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ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XXXVII.—*Stricture of the Rectum, its History, Pathology, and Treatment, illustrated by cases successfully treated by the knife.* By HORACE NELSON, M.D., late Editor of "*Nelson's American Lancet*," Demonstrator of Anatomy in the Medical Department of the University of McGill College, &c.

(Concluded from page 253.)

X. DIAGNOSIS OF STRICTURE.

Upon a correct diagnosis, not only of stricture, but of every other disease, is based the sole rational plan of treatment that should be adopted for its cure, and if this cannot be attained, its alleviation; inattention to this important point results, every day, in more or less serious errors of practice. It should be remembered that a patient may, at times, complain of all the symptoms usually denoting stricture, and yet this condition not exist, this is frequently seen in dyspeptic persons; while from more immediate causes all the symptoms may be induced, as in pressure of a displaced or enlarged womb, ovarian, uterine, or other pelvic tumours, an enlarged prostate, and lastly abscesses in the recto-vaginal septum. Again, there are several affections of the lower part of the intestine that bear a very close analogy in their general, and not a few in their local, symptoms to stricture. The diseases from which it must be differenced are:—*hæmorrhoidal growths; ischio-rectal abscess; fistula-in-ano; polypus; fissure or irritable ulcer; simple inflammation of the rectum;* and for the purposes of treatment the differential diagnosis of the *spasmodic* and *malignant* forms of stricture should be borne in mind. A little attention to the symptoms of simple stricture—already detailed—and the comparison with the most prominent signs of the foregoing affections, cannot but lead to a correct diagnosis.

a. *Hæmorrhoids.*—There can be no possibility of error, when the hæmorrhoidal tumours are external; when, on the other hand, they are internal, the

finger will readily detect near the upper border of the inner margin of the external sphincter a more or less complete ring formed by soft, elastic, and compressible tumours, which vary at different times and under various circumstances in their size, form, colour, and consistency; they are liable to become inflamed, indurated, and ulcerated, when the throbbing pain and other distressing symptoms will subside, at the same time that increased purulent or sanguineous discharges will afford temporary relief, and in some fortunate instances a permanent cure is effected. Moreover, if the digital is corroborated by the specular examination, no doubt can exist as to the nature of the affection we are called upon to treat.

b. *Ischio-rectal abscess* presents itself under the forms of superficial or acute, and deep-seated or chronic.

1. *Superficial or acute abscess* is generally preceded by all the symptoms of irritative fever: throbbing, shooting, darting pains through the anal and perineal regions. On examination, a hard tubercle will be felt on one side of the bowel, at about its middle portion which, increasing, will press more or less upon the rectum, inducing constipation, sympathetic irritation of the urethra, bladder, and prostate; œdema, externally, of the subjacent tissues, and a livid spot indicating the locality of the tumour, in which suppuration very early takes place, rigors frequently marking the advent of this process. The pus may either be discharged in the bowels, or externally by the side of the anus; this bursting of ischio-rectal abscesses is one of the most prominent causes of fistula-in-ano. These morbid collections are more frequently met with in subjects of strong and otherwise healthy constitutions.

2. *Deep or chronic abscess* comes on very insidiously and is more often met with in persons of weakly and lymphatic temperaments; the pain is of a more obscure nature, and little local inconvenience is experienced unless, as in the acute variety, it should interfere much with the functions of the neighbouring organs. The pus increasing will point more frequently towards the intestine, where there is less resistance than towards the margin of the anus; pressure by the finger is productive of pain, and a tumour of variable size, with a distinct fluctuating feel will be easily detected. If the pus—as soon as it is formed—is not evacuated either by natural or artificial means, it will burrow around the anus, through the nates and even down the thighs; it may induce fatal peritonitis by opening into the abdominal cavity through the recto-vesical fold of the peritoneum, or less directly by the extension of the irritation.

c. *Fistula-in-Ano* is more frequently observed in persons of sedentary habits and weakly constitution, and is, oftentimes, a symptom or accompaniment of chronic or slow disease, more particularly phthisis pulmonalis. It may be *complete* or *incomplete*. It generally results from the suppuration of hæmorrhoidal tumours, abscesses caused by contusions, wounds, or the irritation of foreign bodies. There is deep-seated pain and uneasiness for some time after defecation; an external examination will discover on one side of the anus a small ulcer surrounded by an elevated bluish red margin, and through which there is a constant discharge of reddish fluid, at times very thin, at others thicker and partaking of the nature of pus, so that it is almost impossible for the patient to keep himself in a comfort-

able or cleanly condition; then there will be the escape of flatus, and finally of fecal matters, this last is of itself pathognomonic of complete fistula. By an internal examination, the finger will detect, at a distance of from one to four inches from the anus, a small elevation on the mucous membrane—the intestinal opening of the fistula—and the diagnosis will be completed and assured by the passage of a probe, through the cutaneous opening, along the sinus, when it will come in direct contact with the finger.

In the incomplete form of fistula-in-ano, there will be pain, heat, and a throbbing sensation in the rectum, with some degree of hardness on the affected side of the anus; the dejections will be mixed with a variable quantity of puriform secretion. Pressure exerted externally near the anus—where the integuments according to the stage of the disease, may or may not be thinned and discoloured—will force out the pus contained in the sinus; internally, the finger meets the same appearances as in the complete form, only that finger and probe do not come together, and pain is experienced when pressure is made against the tuberosity of the ischium and verge of the anus.

d. *Polypus of the Rectum.*—Is of not very frequent occurrence; happens about the twentieth or thirtieth year, rarely after, and occasionally before these periods; defecation becomes gradually more and more impeded; there is tenesmus and weight in the anal region; the feces are often bloody, and occasionally present a groove or furrow upon one surface, which corresponds to the point of attachment, size, and situation of the polypus. When the tumor is near the anus, or its pedicle is long, it becomes extruded through expulsive efforts, when all doubt is removed; if the polypus is retained in the bowel, the finger will generally detect, near the anus, a smooth, movable and pediculated tumor; its progress will be attended with some degree of constitutional disturbance.

e. *Fissure and irritable Ulcer of the Anus* are, from the assemblage of their symptoms, the affections most likely to be mistaken for stricture; as these two conditions are in almost every case present together, and are so nearly alike in their symptoms and consequences, I include them under one head.

Fissure and ulcer is almost invariably situated on the posterior, or sacral surface of the sphincter; the situation was only found to vary in 6 out of 100 cases; in three the fissure was on the perineal surface of the muscle, and all in women, in two on the left, and in one on the right side.*

It is more commonly seen among hysterical females and those exposed to syphilitic infection, and in enfeebled cachectic men; it may result from inattention to the regular condition of the bowels, and often accompanies a scrofulous diathesis, tubercular disease of the lungs, or as a sequence of chronic diarrhoea. There is very acute pain during and, for a considerable period, after every evacuation, and the pain is generally confined to one portion of the bowel, at its sacral aspect just above the anus; this pain will be occasionally complained of from the time of one evacuation to another; the feces will be streaked with blood or pus, and there is a more or less constant oozing of sanious, purulent or muco-purulent matter from the anus. The finger introduced through the anus finds much difficulty to overcome the irritability and spasmodic action of the

* J. Rouse, British Medical Journal, May 12, 1860, p. 356.

sphincter; having cleared it, it will feel a depression in the mucous membrane either in the form of a small soft ulcer or, more commonly, in that of a narrow, long fissure or crack, with raised and soft edges, in one of the folds of the mucous membrane at a point corresponding generally with the coccyx. The contact of the finger increases the acuteness of the pain, and on its withdrawal it will be stained with blood, marking pretty accurately not only the form and extent of the fissure, but also its situation. The constitutional symptoms are strongly marked: the countenance is expressive of great suffering; disorder of the digestive organs; extreme nervous irritability, and all the other attendants of severe and protracted disease. The diagnosis of Fissure may be summed up in the following few words; the presence of the fissure itself, the spasmodic contraction of the sphincter ani, and the burning pain.

f. *Simple inflammation of the Rectum.*—This may be induced by numerous and varied causes, many of them similar to those productive of simple Stricture; there will be smart irritative fever, a distressing burning pain, and heaviness and throbbing at the anus and in the rectum; the evacuations are scanty, and mixed with mucous or bloody discharges; tenesmus and sympathetic contraction of the sphincter muscle; irritation of the genito-urinary organs, at times strangury, and even retention of urine. The finger introduced in the rectum will find its natural heat increased to a high standard, the mucous membrane smooth throughout its extent, and bathed with the morbid secretion characteristic of simple inflammation of the Rectum.

g. *Spasmodic Stricture.*—Little need be said as to the diagnosis between spasmodic and simple or organic stricture of the Rectum, attention to the predisposing causes, their complications, the peculiarity of the symptoms, and a physical examination, detecting the increased thickness of the sphincter and its very contracted condition, will soon determine the points at issue.

h. *Malignant Stricture.*—The diagnosis between simple and malignant stricture is attended with numerous difficulties, and in some instances a satisfactory distinction cannot be arrived at.* The age of the patient, the hereditary tendency, or acquired constitutional diathesis, and the immediate causes producing the obstruction, must be closely questioned. If the subject is young, or under the middle period of life, and the stricture clearly results from simple inflammation, its progress will, generally, be more rapid, and all the symptoms more clearly defined. The finger, during an examination, although it detects a considerable amount of hardness in the affected part, will be of a smooth uniform surface, and does not impart the rough and stony feel peculiar to scirrhus. This form of stricture has been observed more frequently in the first portion of the rectum than simple stricture; and is characterized by the peculiar sharp and lancinating pain through the affected part, together with a more constant feeling of heat, and a discharge of sanguineous or fetid purulent matter, which discharge is always increased by an examination, and after an evacuation. At a more advanced period the contraction will increase, the pains are more acute, the progress of the case is very rapid, and the constitutional complications develop themselves. We must, however, bear in mind, that in a few cases the disease has run its course

*VIDAL; op. cit. p. 424.

so slowly and insidiously, that it was only at the first examination, that an impermeable barrier was discovered and from which unfortunate state of things no relief can be found except in death.

When the stricture is of the scirrhus form, there will be a greater degree of induration and contraction with more or less irregularity of surface, and with a tendency to spread upwards, rather than downwards towards the anus; the disease may spring out in the cellular tissue surrounding the rectum, it will then press upon it, and from contiguity, the entire intestine, and indeed all the tissues and organs of the pelvic cavity will become cemented into one hard, immovable cancerous mass. The stricture, in some cases, may be due to the development of a soft cauliflower excrescence springing from one side of the intestine, presenting a large number of small nodulated tumors which slowly invade the whole circumference of the intestine forming a ring, or shooting across one segment makes a band which becomes rapidly developed into a complete closure of the intestine.

XI. PROGNOSIS OF STRICTURE.

After the case has been properly and unequivocally determined to be one of stricture, many circumstances must be taken into consideration before we can rest upon a correct prognosis; we must question the age of the patient and his habits of life, the local and general symptoms, the causes predisposing or exciting of the stricture, its duration, situation, and ascertainable physical characters.

If the constitution is unimpaired, without complications of structural disease in remote or proximate regions; if the stricture is within reach of the finger, and the induration is of an even, smooth surface, we may safely promise the patient a prompt recovery by a judicious plan of treatment. If, on the other hand, the contraction is of long duration and very tight, and accompanied with a great degree of constitutional disturbance, we must express a guarded opinion; and, lastly, if the stricture passes to the ulcerative stage—although not of a malignant character—no hopes, indeed, should be entertained, as, in numerous cases, treatment has not only aggravated the symptoms, but has undoubtedly hastened the fatal issue.

If the patient is somewhat advanced in years, the pain of a constant, shooting nature, and the external manifestations of malignant disease are present, the prognosis becomes highly unfavourable, although he may live for many years. But if the patient has attained about the middle period of life, and the obstruction is the consequence of non-specific inflammation, and proceeds without any very great amount of local or general disturbance, and application is made at an early period, there can be no question as to the favourable issue of the case.

