and of a remarkable susceptibility. M. Civiale was called in; he sounded him, and discovered a calculus; but he showed such excessive excitement that M. Civiale refused to operate. Sometime afterwards the pain returned; M. Civiale was called on to operate; he introduced the catheter, and the patient died suddenly.

M. ROUX.—I would first reply to M. Moreau, that before we can reason on the case he has related—before accusing chloroform, we must wait for the communication of M.

Robert. At present I address myself to the case of M. Gorré, although M. Velpeau has in great part said what I meant to say; for it appears that we have both received the same impressions from this recital. And first, I declare that if it can be proved that chloroform can, either at the time or afterwards, directly or indirectly, compromise the life of the patient, it would be necessary to renounce its use without hesitation, not only in small, but also, and still more, in great operations; for it cannot be permitted to the surgeon to add to the danger of an operation the danger of additional steps. But I own that I partake with M. Velpeau the doubts expressed by him as to the cause of death assigned by M. Gorré; and I repeat, that so many operations have been performed under the influence of chloroform, and these operations have been so happy in their results, that it would be imprudent to condemn a means so precious for a misfortune which it possibly did not occasion. I question whether the manner in which M. Gorré administers the chloroform is free from objection: he impregnates with it a handkerchief or a sponge, which he applies under the nose. In this manner the patient inspires the chloroform vapour without air, while, when inhalers are employed, the vapour of chloroform is always diluted with air. On the other hand, I ask if the external air has not penetrated into the veins, not indeed by the veins of the thigh—they are too far from the heart—but by the pulmonary veins, which might be ruptured in the efforts of respiration. That the air penetrates thus was a conjecture of Morgagni's adopted by Bichat. Once, a very long time since, I opened a body with Bichat; on opening the cranium we were struck with the quantity of air spread through the sinuses and veins. We inquired into the employment of this man, and we learned that he was a shoemaker, and that he died suddenly while making a strong effort. Bichat supposed that during this effort the air was introduced into the venous system. Why might it not be thus with the patient of M. Gorré?

M. BAILLARGER.—I do not pretend to give an explanation of the unfortunate case communicated to the academy by M. Gorré, but in relation to the dangers of chloroform, I think it right to remind you of its influence on epileptics. We know, from the trials made at the Bicêtre by M. Moreau, that the inhalation of chloroform not only excites epileptic fits, but that the fits have then an extreme degree of gravity. A military surgeon has taken advantage of this special action to recognise the reality of epilepsy among the conscripts who have asserted themselves to be subject to that disease. It is, then, prudent to forbid the use of chloroform in persons afflicted with convulsive affections, and this is a precaution that surgeons ought not to neglect to take. In this case the patient had no convulsions, but foam was observed on the mouth. Has the chloroform excited here one of those epileptic paroxysms that put on the form of syncope, and in which there are no convulsions? On this point we can only throw out conjectures, but these conjectures would merit serious consideration, if the lady, aged thirty years, who has died so suddenly, had previously had any convulsive ailments—a point which has not been mentioned in M. Gorré's communication to the academy.

M. BUSSY asked if the quality of the chloroform had nothing to do with the death of the case communicated by M. Gorré. This is worth verifying; and it would be well to write to M. Gorré to send a small quantity, that it may be tried on animals.

M. VELPEAU answered that the chloroform used by M. Gorré came from the laboratory of M. Quesneville, and everything would lead us to believe that it was very well prepared.

M. GIBERT.—I wish to make two remarks, one on the probable cause of death in this case, and another on the practical and usual employment of chloroform.

The explanation of the death by syncope, adopted by the

author, appears to me inadmissible. All the details of the case seem to establish that the sudden death has been caused by the introduction of air into the veins, due probably to a rupture of the pulmonary vascular tissue, as in the case cited by M. Roux. Syncope, they say, has only negative characters; I believe, from some facts that I have observed carefully, that there are cases in which syncope may be characterised in the dead body by the absence of blood in the right cavities of the heart and in the great venous trunks; this is contrary to what one generally sees in the dead body, and it is explained, without doubt, by the sudden suspension of the left side of the heart.

For the usual employment of chloroform, I declare that, while I defer to the high surgical experience of M. Roux, I persist in believing that the best mode of administering it is also the simplest and easiest,—that which every one has at hand, and which good common sense points out,—that is to say, the use of a handkerchief impregnated with chloroform, and which it is not necessary, as M. Roux conceives, to apply exactly over the nostrils in such a manner as to hinder the mixture of air with the vapours of chloroform.

The inhalers employed either for the administration of ether or chloroform are more or less inconvenient and annoying, and it is to them, whether from the difficulty of breathing through the inhalers, or the moral effect produced by them on some individuals, that we must attribute various disagreeable results in different individuals, and the difficulty of exciting in them the ordinary effects of the anæsthetic agents.

M. PLOURY.—Three things have been spoken of—

1st. The introduction of air into the veins. It results from published experiments made by me long since on rabbits, that the inflation of the lungs of rabbits with air sometimes causes sudden death,—not because of pulmonary emphysema, but from the penetration of air into the veins. We find, in fact, the elastic fluid in numerous bubbles in the heart and great vessels; it is then probable, but only probable, that in the adult a strong inspiration, followed by a forced and difficult expiration, may result in the penetration of air into the veins, and death.

2d. I have not studied the action of chloroform on the hysterical and epileptic, but this I can say, that the inhalation of ether, tried by myself when it was first introduced into practice in France with a view to meet and prevent the paroxysms of hysteria, gave rise to terrible effects, particularly in one female; and in spite of some partial success, I have not dared to have recourse to it anew.

3d. As to syncope: it would at first be well to know what is meant by that word. Many organopathic states are so named: there are some in which there is no blood in the heart, as in death from hæmorrhage; there are cases in which the blood is abundant in all the cavities of the heart, while it is deficient in the brain;—in fine, it may be that in certain cases there is no blood in the right, while there is blood in the left cavities; but this is an observation which I have not verified by experiments on animals, which are here of great importance.

M. Amussat remarked that he has demonstrated that sulphuric ether and chloroform act both of them in the same manner: they cause the death of animals by asphyxia. With regard to the modes of administration, the most simple are most dangerous. In every case he finds it necessary to act with great caution. When the operation is long, he suspends from time to time the inhalation of chloroform; and with this single precaution he has never seen a fatal case; but he is always alarmed when the patient does not promptly recover consciousness. As to the entrance of air into the veins through a wound of the thigh, there is no example of such an occurrence.

M. Castel corrected an inaccuracy in language. Death

is not caused by syncope, but by the cause which produces the syncope.

M. Rayer-Collard, President, asked leave to make a remark on the case the subject of the discussion. They have spoken, said he, of the patient from whom Dupuytren removed a large tumor seated between the shoulders, and who died suddenly under the knife. This circumstance has never been related as it occurred. I know, for I was present when it occurred. They say that Dupuytren heard a noise, a hissing, caused by the penetration of air into the vessels; and they have put into his mouth words which he never uttered. Dupuytren did not know to what to attribute the sudden death: he spoke at first of the exhaustion of sensibility; it was not until the next day, after having observed the heart and great vessels, that he suspected the introduction of air.

M. Duval.—They have spoken, he said, of syncope; I have been several times witness of this morbid state; I have seen swoons that have lasted several minutes. Among all the means for bringing the patient out of this state there is one but little known, and which I have several times found efficacious, frictions with the essence of mint upon the gums (!)—*L'Union Méd.*

(To be Continued.)

Paralysis of the Tongue from Passion.—The following case is related in the *Medicinishe Zeitung*. A man, aged 59, of delicate constitution, and choleric temperament, while engaged in a dispute, suddenly lost the power of his speech, his intellectual faculties, however, remaining. He was unable from this time to move his tongue freely, or to utter and articulate sound. Respiration, the heart's action, the digestive and urinary functions, were normal. No symptoms of congestion of the brain were to be observed. His physician had recourse to electricity, which was continued daily for from five to ten minutes. In the course of five days the faculty of speech was restored.—*Journal of Psychological Medicine*, No. 2.

Chloroform in Chorea.—Mr. Harris, of Rotesdale, relates the following instance of the beneficial effects of chloroform in this disease:—

The patient was a female in her seventeenth year. The immediate cause which gave rise to her complaint was fright, the system being, doubtless, predisposed to its influence, owing to a chlorotic state of constitution. The ordinary remedies—purgatives, either simply or in combination with one or other of the mineral tonics—constituted the general treatment for the first ten days of his attendance. The symptoms gave, however, no perceptible evidence of any improvement; the involuntary muscular movements, of the extremities especially, as well as those of the face, (causing the countenance to be at times hideously distorted,) continued rather to increase than otherwise, which, together with a constant state of watchfulness by night and day, (in spite of opiates,) contributed not a little to her exhaustion and suffering.

The chloroform was used every day for a week, preserving its influence with her on each occasion for about half an hour, when the muscular movements became almost magically arrested, and a calm sleep was induced. Upon recovering from its influence, the muscles again resumed their state of excitement, although with decided and perceptible mitigation as to the power and severity of action. The nights, which before were watchful, became now, and without the aid of opiates, devoted to sleep and quietude. Believing that these beneficial results might be fairly attributed, if not wholly, at least in part, to the chloroform, Mr. Harris continued its employment for another week, twice daily, extending its influence to an hour each time, and on a

few occasions to an hour and a half. It ought to be stated that the medicines were, throughout, regularly persisted in, and doubtless might have tended considerably to share in effecting the amelioration, which by this time the symptoms of the disease had undergone. The chloroform had been used rather more than a fortnight; the medicines were continued a few days longer, when the patient became perfectly convalescent.—*Lancet*, June 3rd.

SURGERY.

On the Medical and General Treatment of Local Diseases, in preference to the Treatment by Operation. By THOMAS HUNT, Herne Bay. In the earlier days of surgery, the dread of "the knife" on the part of the patient, and the timidity of the surgeon—at that period only half an anatomist—presented a more than sufficient check to the undue practice of operative surgery; and if the improved anatomy of modern times has removed one objection, the pain attending the severer operations has, till recently, presented another obstacle to their too frequent performance. That obstacle, however, appears likely to vanish under the very general use of anæsthetic agents, and there now remains no objection to operative surgery, apart from those considerations which regulate all medical treatment,—viz., its disadvantages and dangers, as contrasted with its advantages or necessity. There are indeed many operations, the propriety of which can only be determined by the last-named question,—viz., their urgent necessity. Some of these may be highly dangerous, extensively mutilating, or even doubtful in their results; yet if they prove the only alternative between life and death, their performance, at some risk, may be justifiable. Other operations may be advantageous and eligible, though not absolutely necessary to life, or even to the recovery of the patient. All these questions are, by the common consent of the profession, referred to what are called the established "principles of surgery." Many of these principles, and much of the practice of modern surgery, together with the views of the nature and treatment of local disease, which prevail in our hospitals and in infirmaries, are of recent origin. A large proportion of them are regarded as among the improvements of the present century; and as many of the views of the eighteenth century have been exploded in the nineteenth, those of the present day may be destined to yield to the rapid advance of science, and to be exploded in their turn. The principles of surgery are still, therefore, entitled to veneration, only so long as they can be shown to be founded on the most advanced discoveries of medical science; and as medical science is still in its infancy, (seeing we have yet to learn the nature and phenomena of inflammation, the rudiments both of disease and of recovery), a calm and practical inquiry into the necessity and propriety of certain operations of daily occurrence, can never be deemed unseasonable or preposterous.

The object of the writer of these remarks is to promote such an inquiry among the members of the association. The facts which he proposes to bring forward will not be adduced in order to support sweeping assertions or dogmatic inferences on his own part; they are rather intended to elicit from the members other facts, either of a similar or contrary tendency, and to invite discussion on a subject which has as yet been treated with too much tenderness and reserve. It is much to be regretted that those members of the profession in whose hand the operative department is chiefly placed, are not as yet required by law to possess a knowledge of those higher principles of our art on which chiefly the propriety of operations must be decided—viz., the powers and limits of medical treatment. That many of the "pure" surgeons of the day, as they are called, are well acquainted with pharmacy, medicine, and general therapeutics, is rather a happy accident than a matter of course; yet with these, medicine, often despised, is always regarded as a minor object of study. The physician is seldom called upon to apply the resources of his art to the treatment of local diseases affecting the external organs of the body; and if the general practitioner is required to be instructed in both these departments, it may be said that surgeons are too generally entrusted by the public to determine the propriety of severe operations in the inverse proportion to their legal qualifications for so important a function. The result which might be

expected from this arrangement is—*rashness in operating*. Whether this result has been realised to any serious extent, is a question of momentous import,—a question which must sooner or later undergo a professional scrutiny of a severe and searching character.

The subjects to which this inquiry is applicable are as numerous as they are important, and they are dispersed over the entire surface of surgical science, and in their selection for discussion, regard will be directed to their magnitude, in relation to the preservation of life, rather than to the difficulty of their performance.