If the stricture is beyond the reach of the finger, and its existence supposed to have been ascertained only through the use of bougies, the chances of the patient are measurably lessened, as the very great difficulty, if not impossibility, in some cases, of satisfactorily introducing the instrument to a greater distance than five or six inches, will always render the treatment tedious, painful and very doubtful, leaving out of the question the complications that may arise from injuries inflicted upon a healthy portion of the intestine.

XII. COURSE AND TERMINATION OF STRICTURE.

The progress of this affection is, in some cases, very insidious and much advance may have been made, and the symptoms have become very urgent before assistance is applied for. In other cases the stricture rapidly advances to complete obstruction, with retention of the fæces, vomiting, pain, and all the accompanying symptoms of intestinal strangulation. A large sac, or pouch, is at times formed by the lodging of a large mass of feculent matter just above the strictured part, which may ulcerate, and either give rise to fistula-in-ano, when an operation, under otherwise favourable circumstances, for the new disease, may prove the salvation of the unfortunate patient; in the female the abscess may open into the vagina, when fæces will escape through this canal; in the male the ulceration sometimes communicates with the bladder, when flatus, urine, and fæces are simultaneously voided; in other instances, again, the ulcer perforates the intestine implicating the peritoneum, with an aggravation of all the symptoms, and the patient dies a prompt death from serous inflammation.

When surgical art avails not, death will take place, as just said, from peritoneal inflammation, directly or indirectly propagated to the peritoneum, or more slowly though not less surely, by a sinking of the patient's strength. The disease may yet progress to complete occlusion, and still the patient may linger an existence of suffering for many weeks; we find in Miller* the record of a case of constipation of thirty days' duration; and in three other cases complete obstruction

* Practice of Surgery, Philadelphia, 1845, p. 434.

lasted from forty to fifty days. We also find mention of a case of five weeks duration, when the stricture suddenly gave way, hardened fæces mixed with blood and mucus discharged, which were speedily followed by abundant feculent evacuations, and the patient ultimately recovered.

In other cases, nothing remains but the making of an artificial anus—a proceeding generally terminating in death—from the previous general impaired state of the system. Lastly, obstruction may take place very suddenly and unexpectedly from acute intestinal strangulation, and death has occurred within two or three days. Persons have been known to die from accumulation of fæces, before ulceration and its symptoms have manifested themselves, or been attended by the evidences of internal strangulation.

The *extent* of intestinal surface involved in simple stricture varies in almost every case; in some it may be from three to four inches in length; in others it will form but a narrow ring scarcely half an inch, and frequently less, in thickness, above which the caliber of the intestine is of its normal diameter, though it often forms a pouch of considerable magnitude. In some rare cases, as in one that came under my observation, that of Mrs. H., No. 3.—there was a double stricture at an interval of near two inches, the second, or highest one, not being discovered till after the first one, near the anus, had been divided, when the finger being pushed through, came in contact with the second. It is very seldom that a simple stricture forms but a partial division across the intestine, though bands have been discovered stretching from one side to the other, leaving a variable space above and below for the passage of the excretions; these bands are sometimes torn, or they become still more strongly organized and tense from

the constant pressure exerted against them by the weight of the column of feculent matter from above. In stricture of the hard or scirrhus kind, a much larger extent, longitudinally as well as circularly, of the intestine is implicated, spreading occasionally from the anus to the promontory of the sacrum; in stricture caused by soft cancer, a portion only of the circumference of the bowel may be implicated, a narrowing of one of its segments from the morbid growths shooting out of the side of the intestine.

XIII. FORMATION AND DEVELOPMENT OF STRICTURE.

The proximate causes of stricture may very correctly be resolved under two heads—those arising from inflammatory action, and others, though of less frequency, from the cicatrization of ulcers, or of wounds accidental, or made by the Surgeon's knife.

In stricture from inflammation, commensurate with the causes producing it, there will be an exudation of coagulable lymph, or fibrine, either on the surface of the mucous membrane or between it and the submucous cellular tissue; this gradually assumes the appearances and characters of fibroid formations, new vessels are developed and ramify through the adventitious substance, it becomes more compact, or, as it is more perfectly organized, it encroaches upon the whole circumference of the bowel through continuity of surface, and is covered by the mucous lining of the gut, which is now very much hypertrophied if primarily affected, or is raised from the muscular coat if the disease has originated in the submucous cellular tissue. In simple stricture it is very seldom that the muscular coat is implicated, hence there is scarcely stricture or puckering of the three coats of the bowel, as is clearly demonstrated after the division of the mucous membrane alone.

If the stricture results from the healing of an ulcer or of a wound, the contraction takes place in relation to the cicatrization required to repair the loss, and hence a proportional narrowing not only of the mucous membrane but also of the muscular and serous coats takes place; thus we have not only an internal ring, but an external depression from the puckering of the whole caliber of the intestine. The very few cases of spontaneous stricture spoken of can only be explained upon the assumption of some organic change in the part itself, from some unknown or unappreciable cause.

XIV. PATHOLOGY.

In simple stricture, the mucous membrane is not only thicker but of a harder structure than natural, and is less vascular, hence its white or fibroid appearance. "In malignant stricture, dissection reveals great and extensive thickening and consolidation, as well as confusion of all the parts. The disease is not confined to the coats of the intestine, but is continued more or less extensively into the cellular membrane beneath the peritoneum reflected over the sacrum and bones of the pelvis. The firm, yet elastic feel, of this disease is peculiar, much resembling that of cartilage; on opening the cavity of the bowel, the canal is found nearly or completely closed the section presenting so few traces of original structure as to render it difficult to say in what particular structure the disease originates.

It appears to me to commence in the cellular membrane connecting the coats of the intestine; an opinion not only rendered probable from the appearance of the parts, but from the evident facility with which the disease extends itself in the cellular tissue.”*

XV. TREATMENT OF STRICTURE.

I have now come to the consideration of the treatment of stricture, and it is in this part, more particularly, that I am compelled to dissent, and not without reason I believe, from the views entertained by teachers and writers and adopted by the profession at large. The only indication that presents itself is the restoration of the canal of the intestine to its normal dimensions, and this object can only be secured through the mechanical means now employed, or through an operation that has proved uniformly successful in my hands.

I will, first, speak of the treatment of simple stricture by the process of dilatation. The first step in the operation is to pay attention to the condition of the bowels, and in some measure soothe the irritation which is constantly kept up in the rectum by the presence of a large mass of fæces pressing upon the strictured part; the patient should be ordered light mucilaginous drinks, the food to consist of such articles as leave but little solid residue that no further additions may be made to the already large fæcal mass; the daily use of tepid injections thrown through a long pipe *beyond* the stricture, and allowed to sojourn in the bowel as long as is compatible with the comfort of the patient, by which means, if properly carried out, the hardened fæces will become softened and diluted, and their evacuation, in a fluid state, is attended with much less pain and straining than in the opposite condition; the patient will in some measure be relieved, and be better prepared for the second part of the treatment. This is to be attempted by the use of bougies, if the stricture is within reach of the finger, commencing with one that will just enter the contracted canal, and in proportion as dilatation is effected, the size of the instrument is to be slowly and gradually increased, and introduced once in two or three days allowing it to remain for some minutes, unless this is counteracted by irritation of the part, which is sometimes apt to spring up in spite of the most careful and gentle manipulation. This condition of things, when present, is to be treated by rest, the hip-bath, opium by injections or suppositories; in some cases the treatment requires to be more active, leeches and fomentations are to be applied to the anus and perineum; and if from the extension of the irritation, there should supervene much abdominal pain with the other symptoms of peritoneal inflammation, no time should be lost to overcome it by the measures usually employed in such cases, ignoring, for the time being, the primary cause of all the trouble, the stricture. When the unfavorable symptoms have been removed, the stricture will be found pretty much in the same condition as it was at the commencement of the treatment, and the same process must again be gone over.

What is the *object* of the bougies and will their use *cure* the stricture? These two important questions are readily and satisfactorily answered in the *negative* by reference to those most in favour of this mode of treatment. “Dilatation

seems to be the *only* means we possess of causing the obliteration of stricture of the rectum." * "The bougies are used for the pressure they excite upon the ring and thereby induce its removal by the process of absorption, and *not* as some have supposed by mere *mechanical* dilatation." † Therefore absorption induced through the pressure of the bougie *seems* to be the only mode of cure for stricture and this is very far from being successful, as I really do not believe it can be carried on to the degree requisite to cause the removal of the entire stricture. "Though a simple stricture *may* be much relieved by bougies, it is *seldom* I think *cured* by this means, there being a great tendency for it to *contract* as soon as the treatment is *discontinued*." ‡ "When after a lengthened, persevering and annoying plan of treatment has been pursued for some time, and a considerable diameter has been obtained, *dilatation* becomes *limited* by the sensitive character of the anus, as also the irritability of the intestinal membrane, and the *total absorption* of the stricture is not *effected*." § If the above opinions are to be respected, and I know not why they should not, as they are those entertained more or less pointedly by all writers, is it not a little surprising that no improvement has been sought to be made in a plan of treatment unquestionably based upon false premises, and almost always unsuccessful in its results? Howship || in giving the results of ten of his cases treated by dilatation, says that there was but *one* case cured, *one* partly cured; and *eight* relieved by the bougie. These facts seem to me to call for stronger reasons for the exclusive use of bougies, in preference to that of the knife in the treatment of stricture, than the fear of hemorrhage, peritoneal inflammation or inflammation of the rectum; although, singular as it may appear, these *three* objections are entirely overlooked in the operation for fistula-in-ano, which no one pretends to cure—even when of considerable extent—otherwise than by the *knife*, when the same parts, as in stricture, are more directly if not more deeply implicated. And yet, "when the stricture is very close, and of long standing, we shall gain time by *incising* its margin, previous to dilatation." ¶ "If a tight callous stricture resists the ordinary treatment, *notch* slightly at several points of the contracted ring, then dilate in the ordinary way."** "Stricture has been *divided* by slightly notching it at different points, then use the bougie, the great risk of hemorrhage, the difficulty of checking it, and the danger of inflammation from wounds of the rectum are serious objections to the proceeding, which should only be resorted to in extreme circumstances, and then with the utmost possible caution." †† "If the stricture yields but slowly, is very tight and indurated, *notch* it towards its posterior aspect, with a sheathed probe-pointed bistoury, without danger to the peritoneum, then a tent of compressed sponge for twelve hours." ††

* A. Todd, Medical Times and Gazette, August 6th, 1859, p. 130.

† R. Drutt, Principles and Practice of Modern Surgery, Philadelphia, 1856, p. 544.

‡ Erichsen, op. cit. p. 792.

§ Todd, op. cit. p. 131.

|| Op. cit. pp. 52-76.

¶ Ashton, op. cit. p. 301.

** Miller, op. cit. p. 426.

†† W. Pirrie, Principles and Practice of Surgery, Philadelphia, 1852, p. 656.

‡‡ Erichsen, op. cit. p. 791.

Other authorities to the same purpose might be adduced, but I think I have sufficiently proved that to perfect a cure, it can only be done by the use of the knife in the last place, when it could readily and securely have been done in the first instance, and a cure effected in the course of three or four days, with very little pain, and comparatively still less inconvenience to the patient.

Some strictures may have very insidiously progressed till a certain amount of contraction and hardness have ensued, and still the introduction, a few times, of the bougie, and attention to the patient's general health and the soluble condition of the bowels, have determined the absorption of the effused lymph, before it had acquired the firmness and consistence of fibroid formation. Many will, no doubt, coincide in the opinion "that bougies often quickly remove disease that at first appeared of an alarming character."*

The great objection, and no doubt the most valid one, to the use of the common rectum-bougie, is that, from its configuration, it not only may dilate the stricture but it must keep the anal opening also in a proportionate state of dilatation and this last condition is of itself, at times, more tedious if not more painful than the material portion of the treatment. To succeed, I will allow the expression, with bougies, the rectum should be stretched to its fullest capacity, while the anus and sphincter remain in their natural contracted state. To meet this important indication Mr. Todd † has contrived and figured an instrument the mechanism of which is certainly well calculated to effect the objects in view. In order to give the reader, who may not have the *Gazette* at hand, an idea of this dilator, the following brief sketch may not be uninteresting; it consists of two blades of finely polished steel forming, when closed, a small size oval bougie. These blades are about three inches and a half long, rounded above and below, and made to separate from and approach each other in a parallel direction, by mechanism contained within. Beneath these is a round stem, one quarter of an inch in thickness, upon which the anus and sphincter are allowed to contract. The parallel movement of the blades is effected by four slight bars of steel placed in pairs—one pair crossing each other above, the other below, united at their intersection by a pivot. The extremities of each pair, at the centre of the blades, are connected together and to the centre of the blades by means of hinges, their distal extremity being permitted to traverse a groove within the blades. The stem, before spoken of, is hollow, and is continued above within the blades, to a fork, the extremity of which is attached to the pivot connecting the intersection of the superior cross-bars. Through this hollow stem passes a rod, which also ends above in a fork, attached in a similar manner to the pivot through the intersection of the lower cross-bars. The other extremity of the rod is a screw, on which is a graduated scale; to this a thumb nut is fitted, having a rim upon its upper part, which revolves in a groove in the extremity of the outer or hollow stem.