Strangulated Hernia.—The efficiency of a skilful and persevering employment of the taxis, in preference to the division of the stricture by the knife, has already been partially discussed in the pages of the *Provincial Journal*. No less than four correspondents (none of them novices in surgery), have by their united testimony made a very strong case against the frequent performance of the operation; it has been demonstrated, as far as demonstration is applicable, that by the taxis alone, conducted on principles based on anatomy and physiology, and continued for a much longer period than is advised in any standard work of surgery, a strangulated hernia may be reduced long after the occurrence of symptoms which, in the opinion of the best authorities, would not only indicate the urgent necessity for a division of the stricture, but would interdict all further manipulation of the tumour as a mischievous and hopeless expedient,—as a wanton trifling with the patient's life. And not only has the plan succeeded once, by a lucky chance, but in the hands of all the four correspondents, above alluded to, it has never once failed. As yet no writer in the journal has ventured to impugn the practice, or to say one word in the justification of the prevailing plan of operating in every case presenting trifling difficulties in reduction. The question should not, cannot rest here. The operation for hernia is full of dangers. Simple and easy in its performance, it too frequently fails to save the patient's life to justify its hasty or indiscriminate adoption. On the other hand, the gentle and patient employment of the taxis is attended by no danger whatever; the force applied to the tumour is regulated by the principle of hydrostatic pressure, and is no more likely to bruise or inflame the contents of the tumour, than pressure upon the projecting membranes of the parturient uterus is liable to bruise the fetal scalp, surrounded as it is by the protecting liquor amnii. It is, indeed, rare that the pain of a strangulated hernia becomes sensibly increased by a discreet application of pressure to the tumour, even if inflammation has already taken place. All inflamed surfaces are relieved by the steady application of equally diffused pressure. The unduly dilated blood-vessels are supported and sustained, the venous circulation is promoted, and the increased action of the arterial capillaries is checked and confined to definite limits. The fluid contents of a hernia are admirably adapted to regulate and diffuse the pressure from without. Every part of the tumour must receive an equal impulse from any degree of pressure which tends to contract its bulk, and so long as the circulation is going on in the solid portions of the tumour, pressure from without *must take effect upon the veins*, reducing their bulk, and at the same time checking the force of the entrance of blood by the arteries. The wonder is, not that the taxis should succeed occasionally in cases condemned to be operated upon, but that it should ever fail to reduce a recently-protruded hernia.—*Provincial Journal*.

Diagnosis between Syphilitic and Scrofulous Affections of Bone.—This is laid down as follows by Ricord:—

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| Syphilitic Affections of Bone. | Scrofulous Affections of Bone. |
| 1. Very rare with young subjects. | 1. Very frequent in youth. |
| 2. Syphilitic antecedents. | 2. Scrofulous antecedents. |
| 3. Compact texture of the bone attacked. | 3. Spongy tissue of bone attacked. |
| 4. Superficial layers attacked. | 4. Deeper layers attacked. |
| 5. Little tendency to hyperostosis. | 5. Much tendency to hyperostosis. |
| 6. The pains which precede the development of the affection, increase and become very intense, until they decrease again. | 6. The tumefaction precedes the pain, but the latter soon increases, and becomes more intense as the disease proceeds. |

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| 7. A tendency to circumscription. | 7. A tendency to diffusion. |
| 8. Exostosis. | 8. Hyperostosis. |
| 9. Ossification, elutriation, but seldom suppuration. | 9. Tendency to softening, suppuration, cavies, and necrosis. |
| 10. Rapid cure under appropriate treatment. | 10. Billant cure, and sometimes impossible. |

—*Lancet*, June 19.

MISCELLANEOUS.

GENERAL AND MEDICAL INTELLIGENCE.

Refusal of a Physician to give Evidence on the Plea of *Beneficial Confidence*.—Dr. Viriello attended a Mr. B. for a venereal affection. He afterwards attended his wife, to whom he (the husband) imparted the disease. The wife prosecuted for a divorce, and demanded in court a disclosure from Dr. V., to which he refused to accede. Dr. V. was fined in the Lower Courts, in costs, and he has appealed to the Court Royale of Poitiers, which will probably reverse the judgment, as, in 1828, they gave a verdict in favour of secrecy under certain circumstances; see *Lancet*, May 12, 1848.—The *Dublin Quarterly Journal of Medical Science* recommends a new kind of restraining apparatus for insane persons likely to injure themselves or others: a stout leather sleeve, to extend to below the elbow, thus preventing flexion of the joint. The idea is good, and we recommend our insane friends (we mean our friends who have charge of the insane) to try it.—**Orchidotomy.**—Dr. Clay, of Manchester, states that he has performed orchidotomy on 28 patients, 18 of whom recovered.—In Boston there are 257 physicians, 8 female practitioners registered in the Directory, and 18 Thompsonians and quacks. Boston must prove a lucrative market for the sale of Lobelia and Cayenne.—It is said that the Grand Sultan of Turkey has ordered a cask of chloroform for the use of the seraglio.—**Lancet.**—An attempt was made lately at South Hampton, N. H., to convict Dr. G. B. Gale of a criminal assault on a Mrs. D., whom he had attended in labour. The alleged assault was made more than a year ago. The husband and wife had become thoroughly impressed with the gross indelicacy of having male accoucheurs, in consequence of reading certain books advocating the impropriety of employing male accoucheurs in midwifery cases; they brought a complaint for the purpose of exhibiting their abhorrence of it, and to prevent a repetition. The action was dismissed.—**Condensed from Boston Journal**, July 26, 1848.—There are 70 dentists practising in Boston.—Dr. T. R. Beck, of Albany, so favorably known to the profession for his researches in Medical Jurisprudence, after having had charge of an Academy as Principal for 31 years, retires from that post, and is to commence the preparation of a new edition of his work on the Elements of Medical Jurisprudence. If our smallest wishes for his welfare, and perfect success in his undertaking, can avail him, he has them.—A female Mexican dwarf, 25 years old, measuring 25 inches in height, and weighting only 18 lbs., is living at Matamoras. She is the 19th child of her parents.—Dr. Hamilton has resigned the chair of Surgery at Geneva College, N. Y.—A Hindoo named Poojooconar-Goodere-Chuchorinty, of Calcutta, lately graduated at the University of London. He was one of four sent by the Bengal Council of Education to study Medicine in England.—A State Lunatic Asylum is about to be erected at Harrisburg, Penn.—A bill prohibiting the importation of adulterated drugs, has lately passed Congress.—Dr. Watt, the statistic of Glasgow, died lately very poor.—The Foundling Hospital of Paris, is now the *Aigle des Enfants de la Patrie*.—Dr. Stapleton, surgeon to Jarvis Street Hospital, employs for the preparation of pathological specimens, a mixture of half a drachm of nitre to a quart of saturated solution of alum. The recent preparation becomes discoloured soon after immersion, but in the course of a few days the color returns. Specimens of brain shewing apoplectic clot, apoplexy of the lung, &c., has been beautifully preserved.—**The New Foot Operation.**—A novel operation, consisting of the removal of the os calcis and astragalus from their articulations, was performed by Mr. Wakley, assisted by Mr. Erasmus Wilson and Mr. Gay, at the Royal Free Hospital, Greville street. The patient was a man of delicate and scrofulous habit, and much debilitated by previous suffering. He had been for some time an