With the above description of the instrument, its *modus operandi* is explained as follows: "when the nut is turned from right to left, the inner rod is

* Bransby B. Cooper, Lectures on Surgery, Philadelphia, 1852, p. 440.

† Op. cit. p. 132.

pushed up, and the intersections of the cross-bars are made to approximate, the horizontal diagonal of the central quadrangle becomes, therefore, elongated, and thus the blades are separated. A contrary movement of the nut draws down the rod, and brings the blades together. The screw is made so fine that dilatation can be effected by an exceedingly gradual movement."

He mentions but one case in support of the use of his instrument; a lady had been *two months* under treatment by the use of bougies, the anus only admitting one of five eighths of an inch in diameter. By cautious and gradual extension with the instrument, the stricture was dilated to one inch and one eighth without the least pain or uneasiness; she could retain the instrument as long as she wished, as it caused no inconvenience whatever.

XVI. TREATMENT OF SPASMODIC STRICTURE.

As already stated this form of stricture is generally symptomatic, and, therefore, before determining upon the plan of treatment, it is desirable, as far as possible, to ascertain the causes that may have induced, and still keep up the great irritation and unusual contraction of the sphincter muscle. In the very great majority of cases this stricture will be found to be caused by a fissure or ulcer of the mucous membrane either of the anus itself, or of the intestinal membrane immediately continuous with it; and the only means of remedying the patient's excessive torture, is by dividing the affected part, and partially or totally through the fibres of the sphincter muscle; the after-treatment consists merely in attention to the condition of the bowels the regulation of the diet, and no tents are required.

When the stricture is not dependent upon disease of the mucous membrane, recourse may, possibly, be had to the use of bougies, at the same time that the proper hygienic and remedial measures are adopted; if the stricture should resist the dilating process and the parts become very much irritated the division of the membrane and the superficial fibres of the sphincter muscle, at one or two points of its circumference, will insure a prompt cure.

Should the bougies fail, and objection is raised to the use of the knife, we may adopt the *forcible* dilatation recommended by Maisonneuve * by introducing first one finger, then a second, and gradually the rest of the fingers; then the whole hand is pushed through the sphincter, and when the muscle is cleared, the fingers are tightly closed and the fist forcibly and suddenly withdrawn, this pro-

* Gazette Médicale de Paris, January, 1853.

duces such an amount of relaxation of the sphincter as will effectually overcome its abnormal contraction.

XVII. TREATMENT OF MALIGNANT STRICTURE.

This form of stricture is entirely beyond surgical aid; pressure either by bougies, or other means, to induce absorption, should not for one moment be thought of, as it not only aggravates the sufferings of the wretched patient, but adds fresh stimulus to the disease and hastens a fatal termination. There is absolutely nothing to be done but the administration of anodynes and palliatives to assuage

the agonizing pains; to support the declining strength through such means as the exigencies of any particular case may call for, and to keep the lower bowels as free as possible of feculent matter as has been recommended in the treatment of simple stricture, in one word the surgeon is a powerless spectator, and his office is narrowed down to smoothing the passage to the grave. If the patient does not succumb under general contamination of the system a perfect closure of the intestine will take place, and for which there can be no relief, though some writers have advised to cut through the mass at all hazards, and even with Lisfranc to extirpate the entire rectum, an operation that can never be successful, and which from the meagerness of the details and their great obscurity, one is justified in believing that the cases have proved fatal in a very few days, if not hours.

Delpech,* unfortunately lost too early to science, says that when cancerous closure is complete, it had been proposed to cut through some part of the constriction in order to establish a passage for the feculent matter. This plan is undoubtedly attended with much danger and great inconveniences: to carry a cutting instrument through, or in the immediate neighbourhood of a cancerous mass is to hasten the ulcerative process, which must prove the death of the patient; but in these cases, let the means we adopt be whatever they may, they must always be very defective.

Lastly life may be prolonged for a few weeks, after complete closure of the intestine, by the operation for artificial anus in the lumbar or iliac regions. My readers will necessarily understand that the chance, as small as it may be, can only be entertained in cases of simple stricture; I will moreover refer them to the various surgical authorities as to the situation and manner of performing the operation, one in which I have had neither direct nor indirect experience.

If the stricture is beyond the reach of the finger, and happily this is very seldom the case, little hopes need be entertained from any plan of treatment the knife cannot reach the disease and bougies more often than otherwise fail in their use.

XVIII. TREATMENT OF STRICTURE BY INCISION.

Having now described, as fully as is compatible with the limits of this dissertation, the history, symptoms, &c., and the ordinary plan of treating stricture of the rectum, I will conclude with a few words in relation to its treatment and cure by incision, as I have successfully practised it in six cases, and was present at a seventh, and so confident am I that this is the only correct mode of treating this affection, that I shall adopt it in every case that may present itself in future.

By reference to the surgical anatomy of the rectum, briefly sketched at the commencement of this paper, the reader can readily judge whether the objections raised against division of the stricture, are based upon the real or presumptive danger either of hemorrhage, or of wounding the peritoneum. Should it be that any thing like troublesome bleeding took place, I know not why it could now be promptly and effectually controlled by pressure, through the full distension of the rectum, either by compressed sponge, lint, or common cotton; should these

* *Precis Elementaire*, tome 3me, p. 559, Montpellier, 1831.

means fail, the injection of some astringent solution will, most likely, prove beneficial; although there are many agents of this class, the following bears the recommendation of great efficacy in arresting the bleeding after the removal of internal hæmorrhoids, and would be equally applicable in that which might possibly result from the division of the stricture. Take one grain of sulphate of iron, and dissolve it in one ounce of water, a small quantity to be injected at a time;* and, lastly the introduction of pieces of ice in the anus and rectum, as I have done in several instances after the extirpation of hæmorrhoidal growths, will effectually arrest the bleeding. I cannot but believe that undue stress has been laid upon the presumed danger of hæmorrhage; and from the result of my cases, this fear has never been present in my mind, and should it in any case occur, I am confident I could control it without danger to the patient, and comparatively little inconvenience to myself.

The second objection, is the wounding of the peritoneum; by reference to the disposition of this membrane, it will be seen that there can be no possibility of implicating it in the two lower portions of the rectum, as we know that it is only in connection with a small part of the anterior surface of the middle portion—the most common seat of stricture—and that it is not at all to be found in the lower third. Between four or five and a half inches, no fears need be entertained of wounding the membrane, even if the case is one admitting of incision, as the knife is only to be carried through the mucous and muscular coats on their posterior surfaces, and then the serous investment can be sufficiently diilated by pressure of the finger, precisely in the same manner as it is accomplished after the division of the ring in strangulated hernia. Even admitting that the peritoneum should be slightly wounded, for it cannot be much except through carelessness or ignorance, and special inflammation be the result, this complication is *generally* amenable to treatment, whereas *none* is available in stricture if it remains unrelieved, and the danger from peritoneal inflammation—directly or indirectly—is almost equal, if not greater, in the treatment of simple dilatation with bougies. It is a little singular that the fear of inflammation is looked upon rather lightly after the operation for strangulated hernia, more particularly when the sac requires to be opened, sometimes to a considerable extent, and from the preceding and subsequent manipulations to return the prolapsed mass, the chances of peritoneal inflammation are increased ten-fold more than in the more simple operation of cutting through a stricture.

The manner in which I perform the operation is as follows:—the patient stoops forward resting his head and hands on the edge of a bed, the feet on the floor with the legs somewhat separated; in this position the nates are elevated to a convenient height for the operator; this posture I consider preferable to the recumbent one, upon the side, as there is no impediment from the bed clothes, and does not require an assistant to keep the thighs apart. The left index finger, well oiled, is gently pushed through the anus till its apex rests on the stricture; a long, narrow, probe-pointed bistoury, held in the right hand, is carefully passed flatwise along the finger through the contracted part, when its edge is turned a little to the right or left of the median line, towards the

* J. P. Vincent, Edinburgh Monthly Journal, March, 1848, p. 41.

sacrum, the left finger pressing upon the back of the knife, forces it through the stricture, about the depth of the blade; the knife is then withdrawn from the stricture, turned on its side, though still retained in the intestine, while the left finger now ascertains the nature and extent of the incision, and the stricture will be found to have greatly given way, and that the small wound has spread out to nearly one inch in width, should there be any undivided bands of mucous or cellular tissue between the edges of the wound, they are to be cut across, when the mucous membrane above and below the strictured part will be felt smooth and on a level, a similar incision is next to be made on the opposite side, and the knife removed; two fingers can now easily pass through the stricture in all directions. Next introduce a piece of compressed sponge—the size of a half dollar piece, to which a stout string is attached, and allowed to hang out of the anus,—in the stricture; give the patient an anodyne to quiet pain and prevent the immediate action of the bowels, and order him to bed. The sponge is to be retained, if possible, for twenty-four hours, when a brisk laxative is administered, which will have the effect of expelling the sponge, and with it the contents of the large intestines, the evacuations are attended with comparatively little pain, the patient complaining more of smarting than any thing else. No second dressing is required as there can be no danger, after twenty-four or thirty hours, of the wound re-uniting by first intention; all that is necessary, is to keep the bowels in a very relaxed condition for three or four days, when the patient may return to his ordinary avocations, cured of a very annoying, and, often dangerous affection. I will now illustrate the foregoing mode of treatment by the notes of seven cases, in which it proved eminently successful.

Case I.—Stricture of the Rectum, after Ulceration; cure.

One morning in February, 1850, when doing duty as Assistant Surgeon to the 4th Regt. United States Infantry, at Plattsburgh Barracks, a “loose fish” of a soldier was brought by a file of the guard to the Hospital, complaining of severe pain in the bowels, and constipation of several days’ duration; as the unfortunate creature was an *habitué* of the Guard-house, and knowing something of his antecedents, I ordered him a dose of a most villanous mixture, composed of “*piera*” and the black draught, with such things as cayenne pepper and scammony for seasoning; this prescription had proved remarkably successful in clearing the Hospital of a number of idlers, and returning them very promptly to duty. In the case of Young, the mixture was administered three times during two days, and though readily swallowed no relief was obtained; my sergeant saw particularly that the doses had been taken. On the morning of the third day, the report was “no amendment;” I now enquired somewhat more closely into the nature of the case, and learnt that the man, in common with a very large number of the soldiers of the American army, had suffered very severely during the Mexican campaign, from a most inveterate and intractable form of diarrhoea, soon changing into dysentery, and which had decimated the ranks more than the balls and bayonets of the “Greasers;” he had been for some months in hospital at Chapultepec, and was on the invalid list on his return home. Part

of his regiment was quartered at the Plattsburgh Barracks, when I was appointed to take the medical charge, and had treated quite a number of the men still suffering from this disease, although Young had not before fallen directly under my notice. I now thought that the poor fellow must be really ill, and, therefore, made an examination *per anum*, knowing full well the different tricks soldiers will be up to, in order either to shirk duty, if not to procure their discharge from the service. I was not a little surprised to find, that though the finger passed with some difficulty through the anus, it soon—at the distance of about three inches—came in contact with a tight resisting ring, through which I could not push the point of the finger. The case had now resolved itself to one of stricture, from the healing of one or more ulcers resulting from chronic diarrhoea. Looking over the surgical appliances of the Hospital, I found nothing in the shape of rectum bougies, and unable to wait a requisition upon the medical purveyor, I saw myself compelled to follow a plan of treatment different from that laid down in the books, and as the man was evidently failing, I did not hesitate to perform the following operation:—Placing him in a stooping position, his head and hands resting on his bunk, I introduced the left index finger, well oiled, into the rectum up to the stricture, and then carefully passed flatwise a probe-pointed bistoury; this was pushed through the ring of the stricture, and a cut made to the left of the median line, towards the sacrum, the finger now ascertained that the strictured part had been completely divided through, without implicating anything else than the mucous and a portion of the muscular coat, as the evenness of the lining membrane, on either side of the stricture plainly indicated; the finger could readily be passed through the divided stricture, and a little pressure imparted the sensation of tearing, or giving way, just as is experienced in the operation of hernia. However, fearing that through some means re-union might possibly take place, and the stricture be closer than ever, I made a similar cut upon the opposite side, when the knife was withdrawn, and two fingers could easily be introduced in the bowel without force, and very little pain. There was not a teaspoonful of blood lost; a piece of compressed sponge, secured by a thread, was pushed into the stricture, an anodyne administered, and the patient ordered to bed. The following morning a large dose of castor oil was ordered, the sponge and an immense quantity of fæces were discharged, and in four days, he was reported fit for duty. He continued in the service till the expiration of his enlistment—two years—and never had a return of his old complaint. I look upon this case as one of perfect cure; and the plan of treatment adopted suggested itself from the want of the ordinary instruments usually recommended in such cases.

Case II.—Stricture of the Rectum complicated with Hæmorrhoids; cure.

January 10, 1853, J. Sampson, of Alburgh, Vermont, requested my advice for hæmorrhoids that had, at times, during two years, troubled him very much; at that period he began to complain of more or less pain when at stool, had consulted some physicians, and taken any quantity of patent pills for the purpose of regulating the bowels, but all to no purpose, when small tumors were protruded after

every evacuation with great straining and increase of all the symptoms. Being now fully satisfied that he was suffering from piles, he resigned himself to his fate, under the impression that there could be no cure. It was under these circumstances that he called at my surgery in relation to a daughter who had been for some months in ill-health, and incidentally alluded to his own case; answers followed questions, and an examination proposed to which he immediately acceded, being perfectly willing to submit to anything that might offer the least prospect, if not of cure, at least of relief. There were two or three small hæmorrhoidal tumours around the verge of the anus, and the finger could only be made to pass through the external sphincter with some difficulty, when, within two inches above it, I detected the existence of a stricture. The case was now plain, and I told the patient that the chances of cure were decidedly in his favour, and that all the suffering arose most probably from the stricture than from the piles. He readily acquiesced to all I proposed; and the operation was performed the following day, in the same manner and with the same after-treatment as in the first case. He returned home on the third day, the bowels having been freely and copiously emptied by strong laxatives. In two months he reported himself free from trouble in the process of defecation, and rid of his old complaint the piles, the one operation, had cured both. Four years after he was still in the enjoyment of perfect health.

This case is rather interesting, as no doubt the development and gradual increase of the stricture, prevented the free return of the blood, and consequently favoring the engorgement of the hæmorrhoidal veins, was the direct cause of the hæmorrhoids themselves, as they immediately began to decrease the moment the stricture had been divided and consequently the pressure removed. Since the occurrence of this case, when consulted for hæmorrhoidal affections, particularly where the symptoms are well marked, I generally call for an examination, being convinced that stricture *may* occasionally not only be complicated with hæmorrhoids, but that it may, in some cases, be the direct cause of their development.

Case III.—Double Stricture of the rectum mistaken and treated for disease of the womb; cure.

Mrs. H. of Champlain, New York, thirty-seven years of age, the mother of three children, the youngest nine years old, had been in bad health for some time past, when she called upon me in Nov. 1853. She was of a fine *figure*, and of very sedentary habits; near three years before, she remarked an unusual degree of straining at stool, with some trifling pain, though she was not generally inclined to costiveness; the pain and straining kept gradually increasing till they had become almost unbearable, and she was rather pleased than otherwise that the bowels were costive, as she seldom had more than one or two calls to the water closet during the week. She complained of pain in the back and thighs; considerable difficulty in micturition, and a more or less constant bearing down sensation, aggravated at, and immediately after, an evacuation; the menstrual function was normal as to time and quantity; occasional slight leucorrhœal discharge, and some pain during sexual congress. She had tried various plans of treatment without any amendment, and considered herself, as she had been told

by a medical man—however *without* an examination—labouring under some disease of the womb, for which she had submitted to empirical and other treatment. Having become acquainted with the foregoing particulars, I proposed a vaginal examination to which she consented after a little hesitation; I found nothing abnormal either in the vagina or in the position and configuration of the womb; although I distinctly felt some hardness of the recto-vaginal septum, like a portion of hardened *faeces* retained in the rectum. I next made a rectal examination, and at once discovered the cause of the mischief in the shape of a stricture. She was now apprised of the nature of her ailment, and strong hopes entertained of a perfect cure. The operation was performed a few days after; and the finger having been pushed through the stricture to ascertain if every thing was clear, came in contact, about one inch beyond, with a second stricture, which was also divided, sponge dressing, &c., and she returned home on the fifth day. I had the pleasure of seeing this lady several times afterwards, and she had never complained either of trouble in the womb, or when attending to the evacuation of the bowels. She was living and well in the month of May, 1858, when I left Plattsburgh for Montreal.

There are many important points connected with the foregoing case—the consideration of which I cannot now enter upon—more particularly the sympathetic irritation of the womb which had been looked upon as the principal disease, and treated, necessarily, without success.

Case IV.—Stricture of the Rectum and fistula-in-ano in a phthisical subject; cure of the stricture.

Mr. H. Chatterton, of Reekmantown, New York, aged about 40 years, a strong stout man, though of a confirmed phthisical habit, consulted me in the fall of 1852, for a fistulous opening near the anus, from which he had suffered, more or less, during four years; pain in defecation, disturbed action of the bowels and latterly derangement of the digestive organs, etc.; there had always been a discharge from the opening, so profuse, at times, that he could not keep himself in a cleanly or comfortable condition. On examination I saw a large, wide external opening to the left of the anus; the finger being pressed up the rectum came, at about three inches, in contact with a very tight stricture; about one quarter of an inch below it, was the inner opening of the fistula, and this diagnosis was corroborated by the passage of a probe. I now told my patient that his sufferings resulted more from the stricture than from the fistula which, although troublesome and annoying, was of benefit to him on account of his lung affection. He readily acquiesced in my decision, and the operation was performed. In one week he was discharged, when he wished me to operate for the fistula which I preemptorily refused to do. He died some nine months after of phthisis, but I could not obtain permission to examine the body.

It may, to the junior practitioner, appear rather singular that after having succeeded so well with the stricture, I would not undertake the more simple operation for the cure of the fistula; this I could not do, and surgical or any other kind of interference would not only not have cured the local disease, but would have hastened the full development of the tubercular affection. Upon

this point I will quote the following extracts, the first from Sir Astley Cooper and the second from Sir Benjamin C. Brodie;—"The surgeon often brings *dis-credit* upon himself by operating for fistula-in-ano, the last stage of phthisis, and when it is *impossible* that the disease can be *cured*, therefore that death which is the result of the pulmonary disease is *falsely* attributed to the *fistula-in-ano*."

"In those cases in which a fistula-in-ano occurs in connection with some organic disease of the lungs or liver, I advise you *never* to undertake the *cure* of the fistula. No good can arise from an operation under these circumstances; but if you perform it, one of two things will happen—either the sinus, although laid open, will never heal; or, otherwise, it will heal as usual, and the visceral disease will make more rapid progress afterwards, and the patient will die *sooner* than he would have done if he had *not fallen* into your hands."

Case V.—Simple Stricture of the Rectum; cure.

M. J., Esq., surgeon dentist of this city, a gentleman of high mental acquirements and good sound judgment, consulted me in the summer of 1859, for a long standing trouble about the anus. The bowels were always costive, and their motions attended with such increasing and acute sufferings, that for months he had delayed as long as possible attending to the calls of nature, and latterly had only been able to secure anything like a bearable evacuation through the means of repeated injections, for the purpose of diluting the fæces. He had been under the care of some of the medical men of this city, who had recommended various drastic and laxative preparations to overcome the costive habit, and to remove the supposed irritability of the rectum and anus, had employed suppositories of opium and belladonna. All these measures were, however, of no avail, and the disease was constantly increasing, when discouraged and almost wearied of a suffering existence, and thinking something might be gained by a change of medical attendant, he called upon me. I proposed an examination to which he readily assented. With the greatest difficulty, and most excruciating pain, I succeeded in passing the finger through the anus, when at a distance of three and a half inches, I discovered a tight and very close stricture, with an opening the size of a crow-quill, which very readily accounted for the very small size and spiral form of the evacuations. I now explained to the doctor the nature of his disease, and how it should be remedied; he at once appreciated my views, and readily agreed to the plan of treatment proposed. The following day the operation was performed in the usual manner, and the sponge introduced. At my call in the evening he told me that he had experienced much pain from the sponge for a couple of hours, when suddenly he felt relieved; I examined, the finger passing with more ease through the external sphincter, when the sponge was found to have passed through the stricture and out of reach, another piece was introduced, and an anodyne ordered. The next morning he reported having slept pretty well, was nearly free from pain; and that in the course of the night the desire to relieve the bowels became so urgent, that the two pieces of sponge with a large quantity of fæces were discharged. The after-treatment was as detailed in the other cases; and in the course of a week he was enabled

to attend in his operating room. The doctor has since continued in perfect health, and is as satisfied as I am of the success and little trouble attending the use of the knife in the treatment of stricture.

Case VI.—Simple Stricture of the Rectum; cure.

Mrs. J., of Lagachetiere Street, about 36 years of age, the mother of two children, had for some four years consulted several practitioners for a great difficulty in evacuating the bowels, great pain for some hours after, and a constant state of constipation that had resisted all the means employed. None of her attendants had ever proposed an examination. In January last she called upon my friend and former fellow-student, Dr. G. BEAUDRIAU, of Craig Street—a most worthy and capable practitioner, but unfortunately totally blind from amaurosis—who, after listening to her history, requested an examination, and although deprived of his sight, still in the possession of a highly educated finger, he at once discovered the existence of a stricture. Being unable to operate, he requested my assistance; I satisfied myself of the correctness of his diagnosis, and proposed the operation to which the patient assented. After the division of the strictured part had been effected, I discovered that I had forgotten the sponge; it was replaced by long narrow strips of old linen well saturated in olive oil, and crowded in the rectum; anodyne, &c. The next day the plugging had been expelled with the contents of the bowels: another examination revealed that the stricture was entirely removed, three fingers being readily passed, and without pain, through the intestine. A third visit, and she was discharged cured. I have seen her since, and she pronounces herself as well as ever.

Case VII.—Simple Stricture of the Rectum; cure.

This case occurred in the person of Mrs. L., of St. Lewis Street, a woman of good physical development and of excellent constitutional health. She had been for some time suffering with symptoms of stricture, when she called upon my friend Dr. J.—the subject of my fifth case—for the purpose of having something done for her teeth; she incidentally mentioned the peculiarities of her case, and as they were nearly identical with those under which he had so long suffered, he detailed his experience and referred her to me. As she was a patient of my brother's the case passed into his hands. I accompanied him to her residence, the operation was performed, and attended with the same success. It is now nearly two years since, and she does not complain of her former trouble.

The reader has now the details of the cases before him, and if I can be instrumental in affording relief but to one poor sufferer in the hands of others, I shall consider myself amply repaid for the time and the little trouble devoted to the preparation of this dissertation.

Montreal, 27½ Little St. James Street,
15th April, 1861.

REVIEW DEPARTMENT.

ART. XXXVIII.—*The illustrated horse-doctor, being an accurate and detailed account of the various diseases to which the equine race are subjected, together with the latest mode of treatment, and all the requisite prescriptions written in plain English.* By Edward Mayhew, M.R.C.V.S., New York, D. Appleton & Co.: Montreal, B. Dawson & Son.