inmate of the Brighton Hospital, and the bones of the foot being found extensively diseased, amputation was recommended by the medical officers, but the patient would not consent to lose his limb. He then came up to town, and Mr. Wakley undertook an operation, the result of which, if successful, would be to leave him still the use of the disabled foot. The operation was one never before attempted in this country, and the large surface that was necessarily exposed, the number of strong ligaments and tendons that were to be divided, the difficulty of cutting out and disarticulating so deeply-seated and strongly-knit a joint as that of the ankle, coupled with the general constitutional debility of the patient, rendered the operation a protracted and a hazardous one, and left the chances of his ultimate recovery extremely doubtful. The patient is now perfectly recovered; he has gained considerably in flesh and strength; and is able to walk about very well with the assistance of a stick. The deformity, considering the large mass of bone removed, is slight, and the inconvenience in walking, trifling.—*Cholera*.—Letters from Moscow of the 3rd, announce that the cholera had begun to decline in that city. The disease was rapidly approaching towards Hungary and Bukovine. One-third the number of cases attacked, died at Galacz. In the cities where it rages, the people desert them. Giurgewo is depopulated from this cause. The disease prevails also at Silistria, Turturkay, Popica, and three other cities on the frontier of Wallachia. It is remarkable that the sickness has not been increasing on the side of the Danube which extends into Bulgaria, except at one place called Maczyn; and still more remarkable, none of the sailors on that river have taken it. At Moscow, 1724 have fallen sick, and 728 died between the 13th and 20th June. The disease is reported also to have just broken out at Nicolagew, in Cherson, and in the quarantine at Odessa. At Constantinople, the disease continues to make great havoc, and also in some villages situated on the Bosphorus.—The number of students in the medical schools of France, is 1875, of whom there are in Paris 800, Montpellier 175, and Spasburg 77. The balance is about equally divided among 20 minor schools in the Provinces. Spain numbers 1500 students, of whom there are in Madrid, 1100, and in the united schools of Barcelona, Cadiz and Santiago, 400.—It is reported that Mr. Arnott, surgeon of the Middlesex Hospital, has been appointed surgeon to the North London Hospital, and Professor of Surgery in University College.—Dr. Bennet has been elected Professor of Institutes in the University of Edinburgh, vacated by the translation of Dr. Allen Thompson to the Professorship of Anatomy in the University of Glasgow.—A fatal case of poisoning by arsenic is recorded by Dr. Castle, in the London Medical Gazette, July 14, quoted from the Provincial Journal, in which the whole amount taken was 1.83 gr. in the form of Fowler's solution, and this during a period of five days. It is the smallest fatal dose from this poison on record. Intense inflammation was set up in the alimentary canal, and appears to have destroyed life by indirectly affecting the heart, and inducing fatal syncope. The poison was detected in the stomach, its contents, and in the liver.—William Bowman, Esq., has been appointed Adjunct Professor of Physiology at King's College, London, with Dr. Todd.—*Veracity of Homoeopaths*.—"The readers of the late British and Foreign Medical Review will recollect that during the last year or two of its existence, it contained some statistical statements of the results of the homoeopathic practice, pursued by Dr. Fleischman at his hospital in Vienna. But it is not all gold which glitters. His statements, it appears, are mere forgeries, as has been ascertained by an examination of the books of the establishment made by M. Balfour. In his report, Dr. F. had stated, that of 64 cases of pneumonia admitted during 1846, only two died, or 3 per cent, whereas it has been found in the books that in the space of three months, three persons once patients, died out of 19—viz., 5 per cent. It was also stated that all the patients with ague were cured, save two who died, whilst the books gave within the above-mentioned quantum, the name of a patient who left the hospital in a worse state than when he entered it. Finally, two cases of pleuritic effusion and general anasarca were reported as cured, whereas the individuals left the house in exactly the same state as when they were admitted."—*Lancet*.

THE
British American Journal.

MONTREAL, SEPTEMBER 1, 1848.

DR. CODERRE'S LETTER AND THE REPEAL ASSOCIATION.

So long as the members of the Repeal Association continued to indulge themselves in anonymous lucubrations, against ourselves, so long have we maintained silence against their personal attacks. It is, and has been, our opinion, that if the cause in which they were embarked was good, and the motives of the parties honest, there was no good and substantial reason why the writers should withhold their names, or seek for a medium for communicating their ideas beyond the only professional one which the Province possessed. We have repeatedly stated that our columns are not for a party (and it is a matter of sincere regret that parties exist), and we think that the admission of Dr. Coderre's lengthy letter, the only one received from any member of that party, and inconveniently long, considering the press of original communications, will prove our sincerity in this respect. The profession has now before it the views and the objects of the two parties, into which the faculty of Lower Canada is now split; and while we accord to Dr. Coderre some merit for making out his case in the way in which he has done it, *i. e.*, making the best of a bad case, we do not intend to let his letter pass without some reflections suggested as much by its matter as its style.

If, however, Dr. Coderre expects that our business is rigorously to follow him throughout his rambling production, and to answer the objections which he urges *seriatim*, he is most grievously mistaken. A number of them condemn themselves, and therefore require no remarks whatever at our hands. Upon a second class, which are but the mere expression of Dr. Coderre's opinion, as differing from our own—having already, in previous numbers, expressed our own—we leave our readers to decide; and on a third, as the argument hinges entirely upon the supposed quantity of legal acumen which Dr. Coderre possesses, their value must, of course, depend upon the exact appreciation of the quantum, and that value may be beautifully determined by a comparison of the legal attainments of the medical author of the letter with those of the late Attorney General. Dr. C. forces the comparison from us, and if he suffers by it, it is not our fault.