The wide-spread reputation of Mr. Mayhew in veterinary science and practice induced the London publishers of the present volume to select him for the author of a work on the diseases of the horse, and their treatment. A work of this kind was much needed. There were but few, very few, works of any real importance on this subject, and Dick's manual of veterinary surgery probably stood the highest in public estimation. The London publishers have proved singularly fortunate in having secured the services of Mr. Mayhew, as, independently of his scientific reputation, he was endowed with the power of using his pencil, the consequence having been, that while all that appertains to the horse is most graphically described, the appearances or alterations of feature induced by disease are faithfully portrayed in appropriate and accurate engravings, or woodcuts copied by the engraver from drawings by the author. This much enhances the value of the publication, because we feel assured there are many into whose hands this publication will fall, who will be most materially assisted in their studies by these beautiful and characteristic representations or engravings.

Looking into the scientific merits of the work, we cannot but notice a very high degree of scientific accuracy. The diseases are treated of, with reference to the organ attacked; and accordingly, although the volume is divided into fifteen chapters, ten of these are devoted to the specific diseases in question; thus are presented to us:—1 diseases of the brain and nervous system, 2 diseases of the eye, 3 those of the mouth, 4 those of the nostrils, 5 those of the throat, 6 those of the chest and its contents, 7 the stomach, liver, &c., 8 the abdomen, 9 the urinary organs, and 10 the skin. Chapter 11 treats of specific diseases, such as broken-wind, strangles, glanders, &c., &c. Chapter 12 is devoted to the limbs, their accidents and diseases. Chapter 13 is devoted to the feet, their accidents and diseases. Chapter 14 to injuries generally, and the last chapter (15) to the ordinary operations on the living animal.

Of all the works on veterinary science and practice which we have seen, the volume before us most emphatically has the preeminence. We know of none to compare with it in the amount of information as regards the diseases of the horse which it imparts, nor the illustrations with which it abounds. It is a volume which should be in the hands of every man who owns a horse, but especially in the hands of every medical practitioner who is obliged to keep one. The latter will there find a mode of treatment enjoined, far from empirical, and in perceiving this, will recognize the scientific attainments of the author, and that he has executed a task well worthy of his reputation. We strongly advise our medical brethren to obtain this volume, feeling assured that it will serve them in the time

of need. So much is a gentleman generally at the disposal of his groom that the dictum of the latter has been generally looked upon as something not to be questioned. In the work before us every educated owner of a horse can comprehend, at least to a certain extent, its principal diseases, and exert thus a controlling power over the remedies which it may be designed to administer. We most cordially commend this work to our medical brethren scattered through the Provinces, as a volume which will render them most important service in their time of direct need, when no other person whose judgment is worth having is to be obtained.

ART. XL.—*On Diphtheria, its nature and treatment, with an account of its prevalence in various countries.* By Daniel Denison Slade, M.D., being the dissertation to which the Fiske Fund prize was awarded, July 11, 1860. Philadelphia, Blanchard & Lea: Montreal, B. Dawson & Son. 8vo., pp. 85.

Dr. Fiske, a former President of the Rhode Island Medical Society during the years 1823–24, dying during the latter year, bequeathed to the Society a sufficient sum amounting to \$2,000, the interest of which was to be expended in premiums for essays on subjects selected for competition. “The first premium of forty dollars was awarded, June 27, 1836, since which time a large number of valuable dissertations have been laid before the profession through the instrumentality of Dr. Fiske’s well-directed munificence. By the judicious management of the trustees, the fund has gradually increased, and they are now able to offer two annual prizes of one hundred dollars each.”

The brochure before us obtained the prize last year, having been sent in for the purpose; and on examining its pages, we cannot but think it eminently deserved it. It completely exhausts the subject, “Diphtheria,” on which it treats, and without pretending to the least originality, it is nevertheless the best treatise or monograph on the subject which we possess.

Since its publication *in extenso* in the American Journal of the Medical Sciences, free extracts have been taken from it by the Medical press generally, and we have ourselves endorsed its merits by having transferred to our pages portions of the work. The little volume is eminently worthy of a niche in every medical library.

PERISCOPIC DEPARTMENT.

CHEMISTRY.

PARAFFIN FOR COATING GLASS STOPPERS FOR BOTTLES CONTAINING CAUSTIC ALKALIES.

It is a well known fact, that caustic alkalies, when kept in ground glass stoppered bottles, act on the ground surface of the glass, thereby frequently fixing the stopper so firmly in the bottle that it is impossible to extract it even by application of heat, without breaking the bottle. As a remedy for this annoyance Klinkowstroem recommends the appli-

cation of a little paraffin to the ground surface [of the stopper, whereby, the paraffin not being acted upon by alkalies, the stopper will remain loose.—*Wittst. Vierteljahresschr.—Jour. and Trans. Maryland College of Pharmacy.*

GUN-COTTON.

The most simple method of preparing this substance consists in immersing, for a few seconds, well carded cotton in a mixture of equal parts, by volume, of sulphuric acid (the commercial oil of vitriol) of the specific gravity 1.845, and nitric acid of the specific gravity 1.500. The cotton, when well saturated, is to be removed, and after being squeezed to expel as much as possible of the excess of adhering acid, well washed in clean cold water. As soon as the water no longer reddens litmus paper the washing may be considered sufficient. The gun-cotton thus prepared is to be cautiously dried at a heat not exceeding 212°;—it is safer to dry at about 150°. The cotton prepared by this means explodes well. A formula for making a very soluble cotton for photographic collodion will be given in the Dictionary of Photographic Chemicals now publishing in these pages.—*Chemist and Druggist.*

MIDWIFERY.

A CASE IN WHICH PORTIONS OF A FÆTUS MADE THEIR WAY FROM THE UTERUS, THROUGH THE ABDOMINAL WALLS BY ULCERATIVE PROCESS.—PATIENT RECOVERED.

By DESAUSSURE FORD, M. D., Demonstrator of Anatomy, &c., in Medical College of Georgia.

Mrs. H——, widow, aged 35 years, stated she had been delivered of three children—one still living, the other died of trismus nascentium—with a third child had been pregnant about five and a half months, up to January, 1860, when she aborted, the presentation a footling; the trunk, superior and inferior limbs protruding beyond the vulva, the head remaining confined tightly by the contractions—which must have been anomalous—of the os tinæ. Fearing detection, (for her pregnancy was the result of criminal intercourse) she cut off that which was hanging from her, when to use her own language, the head went back. She supposed the fœtus to have been dead about nine days. When questioned, she denied that there was any bleeding, or other discharge at the time, and could give no account of the cord, or placenta.

April 18th.—Four months after this most strange and unnatural occurrence, Mrs. H—— was admitted into the Augusta City Hospital, with a fistulous opening immediately below the umbilicus, which was discharging, very freely, a dark yellow and offensive matter, undoubtedly partly fœcal which could be accounted for after the extraction of the bones. She continued in this state until July 25th, when I took charge of the Hospital, discovering the bones of a fetal head protruding through this opening, then about two inches in diameter. In receiving a report—not a detailed one—from the attendant physician before my service, I gathered that she was affected with chronic constipation, which was at first relieved by enemata and cathartics, which latter—castor oil was generally used—he thought could be detected in the secretions from the fistulous opening.

At first I supposed this a case of extra-uterine fœtation, indeed the opinion was unsettled, until the examination had been made, with the bones extracted. Mrs. H—— was in a deplorable and emaciated state, a condition inviting prompt relief by surgical operation, which I performed on the 27th. It was not necessary for an incision of the walls of the abdomen, but bone after bone—the soft parts surrounding them having been disorganized—was extracted by a rotary traction with a pair of strong forceps, which

bones were the following:—two parietal; two temporal, without petrous portion attached; one petrous portion; one malleus; one tympanic bone; sphenoid; one malar; occipital; frontal, in two pieces; one scapula; radius and ulna, with phalanges and metacarpal bones of one finger.

These bones are, in development, as near the size of a six months fœtus as could be determined, which fact substantiates her story, that she had been pregnant about six months. After these bones were extracted, a digital examination disclosed a large cavity, answering to the internal form of the uterus, which cavity, in the mesial line, had an outlet like the form and position of the passage through the cervix. This large cavity communicated, by an extensive opening, with the ascending colon, the finger readily tracing the interior of the intestine, above and below, as far as it could reach.

The 28th day after the operation, prescribed:

R.—Vallet's Proto. Carb. Ferri, ζj
Water $\zeta viii$ —M.

Give a teaspoonful three times a day.

Apply to the wound cloths wet with a solution of chloride soda. Has taken ζj castor oil this morning—no effect. Fæcal matter discharging through opening.

29th.—This morning passed a living worm, 4 inches long, through fistulous opening, with large quantities of fæcal matter. Had an action through rectum yesterday. Ordered an enema of warm salt and water.

30th.—Ordered daily enemata of warm water every morning, an hour after breakfast. Fæcal matter discharging.

31st.—Fæcal matter still discharging, though much diminished in quantity. Strength better.

August 2d.—Passed a worm through the opening. Had an action through rectum, after enema. Ordered, instead of enema in the morning, castor oil ζj and spts. turpentine gtt. v.

August 4th.—Fæcal matter still discharging. Continued enemata. Strength much improved.

August 6th.—Continue treatment. Condition some better. Left the city and record was not kept until

August 14th.—Is having natural operations through the rectum, with very little discharge from opening. Strength and general condition improved.

August 18th.—Had an attack of gastralgia. Ordered gtt. xxx tinct. opii. and mustard over epigastrium. Continued to improve daily, having natural evacuations through rectum, with fistulous opening very nearly healed, and no inconveniences from discharges. Mrs. H—— left the Hospital September 7th, two months and ten days after the extraction of the bones.

Remarks.—The fact that a fœtus has escaped through the abdominal walls, by ulceration, and the patient recovering, indeed impregnation existing, after such an accident, is by no means novel. (See report of a very remarkable case of Extra-Uterine foetation in Keating's edition of Ramsbotham's System of Obstetrics, page 580.) In this case it will be noted that a fistulous opening was made, by ulceration, into some portion of the intestinal tube, and still the patient survived, but exactly the counterpart of the case of Mrs. H——. I cannot find, in which the *uterus itself* retaining a part of a fœtus, that by ulcerating through its walls, became extracted as detailed.

The fiendish criminality, and unnaturalness of the act of cutting off a fœtus, on the part of the mother, and the apparent discrepancy of her account, together with some of the bones extracted, viz: a radius, ulna, scapula, phalanges, would seem to invalidate the opinion formed of the case; not so, however, when we consider all the circumstances, especially the fright, solicitude of the mother in any attempt however enormous, to avoid detection. The fact of these bones of the arm having been found will explain, in a measure, the difficulty of the delivery, in that a footling presentation, *unless* one of the

arms remains impacted with the head, could have been easily delivered, if the head was not abnormally enlarged, her statement, the inferior and superior limbs and trunk hanging out, to the contrary notwithstanding. The absence of the presence of a humerus; a second malar bone; a second petrous portion of temporal bone; a second tympanic bone, &c., explains a statement she made, that some small bones had come out of the fistulous orifice, from time to time. Why, then, the number of these bones indefinite; might not bones have escaped, which would show the case one of extra-uterine foetation? Because by examination, after the remaining bones had been extracted, neither the opening into the colon, nor the passage through the cervix uteri, could have been confounded with the openings through the fallopian tubes, their size, form, position excluding the possibility of such an error.

The time which elapsed after she aborted, before the first appearance of the opening in the abdomen, could not be determined, and the exact condition of Mrs. H—— from the time she severed the body of the foetus from the head, to the time she was admitted into the Hospital is unknown, the probability, however, is that the detritus of the foetus passed out per vaginam, and the uterus contracting down upon the bones of the head caused them to ulcerate their way through its walls. Adhesive inflammation was set up, which prevented the escape of the discharge into the peritoneal cavity, the exudation of plastic lymph, forming a distinct cavity, by agglutinating the edges of the uterus with those of the abdominal walls. The fistulous opening into the colon was, most probably, formed by the bones cutting through its walls. The exudations of plastic lymph, as in the external opening, formed adhesions similar to an artificial anus. This internal opening, so to speak, had closed entirely before Mrs. H—— left the Hospital, as evidenced by the absence of any faecal discharge.

It is unfortunate the patient did not remain in the Hospital until the perfect closure of the opening through the abdominal walls had been effected; it was, however, granulating healthily, then about $\frac{1}{4}$ inch in diameter; this fact, with her generally improved condition, warrants the opinion of recovery, the principal difficulty (the opening into the intestinal canal) having already been perfectly closed.

Mrs. H—— was much agitated at the probability of legal investigation, suggested by some of her female enemies, who, hearing the horrible enormity of her mode of delivery, seemed determined to torture the unfortunate wretch by exposure. With this anticipation hanging over her, she left the city by stealth. Means were employed to follow her, but with no success.—*Boston Med. and Surg. Journal.*

THE UTERINE DOUCHE IN THE TREATMENT OF GALACTORRHŒA.

By Dr. ABEGG.

Dr. Abegg, referring to the influence of excitation of the breasts upon the uterus, conjectures that a corresponding influence may be exerted by excitation in the opposite direction—namely, from uterus to breasts. He has applied his idea to the arrest of galactorrhœa. A woman, aged thirty-one, always in good health, was delivered of her first child two years before, and had suckled it until its death when nine weeks old. On the 28th October, 1854, she was again delivered of a weakly child that died on the 1st of December following. She had weaned the child on the 15th November on account of sore nipples. Galactorrhœa continued, in spite of iodine, iron, and compressive bandages, until the middle of January. Menstruation had not returned, but there was profuse leucorrhœa. On the 3rd February the warm douche was applied for 15", and repeated until the 14th; on the 15th a slight discharge of blood appeared from the uterus, and lasted fourteen days. During this time the secretion of milk gradually disappeared. Menstruation became re-established. Dr. Abegg relates a second case in which the douche seemed equally efficacious. [It deserves to be considered whether the anxiety generally evinced to suppress the milk after the premature loss of the child is rational.

There are good physiological reasons for permitting the breasts to continue in functional activity if so disposed, sparing the ovarian function, promoting the involution of the uterus, and postponing impregnation. It is certainly not wise hastily to interfere with the course of nature in such cases. When necessary to interfere, the uterine douche will probably be a valuable remedy.—REP.]—*Brit. and For Med. Ch. Rev.*

CYSTIC OUTGROWTHS OF THE VAGINA.

By WALTER CHANNING, M.D.

In the Journal of April 11th, last, J. F. Noyes of Waterville, Maine, communicated a case of cystic outgrowth of the vagina. It was soft and elastic, distending the vagina, and protruding from it. Sixteen years ago, during pregnancy, the patient discovered a small outgrowth within and on the front of the vagina. Since delivery it had rapidly increased, producing much suffering and anxiety. It had no connection with bladder or rectum. It was freely opened. The discharge was glairy, resembling in consistency and color thick honey. The cyst was dissected out, and the edges of the wound were secured with silver sutures. Three weeks after, the patient was well, "and considers now the organ in a normal condition." The date of this opinion of Mrs. S. is not given.

Two or three weeks after reading this case, my friend, Dr. J. Mason Warren, told me he had a case of cystic vaginal outgrowth for which he should soon operate, and kindly asked me to be present. Mrs. ——— was four months pregnant. The outgrowth filled the vagina and protruded out of it. It was elastic, smooth, and resembling in color that of the vagina. It was always external when the patient was erect, occasioning much annoyance during walking, from its size, and the weight and friction of the dress. It was neither vesico nor recto-cele.

An incision through the vaginal envelope of the cyst was made the whole of its external length. It was then dissected carefully and thoroughly out. The contained fluid very exactly resembled that in Dr. Noyes's case. No sutures were employed; the protruded vagina was put into its place, and a compress applied to prevent its protrusion. In a week, Mrs. ——— was judged sufficiently well to return to her friends in Canada.

Soon after this case, Mrs. ———, aged 26, called on me with a letter from my friend Dr. Stevens, of Stoneham, asking me to examine her case and to report to him my opinion concerning it. It was stated that Mrs. ——— was in the last week of the eighth month of pregnancy.

Upon examination, I found a large cyst protruding from the external organs. It was bi-lobed, the right lobe was much larger than the left. The whole surface was red, that of the small lobe the most so. It was tender—sore to the touch—which state could be readily accounted for by the weight and constant friction of the dress. In the horizontal position the cyst was much less in size than when Mrs. ——— was up and about. Upon further inquiry, I learned that about six months previous to the time of her call, when, about two months pregnant, Mrs. ——— had run some distance very rapidly, and soon after began to feel uneasiness in the vagina. This increased, and at length an outgrowth was felt, and having soon protruded, grew rapidly. Her general health was good. The outgrowth was reduced. A compress and T bandage were applied. Mrs. ——— returned home, with my opinion in a letter to Dr. Stevens, and a wish expressed to see her with him, whenever he would inform me of that being agreeable to him. In a few days, he desired me to meet him in consultation.

Upon reaching the address a meeting was arranged, and it was agreed to open the cyst freely, and discharge its contents, and to wait till after her delivery before doing more. At this time labor was looked for in two or three weeks. A long incision was made through the walls of the cyst. The discharge was a fluid *exactly resembling pure water*, but was found to be distinctly ropy after further examination. The largest lobe

of the cyst being emptied, the small one remained distended as before. This was freely opened, the contents exactly resembling what came from the first. The incisions were left open; and a compress and T bandage to prevent the protrusion of the flaccid walls of the cyst, were applied.

After the operation a finger was passed into the rectum, and another into the cyst. The whole length of the finger was firmly pressed into it, before its rectal termination was reached; and I was much surprised, when the ends of the fingers were brought together, at finding how thin was the interposed partition; it seemed not thicker than paper, the interstitial tissue being quite absorbed.

I do not know how it has been with those with whom I began medical practice—and of whom only two are now living—in regard to cystic outgrowths of the vagina; for myself I can say, that these three cases are the only ones of which I have any knowledge as occurring amongst us. I have certainly frequently seen diseases of the vagina; but have no memory of cystic outgrowths before these. A question may arise of diagnosis, how these cysts differ from others of the same organs.

Pelvic Abscess.—These at times are very large—fill the vagina. But I have no instance in which they have appeared *externally*. On the contrary, the largest of them occupy most frequently the upper part of the pelvis; and I have met with cases in which most of the abscess has been above the brim. In one of the worst cases, and which was long under my care, the abscess broke, so to speak, into the bladder, and it was long before pus ceased to appear in the urine. The most distress in this case, and for much time in it, was in the bladder—its region and function. Mrs. ——— has completely recovered. In a case which I saw with Professor Simpson, of Edinburgh, the abscess was very large, and filled much of the pelvis. Prof. S. opened it. The discharge was very large, dark-colored—nearly black, and of the most disagreeable odor, obviously getting a part of its character by endosmose. The symptoms aid diagnosis. In pelvic abscess these are very severe; and constitutional conditions are very gravely disturbed. The pain is very severe; the sleep is broken; appetite fails; emaciation I have seen as complete as in phthisis. Danger of life is imminent. The abscess *never* protrudes from the vagina.

There is another form of *pelvic abscess* which may not be so readily distinguished from our cystic ones. Pain and burning in the vagina, dysuria, and embarrassment on motion, with various constitutional disturbances, attend this disease. Upon examination, local swelling, at times quite small and not very well defined, is discovered. After a time it breaks, and pus, with blood, is discharged. The opening closes, and a new abscess of the same character is formed. At times a sinus is made, and a purulent discharge is established. An obstructed follicle may be a cause of these tumors, and inflammation occurs, and forms, and establishes a chronic disease. Now there is no difficulty in distinguishing these from the cystic outgrowths under consideration. They never protrude from the vagina, are small, and the fluid contained differs wholly from what exists in the other disease.

From dislocation of the rectum and urinary bladder they are readily distinguished. By digital examination from the first, and by the catheter from the last.

Dr. ——— called, a few days since, to get a uterine supporter. He selected one. I asked of the case.

Miss ——— for a long time had suffered gravely by disease in or about the pelvis. Much obscurity in the diagnosis. The wound was found prolapsed. Of late, a new symptom—vomiting. Examination discovered the prolapsus. The womb was reduced, and *vomiting immediately ceased*. As long as the finger supported it, no vomiting; nausea and vomiting when the support was withdrawn. Within a few months, a new symptom—sudden and copious discharge of pus from the rectum, with immediate relief of pain, and of vomiting. These symptoms returned after various intervals, viz., pain, and of vomiting and purulent discharges. Dr. ——— had been consulted, but no dis-

covery was made of the seat of the abscess, or the outlet of the pus. Was it abscess of the wound itself? I said no. What then? Pelvic abscess.

Dr ——— reported to me a case resembling the above in some of its symptoms; viz., exquisite pain in the left iliac, with swelling, and excessive heat; these, and absolute inability to use the left limb at the time, and slow recovery of the power afterwards. Copious, liquid, easy dejections suddenly occurred. Costiveness had not been a symptom. Immediate relief followed. In this case, so grave was the constitutional disturbance, that recovery was despaired of. The dejections were not examined. Were they not purulent?

Ovarian Dropsy.—In some, but very rare cases of this disease, the cyst presses down into the pelvis, forming a fluctuating swelling. A case of this kind came under my notice.

Mrs. ——— was surprised by a copious discharge of a colorless glairy fluid from the rectum, and occurring at distinct intervals. She was desired to collect some of it for inspection. At my next visit she handed me a glass tumbler full of this liquid. It resembled exactly the white of an egg, and had an odor not unlike that substance. In appearance, it exactly resembled that of the third case above reported. There was not the least fecal smell in it. The discharge continued. The ovarian outgrowth grew daily less, and at length ceased. Perfect recovery followed.

It has been suggested, or the question asked, if an opening by the rectum or through the *cul de sac* might not be made in this disease, especially where there is pelvic or rectal enlargement discovered. It is a well-known fact that the bursting of the ovarian sac into the abdomen by violence, falls, or great and sudden exertion, has been followed by rapid recovery. I attended a case of labor, in the subject of which ovarian dropsy had long existed, and for which tapping was to be done. Mrs. ———, while lifting a heavy weight—a washtub, felt something suddenly give way within her. The swelling rapidly subsided, good health occurred, and she became pregnant. She passed through labor and the puerperal state without accident. Many such cases are on record.

The contents of these vaginal cysts differ, and all are unlike those of vaginal, or, more correctly, pelvic abscesses. Their contents are not purulent, and this suffices to show that they are not the products of purulent inflammation. What is the precise or anatomical character of the secreting tissue in this disease, I know not. It is a product of disease, but which obviously is different, or is modified, in different instances.—*Boston Med. and Surg. Journal.*

TREATMENT OF UTERINE INFLAMMATION BY INJECTIONS, EXTERNAL APPLICATIONS, ETC.

By EDW. J. TILT, M.D., London.