The remarks, which we now intend to make, have chiefly reference to the signatures to the protest, and in these we intend to be as brief as possible. 1st, With reference to the signature of Dr. Robitaille, we ask Dr. Coderre why, even admitting the conversation to which he alludes to have taken place, and which we certainly did not hear—we ask, why was not the Christian name added? What was the object to be gained by the omission of the Christian name in this, as well as other instances in the protest. Was it that the name of one known to the profession should be mistaken for one unknown to it? We pause, in this case, for a reply. The authority which dictated the use of the surname, most surely also dictated the use of the Christian name, and why was that Christian name omitted in the protest? Let Dr. Coderre answer this.

2. With reference to Dr. Badeau: Dr. Coderre's reason for having entered this gentleman's name in the protest, is no reason at all. Dr. Badeau sought amendments in the act, which every member of the corporation is seeking, but not a repeal. Dr. Coderre admits having used Dr. Badeau's name without authority, and attempts a most lame excuse, without even an apology for his fault.

3. As to the name of Dr. Dubé, Dr. Coderre admits his error.

4. As to the name of Dr. Tassé. In this case, the publication of a letter under his signature, compels us to place him in a singular position. We mentioned his name on authority. The same authority now permits us to use their names—and that authority is Drs. Arnould and Sutherland, to whom Dr. Tassé distinctly stated, that he had given *no* permission to Dr. Coderre to use his name in the protest. We thus adduce two witnesses of the fact of his having done so.—Dr. Tassé's subsequent denial, by no means disproves the fact. Misconception might arise in the case of one witness—"Unus testis, nullus testis"—but "in the mouth of two witnesses shall the truth be established."

There is a point, however, in Dr. Coderre's remarks concerning Dr. Badeau, which we intend to notice in a special manner, as it demonstrates to a nicety the petty devices to which the party stoops for the purpose of kindling and maintaining an enmity against the Institution. We proclaim it to be utterly unworthy of every right-minded member of the Profession; and as we are perfectly persuaded that not one-half of the Canadian country practitioners have seen the Bill to read it and study it for themselves, the attempt at the perversion of its spirit and obvious import, is the more

to be condemned. We will now translate the passage:—"Since the operation of the Act itself, there is no longer protection for those who are not members of the Corporation; and more than *two-thirds* of the practitioners of the Province are in this situation, and none of them can become members of this Corporation except after *four years' probation*; that is to say, four years after having made application to become a member." Where, we ask Dr. Coderre, is his authority for this wanton statement. Is it to be found in the Act? Let us see. "And be it enacted, that the College of Physicians and Surgeons shall have power . . . 4thly. To fix *the period of probation* which persons must undergo before being eligible for election as members of the College, which *period shall not be less than four years*," &c., &c. And again: "Be it enacted, that all persons obtaining the certificate for license to practice from the College of Physicians and Surgeons of Lower Canada, shall be styled Licentiates of the said College, and be, *consequently* in due course of time*, eligible to be elected members of the same." Any person reading these extracts, cannot fail to notice an explanatory connexion between them. What is the "due course of time"—the probational "period of not less than four years?" When does this probational period commence? From the date of the "certificate for license!" And in the first instance, this rule is made to apply to all who were licensed before the passing of the Act; and in the second, to those licensed subsequently; and we must here deliberately state this as our conviction, that a mind, only, imbued with an overweening desire of making its possessor notorious, and unscrupulous as to the means by which it may effect its object, can put any other construction upon these extracts.

Based upon this fair and legitimate construction of the act was the conduct of the members of the corporation at its last meeting in Quebec; and the bye-law framed in accordance with it. Every member of the profession, who had been a licentiate of four years standing, was at once admitted a member of the corporation upon merely signifying his desire to either of the District Secretaries, any time before the October meeting of the Board. Thus, and at the first oppor-

* Words are sometimes, in argument, unfortunate things, and prove stumbling blocks to those who cannot appreciate their value. Were this adverb omitted, Dr. Coderre's argument would even then not be worth the trouble of refuting, for the act would declare, that any subsequent member would have to renew his license, or obtain a "certificate of license from the College." This would then be the strict legal and logical interpretation of the act. The use of the adverb, coupled with the words which follow, "in due course of time," so clearly indicates the meaning of the words, "period of probation," and its commencement, as to render any further remark a work of supererogation.

tunity, was admission to the Corporation thrown open to the profession at large, and upon equal terms for all. This occurred in the month of May. Have these bye-laws been sanctioned yet? They have not. And why? Because Dr. Coderre and his party have remonstrated against it; and the Executive has temporized, and constituted itself into a kind of judicial court, to consider the questions raised by the party, and which the Court of Queen's Bench is the proper and only tribunal for deciding. Should the October meeting of the Board of Governors arrive without a previous ratification of the bye-laws, the profession will then be enabled to judge who those are "whose measures tend to destroy the harmony and order which should exist among practitioners, and above all, injure the general interests of the profession."

We have not yet done with Dr. Coderre and his production. A little more of Burnett's disinfecting fluid, and the matter will *keep* until next month—nay, what remains *shall* keep.

Coroner's Inquest—Death Accelerated by Salivation in the Third Stage of Tubercular Consumption.—

An inquest was held on the 11th August on the body of Mrs. James Perry, whose death was reported to have been accelerated by the improper exhibition of mercury, said to have been administered by an unlicensed practitioner named Young. The facts of the case, as elicited at the inquest, are simply these: Mrs. P. had been, until a very recent period before her death, under the charge of Dr. Arnoldi, and Dr. Holmes had seen her in consultation. The existence of tubercles in her lungs had been clearly made out; and for some time before the intermission of Dr. Arnoldi's attendance, a palliative treatment had been most judiciously adopted. In consequence of the advice of friends, Young was called in, who stated that her lungs were not diseased at all; that her liver was tuberculated, as well as her kidneys, and that the uterus was somehow or other displaced, and that the cessation of the catamenia, a common symptom in phthisis, was due to that displacement. This latter he endeavoured to rectify by some kind of manual interference, some traces of injury from which were visible at the post mortem; and he persuaded the patient to submit to a system of salivation, which he assured her would cure her. In the course of three or four weeks, however, despite Young's predictions, the patient breathed her last, having been visited for two or three days by Dr. Burns, who found her suffering from salivation, with its concomitants. The inquest was held to determine the the propriety of Young's practice, and how far it may have accelerated the decease. Drs. Nelson and Hall