Injections are of great value in inflammations of the womb, but require care, in order that their full effect may be obtained. As they are mere lotions to internal organs, the tube of a large syringe, say one or two pints, should be introduced as far as possible without giving pain, in order that the whole lower part of the womb and entire vagina may be acted on. The patient should be in a reclining position, on a hard sofa and the liquid injected, and reinjected for at least five minutes; the temperature of the fluid should be warm or cold in the acute stage, afterward cold. Emollient injections range thus: water, milk and water, linseed tea, solutions of borax, chlorate of potassa, acetate of lead, alum, alum and zinc, zinc alone, decoctions of oak bark, etc. One drachm of the saline compound to a pint of water, and only ten to twenty grains of sulphate of zinc when used alone. Emollients may be used three times a day; cooling twice; antiphlogistics as alum, only once; astringents two or three times. One drachm of laudanum may be added to each injection when pain is felt. After cure, continue for awhile. Generally, it is best to cease during the menstrual period; but if there is obstinate ulceration, or vaginitis, the medication may be continued. If internal metritis protracts the flow

after it has lasted the usual time, check it by alum and zinc, first tepid and then cold, two three times a day. Alum injections too long continued, as preventive of uterine inflammation, have produced irritable subacute inflammation of the os; hence, when astringents are long required, as to enable a relaxed vagina to support the womb, use on all tertian days alum and zinc, and acetate of lead. A vagina suppository, to be used at night, may be made with ten grains of acetate of lead and one or two of extract of belladonna. After touching an inflamed cervix with nitrate of silver, it may be *dressed* by pressing up through the speculum one or two tablespoonfuls of starch or rice powder. Externally, in acute inflammations, linseed meal poultices, sprinkled freely with laudanum, may be applied every two hours. Or, half an ounce of an ointment of two drachms of extract of belladonna to an ounce of mercurial ointment may be smeared over the abdomen, and covered with a poultice, both renewed every two hours, while calomel and opium are given internally. Flannels wrung out of hot water, sprinkled with laudanum, and covered with oil-silk, will suit some patients better; or well-heated bags of salt or bran. As inflammation abates, reserve these for the night, or camphorated oil may be rubbed in twice a day and covered with cotton wool. In the chronic stage, foment with hot water, and then apply the cold water compress to the abdomen, covered with oil-silk, renewed when it becomes warm.

Baths.—In acute peritonitis, the moving necessary for a warm bath does more harm than good; but this is of great value after the subsidence of the acute symptoms. In acute internal metritis, the hip-bath at 96° or 98°, for three quarters of an hour each night before bedtime, quiets pain better than opium. This is useful also in chronic cases of acute affections of the cervix. The whole bath is also invaluable. In all chronic inflammatory conditions of the body and neck of the womb, cold hip-baths are useful, taken immediately on getting out of bed, remaining in two or three minutes, so as to have the benefit of the reaction, without which it is dangerous. In winter the temperature should be 60°. When cold hip or shower baths cannot be borne, sponge alternately with very hot water and water at 60°.

He protests against the use of mercury blindly in obscure cases, and only employs it in syphilitic cases. In hard hypertrophy of the cervix, he prefers iodine and its preparations, both locally and internally.

Counter-irritants.—In chronic affections, he produces pustulation of the skin by croton oil or tartar emetic, or cauterizes with the metallic cautery. For sickness attending uterine disease, he applies an issue to the pit of the stomach, curing when all else fails. In catarrhal affections of the cervix, he has found direct blistering useful; rubbing the neck of the womb, two or three times with a brush dipped in a concentrated solution of cantharides in sulphuric ether, mixed with the ordinary solution of gutta percha in chloroform, in the proportion of two parts of the former to one of the latter.

Dietetics.—In acute attacks, the horizontal position is imperatively required. But in the chronic form, gentle exercise is requisite, gradually increased.

Sedatives.—On this head, he has arrived at these conclusions: an occasional large opiate by the mouth may be useful, but its frequent repetition obscures the case, constipates, and causes opium eating. Sedatives are best administered by the rectum in suppositories or warm milk, thus quelling pain without narcotizing; which would be liable to accelerate the disease. Opiates are advantageously given by the vagina, in suppositories or injections, and hysteralgia is sometimes cured by leaving one or two grains of acetate of morphia in contact with the neck of the womb every third or fourth day. Neuralgic symptoms are often relieved by adding opiates to poultices, ointments, and liniments. Other remedies failing, opiates may be applied to the raw surface of the blistered skin, or injected into the cellular tissue.

Nitrate of silver, etc.—It is often necessary to preface this remedy by linseed tea, or other cooling injections. If the solid nitrate increases too much the habitual pains, or causes the ulcerations to bleed for two or three days, it is well to try a solution of forty to sixty grains. This may require a repetition every three or four days.

Sometimes he uses a solution in the strength of one ounce of the salt to two or three ounces of distilled water as an application to ulcerated surfaces. Chronic uterine catarrh, or inflammation of the mucous membrane of the cervix, without the slightest abrasion, the membrane of a dusky, livid hue, tender, and secreting pus, may last for years, but generally leads to denudation of the villi, and gives an excoriated appearance. This, with or without excoriation, can be cured by the solution every fourth day, and the solid nitrate occasionally. In obstinate cases, a small portion of the solid stick may be left in the canal.

In vaginitis, the injection is best. The patient should be placed on her back, a small glass speculum introduced as far as possible, and an ordinary glass syringe, full of a solution of forty grains to the ounce, injected. The fluid should be left in contact for five minutes, and then received in a cup. Sometimes as he withdraws the speculum he freely touches the vagina with the solid nitrate diluted by chloride of silver. Especially are these injections applicable in virgins, where a moderate-sized speculum cannot be introduced.

In consequence of the serious accidents following the injection of this article into the womb, he prefers tincture of iodine in solution as an intra-uterine injection. In follicular inflammation of the labia, in eczema and prurigo, or pruritus, external or internal, cotton wool should be soaked in the solution of the nitrate of silver, and carefully rubbed over the diseased surfaces for a few minutes. Even where the disease had existed so long that the pudendal skin felt like parchment, and rubbed in every day, then every other day, then every fourth day, the skin became soft and pliable, and all the pain disappeared in a few months.

His experience teaches him that this agent is not a caustic; it only condenses tissues, without reducing their bulk. It may cause stricture, but only by this action.

Tincture of iodine suits some idiosyncrasies better, and may be used in the strength of one drachm to an ounce of distilled water. It is much less useful than the nitrate of silver.

Ulceration of the cervix may be much shortened by one or two applications of acid nitrate of mercury or potassa cum calce. Infungous and varicose ulceration, these remedies stop the bleeding and promote the cure. In diphtheritic inflammation of these parts, nitrate of silver acts as a poison, but the potassa cum calce effects a cure.—(*Lancet*, Feb. 2 and 23, 1861.)

THE FUNCTIONS OF THE PLACENTA.

By V. NIVET, D.M.P., of Clermont Ferrand.

M. Nivet, in a letter to Prof. Courty, takes issue with him on the ground that he has declared the placenta to be exclusively an organ of absorption and nutrition. M. Nivet maintains that it is also an organ of sanguification. He explains this as meaning that function which has for its purpose the adding of oxygen to the blood which traverses the capillaries of certain organs; the result is that the globules, become redder and the blood warmer. This function is direct or indirect. In the direct, the black blood, which has furnished materials to the organs of secretion and nutrition, comes in contact with the atmosphere, or with a liquid containing oxygen, which gas unites with it.

In the indirect, the organ (the liver for example) carries from the blood materials charged with carbon, (the bile,) causes the oxygen to predominate in the particles dissolved in the blood of the hepatic veins. The villosities or divisions of the cotyledons of the placenta are formed of tubes terminating in a cul-de-sac in the uterine sinuses. These tubes contain each a ramification of one of the umbilical arteries, which forms a loop by anastomosing with the umbilical vein. This loop represents the capillary network of the lungs, or more exactly that of the veins and arteries of the gills of animals which

live in the water. These extremities are plunged into the uterine sinuses, from which they are separated by a membrane of great delicacy. The pores of this tunic are large enough to permit the plasma, but not the globules of the blood of the mother, to pass into the placental vessels.

To verify these views, he made the following experiment: after the birth of a child at the Hotel-Dieu, he tied and cut the cord, and then separated a piece of it, first ligating it at each end. The umbilical arteries presented a deep blue color, the vein a lilac tint. Two punctures were made at the extremities of this loop, one into an artery the other the vein; the two jets were received on a white surface; that from the artery, was of the color of the blood of a vein of an adult; that from the vein was sensibly redder, its colour was intermediate to that of arterial and venous adult blood, but approaching venous. The blood by contact with the air became redder. A drop of warm blood from the vein was quickly spread on a warm glass, and, under the microscope, was in every way similar to the blood of an adult. After the separation of the placenta, the umbilical vein presented a lilac reddish tint, while the arteries were much darker, approaching blue.

All subsequent experiments have verified these observations. He concludes from these facts, that the blood of the umbilical vein is more oxygenated than that of the arteries; and that the placenta is an organ for the formation of the blood.

Again, the foetal bile is the same as the adult, though a little more liquid. Hence, the liver acts the same in the foetus as the adult. It has for its purpose the decarbonizing of the blood, and giving the child a quantity of that superoxygenated product, glucose. Thus the liver becomes indirectly an organ of sanguification, though it does not play the part of lungs or gills during intra-uterine life.

Hence, we may conclude the placenta to be a sort of pediculated gill, an organ of absorption, nutrition, and respiration.—(*Gazette Hebdom.*, February 1, 1861.)

MATERIA MEDICA.

ACONITIA AND ITS SUBSTITUTES.

BY WILLIAM PROCTOR, JUNR.

THE high price and variable quality of aconitia has rendered its use as a medicinal agent so expensive and uncertain, that many physicians never employ it, depending upon the stronger tinctures of the root, in cases requiring the external use of the aconite. In the manufacture of organic chemical products, very much is added to their cost by the complications and loss rendered necessary or unavoidable in their purification from colouring matter, or strongly adherent resinous or other inert substances in minute quantity, which, whilst their presence impairs the market value of the chemicals, often do not greatly reduce their medicinal power. In asking the attention of pharmacutists to the following modifications of Headland's process for aconitia, it is with the view of furnishing them with a practicable means of supplying their own wants in regard to this potent alkaloid.

It is proper to premise that aconite root contains a green fixed oil, solid below 70° Fahr. which it is important to remove entirely from the solution before attempting to extract the alkaloid, by the agency of ether, a precaution only partly carried out in the published process of Dr. Headland. When a tincture of aconite root in alcohol of sp. gr. .835, whether prepared in the cold by percolation, or by digestion at the temperature of boiling alcohol, as recommended by Headland, is evaporated to one half the weight of the root treated, a quantity of the green fatty oil above noticed separates and floats upon the surface of the liquid. Most of this may be strained out, if the temperature is

below 70° Fahr., but a portion, together with some resin, remains intimately combined in the clear liquid and it is this which is not removed previously to adding the ammonia, in the process of Headland. Further, aconitic acid is soluble in ether, and aconitate of ammonia, may be slightly so, in which case it also would tend to contaminate the aconitia in that process.

Take of Aconite root, in fine powder, five pounds.

Alcohol, .835.

Ether.

Stronger solution of ammonia, each a sufficient quantity.

Moisten the aconite root with two pints of alcohol, and let it stand twenty-four hours in a covered vessel, then, having packed it closely in a cylindrical percolator, pour on alcohol until three gallons have slowly passed, or until the root is so far exhausted that the passing liquid has little, if any taste of aconite. To the tincture thus formed add an ounce of lime, previously hydrated and in powder and agitate them together; separate the precipitate which forms by straining through a close cloth, and saturate the liquid with diluted sulphuric acid till slightly acid. Filter the liquid through a close filter and distil off the alcohol, until the remaining liquid measures about a pint and a half. Remove any fixed oil which may separate on standing, and having continued the evaporation to a syrupy consistence, agitate it well with four fluid liquid ounces of ether in a suitable bottle, and decant the ether when it has separated. Then add the solution of ammonia in excess, agitate thoroughly, wash the mixture with repeated portions of ether, by agitation and decantation, and having mixed these last ethereal liquids, allow the ether to evaporate spontaneously from a capsule, until the aconitia remains as a dry amorphous shining residue which should be removed from the capsule, powdered, and preserved, for use in a stopped vial.

As thus obtained, aconitia is a powder of greenish or brownish white colour, uncrystallized, very soluble in alcohol, ether and chloroform, saturates acids, and has a strong alkaline reaction. It irritates the nose powerfully when a minute particle is inhaled, but does not excite sneezing.

Modes of using Aconitia.—When aconitia is to be employed in the form of an ointment, its activity may be much increased by adding to it a sufficiency of acetic acid to salify it, which renders it more readily absorbable in contact with the skin. The powder should first be triturated with a few drops of alcohol, and the acid added to this in the proportion of a drop of acetic acid to each grain of the alkaloid.

Glycerole.—When aconitia is mixed with a slight excess of acetic acid it readily dissolves in glycerin, and in this state may be applied by friction to the surface requiring its anæsthetic action. The proportion of the alkaloid to each preparation must be regulated by the prescriber; two or three grains to the drachm of prepared lard is a maximum strength for the ointment, and from this down to one grain.