having been summoned on the part of the Crown, performed the post mortem examination, and found the left lung the seat of extensive tubercular deposit, with anfractuous cavities, as well as the superior portion of the right lung, with very general pleuritic adhesions on the left side, and superior portion of the right. The liver slightly enlarged, with a tendency to granular degeneration; the mesenteric glands in a tuberculated state; but all the other abdominal viscera of normal appearance. The uterus perfectly healthy, and in natural position. The upper part of the vagina, immediately behind the os uteri, presenting an ecchymosed appearance, which Dr. Nelson considered as the effect of injury. Although the question of salivation was well substantiated, still there was not evidence adequate to bring the exhibition of the mercury home to the prescriber, the books of the apothecary, which were sent for and examined, failing in the proof, in consequence of prescriptions having been compounded for several persons named Mrs. Perry by Young's orders. The verdict returned was, "that the death of the deceased was accelerated by the improper administration of mercury, but there is no evidence to prove by whom such mercury was exhibited." This verdict was strictly in accordance with what was elicited at the inquisition, and we can therefore find no fault with it, because the jury could not travel beyond their record; but we have no doubt, that had the evidence been conclusive, the verdict of the jury would have inculpated Mr. Young to a rather alarming extent. Young has escaped in the mean while, and *in the mean while* he prosecutes his trade, not, most certainly, to the damage of any practitioner in this city, but most assuredly to the jeopardy of *some* who have since placed themselves in his hands. The College of Physicians and Surgeons have, it has been fully proved in the case against Gregory, (a Thompsonian practitioner,) recorded in this journal, no right to prosecute in *their own name*, but steps have been taken since this inquest, which will ensure conviction upon the ad-duction of the required proof. We cannot, however, avoid this reflection, that if the people prefer the boasts and pretensions of an empiric to the deliberately formed opinions of a regularly educated practitioner, whose reputation is dependant on his prognosis and treatment, we say, by all means let it be so, for there is nothing so sure of proving, by sore cost, that it is not all gold that glitters.

Formula for the Preparation of the Etherial Solution of Gun Cotton.—We have found considerable difficulty in preparing the gun cotton in a state to ensure its solubility in sulphuric ether. Our experiments would lead

to the conviction, that the finest quality of gun cotton, which we have had no difficulty in preparing, is insoluble, or nearly so, in that liquid. A gun cotton, of ready solubility and easy manufacture, may be prepared as follows: Take of nitric acid, sp. gr. 1.350 (the ordinary sp. gr. of commercial nitric acid) ʒij.; sulphuric acid (commercial) ʒiv. Having mixed the acids in a glass vessel, stirring them with a glass rod, add immediately, of freshly carded cotton, ʒij. ʒij., and digest for the period of fifteen minutes. The acid is now to be poured off the cotton, and the latter washed with water until litmus paper is not affected. The cotton is to be finally squeezed between the folds of a clean towel, to remove as much water as possible; teazed out, and finally pressed between sheets of blotting paper, until quite dry, and instantly thrown into rectified sulphuric ether. The quantity of gun cotton thus formed is sufficient for about a pound of ether. It should form a transparent, colourless liquid, somewhat of the appearance of thin mucilage.

SHEETS FROM MY PORTFOLIO.

By A. VON IFFLAND, Esq., M.D.

(Concluded.)

It is scarcely necessary to enter at length here upon the numerous advantages which hospital practice possesses over every other means of medical instruction; suffice it to repeat, that the patients are more absolutely subjected to the disposition of the practitioner; he is not embarrassed by the contrariness, the whims, and prejudices of the sick; his ordinances are superintended by intelligent students, and executed by vigilant nurses; the facility and number of *post mortem* examinations serve to test the correctness of the diagnosis of each case, to correct mistakes, and to ascertain, with precision, the nature of the organic lesions, that have given rise to each train of symptoms. These are some of the circumstances that impart to hospital practice and experience its great value, and has caused it, at all times, to be regarded as furnishing the most important and precious information on practical details, as well as shedding a flood of light on pathological science.

If, then, we contrast the advantages which a student must derive from attending hospital practice, with the frittering away of four or five years of the most valuable time of his life in the closet of his country patron (or perhaps city or town), reading medicine, surgery, anatomy, and even that all important branch, chemistry,* without order or method, and without any

other assistance, save the occasional explanation of terms by his superior, sometimes even unintelligible to him—can it be possible, that a few months attendance at lectures upon all these departments of the profession, in any university, college, or school of medicine, could possibly qualify him to enter upon all the duties of a practitioner! and thereby assume a charge, certainly the most responsible and the most important which can be confided to any member of the human family!

Here I could portray many deplorable results of an imperfect medical education, but details so humiliating and revolting are remote from my present purposes; yet the bare mention of their having occurred ought, on the part of the student, to induce him to leave no means untried, and to spare no labour, however long, to master every branch which he may ultimately be called upon to exercise.

The situation and prospects of the country practitioner have, I believe, been sufficiently reviewed, to leave nothing very desirable on the part of those who, now proceeding in the course of their studies, are looking forward to the rural sections of the province, in which to commence their professional career. The actual state of the profession is such, indeed, whether in town, city, or country, as to prove far from flattering in the way of prizes* to the aspirant, and, I must confess, that unless the misplaced vanity or misdirected ambition of parents, is timely arrested, in educating their sons to a profession, for which there exists, probably, no aptitude (but to attain which, requires long protracted studies, enlarged intelligence, a judgment solid, strong, and clear, and a habit of application, which no difficulties can shake, no labours tire), their future life will be embittered with regret and sorrow.

proceed in his physiological inquiries; without it, one of the most important of the animal functions, respiration, is beyond his comprehension; and, that it is impossible to acquire an accurate and precise knowledge of chemistry without actually making experiments himself. The necessity of chemical knowledge to the practitioner in medicine is sufficiently apparent; for without it, he can neither become acquainted with the various solids and fluids of the animal body, nor can he understand the action which different medicinal substances exert on each other reciprocally. In pharmacy, this branch of knowledge is still more essential, as being continually called for. There exists, however, a fundamental error in the education of young men in this respect; they usually pass much time in learning the preparations of a great number of medicaments, in a sort of routine, and afterwards attend a course, or at most two, of lectures on chemistry, from which they, at best, acquire a superficial knowledge of the science.

* Whatever political influence country medical practitioners may attain in their localities, they certainly cannot all expect to become M. P. S., and thereby secure a round hundred (exclusive of quadruple travelling expenses) a year, as the wages of seven or eight weeks' labour in cushioned chairs—much less of all becoming superintendents of schools, deputy adjutant generals, &c. &c.

* Every step which the student makes must remind him of the necessity of a knowledge of chemistry; without it, he cannot

It is full time to warn those parents, that, if respectability of character forms the principal object they have in view, in bestowing a superior education upon their sons, and, to realise which, they sometimes withhold some share from the rest of the family, and even restrict their own wants and enjoyments, the best means to secure consideration and distinction in life, is to avail themselves of other avenues than those offered by learned professions, now increasing beyond the requirements of society, and at once better suited for the development of energetic industry, and the peculiar idiosyncrasy of their moral capacity.

Education is applicable to all the avocations of life, and surely to none more so than agriculture: and it is a truth not to be controverted, that a non-appreciation of the high respectability attached to this noble art, its extreme backwardness in improvement, and failure in obtaining that wealth which is consequent upon its perfectability, can all, all be traced to the absence of education. It is to education that this great and important art is so much indebted for the numerous and accumulative benefits it daily confers upon mankind, and, from its close and happy alliance to chemistry, and its majestic march,—we know not what the agency and influence of the latter may yet have reserved in store! And yet the impression in the rural districts is still, that superior education is only applicable to the learned professions. Fatal error! which nothing but education can remove, and that too, unhappily, but in the course of many years!

Need we look round for the many other honourable opportunities which daily present themselves, to rouse and call forth the energies of intellectual minds, and urge them forward to other careers of usefulness, and thereby become the architects of their own fortunes! Need we adduce examples to prove, that in all the practical concerns of life, it is in proportion to educational acquirements, and the wisdom of exertion, that large shares of wealth, and the artificial distinctions in society have been attained, not only in towns and cities, but in the rural districts of the province!

From what I have already observed in the foregoing pages, it would be needless to disguise the truth, that at the present time, there is not a parish, however small or extensive, which is not provided with more medical practitioners than can be required to meet the necessities of the inhabitants, and who (as stated before) from their poverty, and their disinclination to call in their assistance, except at times when death is near at hand, and then frequently the quack is preferred—cannot, it must be confessed, but offer very precarious means of subsistence to the *regular practitioner*, as well as render all his efforts unavailing to maintain even that outward respectability of character

which his position demands. It is also worthy of observation, that although towns and cities increase annually in their population, it is not so in the seigniorial country parishes, but, on the contrary, a diminution is seriously felt during several months of the year, by the considerable number of young and middle-aged men (single and married) who leave their homes for the United States and other distant parts, where *chantiers* are established, manifestly producing effects highly prejudicial to the interests of agriculture, and the morals and well-being of the inhabitants.

It is true, that no avocation of life is entirely exempted from difficulties, but how much more must these appear insurmountable in a profession in which the chance of success almost generally depends upon the fluctuating whims and caprices of the multitude, incapable of appreciating the superiority of the profound over the ignorant physician! Should, therefore, the young practitioner, endowed with very superior attainments, make choice of a rural section to commence his professional career, he must unhappily prepare himself—independently of the extremely illiberal resources which he can expect to derive from his professional labours—to experience the full intensity of wounded pride and feelings, by witnessing very inferior acquirements frequently usurping his claims to confidence. He will soon perceive, that in the medical profession, he will have to contend with a false and fraudulent reputation for talents. If he possesses a strongly sensitive mind, this peculiar and anomalous state of things—upon the truth of which he probably never before meditated—cannot but render his position painfully depressive. And yet, with all these operating upon an anxious and oppressed mind, he will also discover other impediments, against which he will also have to struggle, and which in other avocations than that of a practising physician and surgeon, he might, without any personal sacrifice of feeling, have easily surmounted.

Having devoted a long series of years to the medical profession, both in public institutions and private practice, and under all the alternations of gratification and discouragement, it is my intention, at no very distant period, to submit to the medical public a more extended inquiry into the past and present state of the medical profession in Canada. In the mean time, I trust that the foregoing sheets, resulting from long experience and observation, will meet with some regard on the part of those for whom they are principally intended.

NOTICES TO CORRESPONDENTS.

We have to notice a communication from our esteemed correspondent at Quebec, who, in this instance, signs himself "*Medicus*." While the latter part of his letter furnishes a fine subject for severe criticism, as it details a partnership between a regular practitioner and a boy, the latter of whom visits and prescribes, and whose hardihood leads him even to attempt operations on the eye, for which we should conceive that he is amenable to punishment in accordance with the act; the omnivance at such a procedure is a disgrace to the practitioner who does it, and cannot be too severely censured.—Still, we do not conceive that there is anything improper in that practitioner having as many offices as he pleases in different parts of the city in which he practises, or even

out of it, if it so suits him. As we do not think that our correspondent has taken up the question on proper grounds, we would beg of him to reconsider the subject of his communication. On the other matters, we will be most happy to hear from him.

We have had communication of a letter from Dr. S. Gilmore, of Three Rivers, containing the particulars of an assault committed upon him by a medical student, in consequence of Dr. G.'s having been one of the examiners at the last meeting of the Medical Board at Quebec, who rejected him for license to practice. We think it better to wait until such time as the trial for the assault has been over, when we will publish the matter in detail. We hope Dr. G. will do his utmost to have the ruffian properly punished, and we should think that his conduct precludes him from being ever permitted to enter the profession.

Dr. Borell (Toronto). The notes sent will be inserted in their proper places.

Dr. Hunter, (Hamilton). The parcel was found in the Exchange Hotel, the waiter having never delivered it to Mr. R. who was to have taken it. We were not made acquainted with this until we made inquiry after receipt of Dr. H.'s letter.

Mr. Fulsom is at present collecting for this Journal. We hope our subscribers will respond to the call made on them.

BOOKS, &c., RECEIVED DURING THE TWO MONTHS OF JULY AND AUGUST

The American Journal of the Medical Sciences; July.
The Western Journal of Medicine and Surgery; vol. 8, new series, Nos. 4, 6; third series, vol. 1, Nos. 1, 2, 3, 6; vol. 2, Nos. 1 and 2. We are much obliged to the editor, for his attention to our request.

Southern Medical and Surgical Journal; vol. 3, No. 12; vol. 4, Nos. 1, 2.

New Orleans Medical and Surgical Journal; July—Nos. 12, 3, and 5, vol. 3; and No. 3, vol. 4, we would be particularly obliged by receiving through our agents, as advised.

Buffalo Medical Journal; July, August.
Missouri Medical and Surgical Journal; July.
Western Lancet; July.

St. Louis Medical and Surgical Journal; No. 5, vol. 5, never arrived; send to our agents.

New Jersey Medical Reporter; July; No. 2 of this volume has never arrived; would be glad to receive it through our agents.

The People's Library, a Cyclopaedia of Arts, &c.; vol. 1, No. 1; from the agents.

Journal of Education; July.
Agricultural Journal; July and August.

American Journal, and Library of Dental Science; July.
Circular of the College of Physicians and Surgeons, of New York.

The Medical Examiner; July and August Nos. not arrived.

Proceedings of the State Medical Convention held in Lancaster, April, 1848; and Constitution of the Medical Society of the State of Pennsylvania, then adopted. 1848.

Hydro-Therapeutics, or a Treatise on the Water Cure, &c. By Robert Hunter, M. D. Toronto, 1848.

The Charleston Medical Journal and Review; July.
The Medical News and Library; June, July.

The Dublin Quarterly Journal of Medical Science; Nos. 8, 9, and 10.

The Dublin Medical Press; regularly.

The London Medical Gazette; regularly.

The Provincial Medical and Surgical Journal; regularly.

The New York Annalist; regularly.

The parcel of Messrs. Wood & Co. has arrived.

MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR JULY, 1848.

DATE.	THERMOMETER.				BAROMETER.				WINDS.			WEATHER.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	10 P.M.
1,	+76	+82	+63	+79.	29.52	29.51	29.63	29.55						
2,	" 65	" 84	" 72	" 74.5	29.65	29.54	29.42	29.54				Rain	Fair	Fair
3,	" 60	" 72	" 62	" 66.	29.34	29.18	29.15	29.22				Fair	Fair	Rain
4,	" 62	" 71	" 60	" 66.5	29.31	29.42	29.50	29.41				Rain	Rain	Rain
5,	" 65	" 72	" 54	" 68.5	29.53	29.46	29.52	29.50				Rain	Shwrs	Fair
6,	" 58	" 67	" 56	" 62.5	29.55	29.57	29.62	29.58				Cloudy	Rain	Rain
7,	" 61	" 70	" 60	" 65.5	29.70	29.72	29.78	29.73				Fair	Fair	Fair
8,	" 61	" 78	" 65	" 71.	29.90	29.88	29.88	29.89				Fair	Fair	Fair
9,	" 68	" 79	" 67	" 73.5	29.89	29.86	29.84	29.86				Fair	Fair	Fair
10,	" 75	" 81	" 69	" 78.	29.83	29.79	29.80	29.81				Fair	o'ere'st	Cloudy
11,	" 76	" 91	" 75	" 85.	29.85	29.81	29.82	29.83				Fair	Fair	Fair
12,	" 80	" 93	" 76	" 86.5	29.84	29.79	29.76	29.80				Fair	Fair	Rain
13,	" 73	" 91	" 74	" 82.	29.70	29.66	29.60	29.65				Fair	Fair	Fair
14,	" 71	" 86	" 64	" 78.5	29.53	29.40	29.48	29.47				Fair	Fair	Fair
15,	" 62	" 74	" 63	" 68.	29.54	29.47	29.41	29.47				Fair	th.&rn	Cloudy
16,	" 61	" 70	" 59	" 65.5	29.39	29.40	29.47	29.42				Fair	Fair	Fair
17,	" 58	" 73	" 60	" 65.5	29.46	29.52	29.61	29.53				Cloudy	Shwrs	Cloudy
18,	" 65	" 77	" 65	" 71.	29.65	29.68	29.72	29.68				Shwrs	o'ere'st	Rain
19,	" 69	" 85	" 74	" 77.	29.71	29.65	29.63	29.66				Fair	Fair	Fair
20,	" 76	" 90	" 75	" 83.	29.63	29.59	29.58	29.60				Fair	Fair	Fair
21,	" 78	" 85	" 71	" 81.5	29.60	29.57	29.56	29.58				Fair	Fair	Fair
22,	" 72	" 70	" 68	" 71.	29.49	29.43	29.55	29.49				Fair	Fair	Fair
23,	" 69	" 78	" 70	" 73.5	29.64	29.65	29.66	29.65				Rain	Rain	Cloudy
24,	" 65	" 76	" 66	" 70.5	29.65	29.62	29.63	29.63				Fair	Fair	Cloudy
25,	" 68	" 84	" 70	" 76.	29.66	29.61	29.67	29.66				Rain	Rain	Shwrs
26,	" 67	" 81	" 66	" 74.	29.72	29.69	29.64	29.68				Cloudy	Fair	Fair
27,	" 73	" 84	" 69	" 78.5	29.48	29.40	29.50	29.46				o'ere'st	Fair	Fair
28,	" 71	" 78	" 64	" 74.5	29.66	29.68	29.71	29.68				th.&rn	Rain	Shwrs
29,	" 72	" 80	" 67	" 76.	29.71	29.75	29.77	29.74				Fair	Fair	Fair
30,	" 63	" 79	" 68	" 71.	29.81	29.74	29.65	29.73				Rain	Fair	Fair
31,	64	69	67	66.5	29.52	29.38	29.37	29.42				Fair	Fair	Fair
												Rain	Rain	Rain

Therm. } Max. Temp., +91° on the 11th
 } Min. " 54° " 5th
 Mean of the Month, +73.5

Barometer, } Maximum, 29.90 In. on the 8th.
 } Minimum, 29.15 " 3d.
 Mean of Month, 29.61 Inches.

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ALEX. URQUHART.

August 2.

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For Constitutional Syphilis and Chronic Rheumatism, I have prescribed it with the most marked effects; I can therefore, without the least hesitation, recommend your preparation as one possessing all the Medicinal qualities of the Compound Decoction of Sarsaparilla, while it is, at the same time, more palatable, and less apt to derange the stomach.

I remain, Dear Sir,

Your most obed't serv't,

W. FRASER, M. D.

Lecturer on Medical Jurisprudence,
McGill College.

Montreal, 9th February, 1847.

Montreal, February 10th, 1847.

I beg to certify, that I have employed very extensively, the "Fluid Extract of Sarsaparilla," made by Mr. Urquhart, in all those diseases in which that Medicine is usually prescribed, and that I have found it a most valuable preparation. I can, moreover, state from personal investigation, that the proprietor employs none

but the purest ingredients, and bestows the greatest care and attention upon the mode of preparing the remedy.

ROBERT L. MACDONELL, M. D.,

Lecturer Institutes of Medicine,
McGill College,

Physician to the Montreal General Hospital.

Mr. Urquhart's Sarsaparilla is the only preparation of this valuable Medicine that I can, with entire confidence, recommend to my patients.

M. McCULLOCH, M. D.

Montreal, 10th February, 1847.

DEAR SIR,—I have frequently prescribed your Fluid Extract of Sarsaparilla, and I have no hesitation in recommending it as a very elegant and convenient form for administering that Medicine.

Yours very truly,

GEO. W. CAMPBELL.

To Alex. Urquhart, Esq.

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“ Of Potassium	Lupuline
(very pure.)	Naphthaline
Delphine	Narcotine
Digitaline	Oxide of Silver
Elaterium	Rhabarbarine
Emetine	Strychnine
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