SUBSTITUTES FOR ACONITIA.

Tinctura Aconiti Radicis, U.S.P.—This preparation is of such strength, that two pints of the tincture is intended to represent twelve ounces troy of aconite root. Owing to the hard and resistant structure of this root, and from the annoyance arising from the dust in effecting its pulverization, I believe this tincture to be, oftentimes, an imperfect representative of the amount of aconite used. It is suggested to those who have not a suitable mill for grinding this root, that it may be exhausted by bruising it well in a metallic mortar, with the addition of just sufficient alcohol to prevent dust arising, until fine enough for percolation. Then having added sufficient alcohol to completely saturate the powder, let it stand two days, and pack it firmly in a percolator. Pour on alcohol (which should pass slowly) until the root is nearly exhausted (about three pints for each pound troy of the root. Then evaporate the tincture in a water bath to two pints, and filter. This plan ensures the exhaustion of the root if due care is taken. When the aconite root can be obtained in fine powder, as through a sieve 60 meshes to

the inch, it is best to proceed by direct percolation, after moistening the powder with a fourth of its weight of alcohol.

Fleming's Tincture of Aconite Root should be made with the same precaution; and in this case it is even more necessary, as the proportion of root to tincture is larger.

Aconite Liniment is the name given to a concentrated solution of aconite, with a portion of glycerin, originally prepared by the writer of this paper. An experience of eight years with this preparation, warrants the opinion that it is strongly deserving of the attention of the medical profession. A fluid ounce of this preparation represents two ounces of the root; it is therefore about five times the strength of the Official Tincture, and about three times that of Fleming's Tincture. I have for years past adopted the custom of keeping a normal solution of aconite root, obtained by thoroughly exhausting the drug with the alcohol, and evaporating the tincture until each fluid ounce represents two ounces of the root, removing the fixed oil that separates, and if necessary agitating it with a little diluted alcohol, to remove any adherent aconitia and extractive matter. From this the weaker preparations are made by dilution, and the stronger by evaporation, thus:—

Tinctura Aconiti Radicis. U. S. P.—Take of normal solution of aconite, three fluid ounces; alcohol, twelve fluid ounces. Mix them.

Fleming's Tincture of Aconite Root.—Take of normal solution of aconite, five fluid ounces alcohol, ten fluid ounces. Mix them.

Aconite Liniment.—Take the normal solution of aconite, half a pint; glycerin, a fluid ounce. Evaporate the solution to seven fluid ounces, add the glycerin, and mix them.

Aconite Plaster.—Take of normal solution of aconite root, half a pint; adhesive plaster, a sufficient quantity. Evaporate the solution of aconite until it assumes the consistence of thick honey, then, having weighed it, add as much adhesive plaster, previously melted, as will make the whole weigh sixteen ounces.

Extractum Aconiti Radicis.—Take of normal solution of aconite, half a pint. Evaporate it carefully on a water bath until reduced to the proper consistence for an extract.

In regard to the merit of this mode proceeding, it can be said that it assures the thorough extraction of the aconite, and promotes uniformity in the strength of the preparations, and also affords a very great convenience to the dispenser, who can by preparing a quantity of the strong solution quickly produce the other preparations at will, in quantities to suit his requirements.—*Chemist & Druggist.*

A NEW SALT OF IRON AND QUININE.

By DR. FERGUS, of Marlborough College.

It is generally found that a salt of the protoxide of iron is preferable to one of a higher degree of oxygenation; but it is also difficult to obtain an absolutely permanent salt of the protoxide. Perhaps without exception, the sulphate is the most practically useful of all the salts of iron, owing to the uniformity of its composition. Of the quinine salts, the sulphate is also the most available for general purposes. It is not difficult to form a simple combination of these two sulphates, but the resulting compound is not well fitted for general use. The addition, however, of a certain proportion of sulphate of magnesia, enables us to obtain a salt which is nearly as soluble as the sulphate of magnesia itself—quite unalterable in the solid state, and forming a solution perfectly clear at first, and remaining so for an indefinite period. The iron has no tendency to a further state of oxygenation; the solution had been agitated with oxygen gas, and kept in contact with it for several days, without the least change. A solution of gallic acid tinges a solution of the salt of light bluish color after the lapse of two or three days, and many substances which produce an inky compound with the salts of iron may be mixed with it without causing any change of color.

The proportion of the three sulphates which has been adopted, is 80 per cent. of sul-

phate of magnesia, 15 per cent. of sulphate of iron, and 5 per cent. of sulphate of quinine, 1 scruple containing 16, 3, and 1 grains of the respective salts. These proportions have been found the best for general use, and also for the purposes of manufacture. The proportion of quinine may be increased by prescribing an additional quantity which is readily soluble in the solution of the salt.

One peculiarity is especially deserving of notice; that in this combination the assisting or adjuvant property of both iron and quinine are remarkably developed, the effect of both, particularly of quinine, being heightened in a very marked manner. At the same time, both of the remedies are less apt to disagree with peculiar constitutions which ordinarily refuse to tolerate either iron or quinine. If the heightened power be borne in mind in prescribing this combination, there will be very few cases found in which it will not be suitable whenever either iron or quinine are indicated.—*London Pharm. Journal.*

PREPARATION OF SMELLING-SALTS.

I have for some years been in the habit of making smelling-salts by a process which, I believe, possesses so many advantages, that I venture to bring it before the notice of the Pharmaceutical Society, thinking that it will probably interest some of the members. I will first describe exactly the process I adopt, and afterwards give the chemical explanation of the process. Take of good commercial sesquicarbonate of ammonia 40 avoirdupois ounces, break it into small pieces, the largest of which should not exceed in size that of a filbert, and put it into a chemical air-tight jar having a capacity of half a gallon. Then pour over it 20 fluid ounces of strong solution of ammonia (sp. gr. 880), previously perfumed according to taste, and immediately fix on the lid of the jar, taking care that it is properly secured, and keep it in a cool place, stirring the salt with a stiff spatula every other day for a week. Afterwards allow it to remain for two or three weeks, at the expiration of which time it will have become hard—so hard, indeed, that if the precaution of stirring the salt were neglected, it would be almost impossible to remove it without breaking the jar. The period during which the salt should be left in the closed jar sometimes varies a little, but if at the expiration of three weeks from the time at which the mixture was made it has not become sufficiently hard, it should be allowed to remain for a few days longer, and then put into a mortar and reduced to coarse powder, so as to admit of its being readily introduced into any ordinary smelling-bottle. When thus prepared, I generally keep it in well stoppered bottles, each containing one or two pounds weight, and in this state it improves by keeping. In using it for filling smelling-bottles, after putting the dry salt into the bottle a further quantity of the *volatile essence* should be added, in the proportion of about one drachm to an ounce of the salt. After making this addition the mixture will assume a crystalline appearance, somewhat resembling salt of tartar, and it is in this state that I consider it to be in the best condition for use. It is strongly, but pleasantly, pungent, and continues to be so almost as long as any of the salt remains in the bottle.—*Mr. Allchin, Proceedings of Pharmaceutical Society, in Pharmaceutical Journal.*

THE
British American Journal.

MONTREAL, JULY, 1861.

THE CONVICTIONS AT THE LATE CRIMINAL TERM.

Seldom has a criminal term in this city been disgraced by disclosures of the perpetration of crimes of such fearful import, as the one lately closed. The case of Patterson, an unlicensed practitioner at Clarenceville, revolting as it is to all our finer feelings of humanity, is immeasurably transcended in depravity by that of Burns, who complemented the bestial crime of incest with his daughter, by infanticide. Sentence of death has been pronounced, and most properly too, in both cases; but we cannot, after deep reflection, but feel convinced, that so far as the crime of which Patterson stands convicted, the interests of society would be equally well subserved by consigning him to the Penitentiary for life; and it is for the purpose of assigning our reasons for such a commutation, that we have concluded upon recording in these pages the details of the trials, as they were reported for the *Montreal Gazette*. It is much to be regretted that the medical evidence as given on Patterson's trial, had not been reported more *in extenso*, as it was upon this that his conviction as a murderer mainly hinged; but if we look upon the definition of "murder" as laid down in English Law, that its essence consists in the fact of "malice prepense," express or implied, we shall find this essential element of his crime signally wanting. God forbid that we should attempt to screen a murderer from the just penalty of his crime. Wither the hand that would indite one line with such an object in view! We do not pretend to be of that class of maudlin philanthropists who would abolish capital punishment for the crime of murder! On the contrary, as far as we ourselves are personally concerned, we would suspend every such criminal from the highest limb of a Wellingtonia Gigantia, if such a tree could be found here, provided it would make his punishment more terrible to the gaping crowd of witnesses. But on this subject we may give expression to a serious doubt, whether in view of the necessity of capital punishment, the public spectacle of an execution should not be made to give way, as in some States in the neighbouring Union, to the more private mode of carrying it out. The ends of justice, and the interests of society would be equally well answered, and the *oi polloi* would be deprived of

the opportunity of glutting one of their most demoralized tastes. But to return to our subject.

We have stated that in Patterson's case there is a total absence of all intention. Now with regard to the crime of inducing abortion, the law stands as follows:—To attempt to produce an abortion, is a misdemeanor; if the attempt is successful, and a fœtus is born, whether living or dead, a felony has been committed, termed a murder in the former case, but with this difference, that whereas the penalty in the one case is death, in the other the criminal is sent to the Penitentiary for a longer or shorter period of time, according to the enormities associated with the offence. In the case before us, there is nothing to prove that the infant was born living, in fact there is the strongest ground for believing that it was born dead; and the conviction of Patterson was made to rest, not upon the abortion which he undoubtedly practised, but on the death of the unfortunate girl, which was attributed as a result of the abortion effected upon her, but which we think after serious reflection, might have been shown to have been due to other causes, and this very probably successfully too, had the prisoner confided fully in his counsel.

The law, in a case where the death of the mother is clearly the effect of the measures adopted on her person to produce an abortion, regards such a death, and very properly too, as a murder. But in this case was the puerperal affection, or the abdominal inflammatory effects under which the unfortunate girl succumbed, the direct or even indirect result of such attempts? Of this, it is our honest opinion, there may be entertained well grounded doubts. There was not the slightest evidence of personal injury suffered by the girl, except the laceration of the perineum, for which we cannot account, even had the infant attained the sixth month of its intra-uterine existence which is not probable. This variety of injury is by no means common, even in labours at full term, and has never proved fatal that we are aware of. It was found on Burn's daughter, and was one proof in the mind of Dr. Beau-bien, who examined her, of her having borne a child; yet she was in the witness box to testify against her father, months after her delivery, and in good health. We must therefore dismiss from our minds all idea of the inflammation of the intestines and its consequences having been the effect of injuries committed upon her. Besides, she was in Patterson's house several days after the delivery had been accomplished, was enabled—her health and strength having been equal to the task—to accompany her mother home in Patterson's sleigh; rose from her bed for some time the day after, being the 6th or 7th at the earliest from her accouchement, and then took to her bed the following day, from which she never rose, having died after the lapse of a fortnight. If this puerperal fever, or inflammation of the intestines (Puerperal Peritonitis,) had been the result of direct injury, the symptoms would have declared themselves within a day or two, or most probably within a few hours after the abortion. This they did not do, and it is far more reasonable to suppose, and more in consonance with what we know of that disease, that it originated from an impression of cold contracted during the sleigh ride to her mother's house. Had she been labouring under it at Pat-

terson's house, a sleigh ride would have been a matter of impossibility, and what is more, had it been due to injuries received during the attempts to provoke abortion, it is exceedingly improbable that she would have been living at the time she left Patterson's house, because peritonitis induced by a traumatic cause is rapidly fatal. Besides all these reasons, Patterson's whole treatment of her, from the moment of her sickness, indicates anything but "malice prepense." He did his best for her in his own way, and when he found the case becoming serious, he called in the assistance of Dr. Brigham of Phillipsburg, to save her life. And we have to add, that we are not a little disposed to the belief, that if the girl had been permitted to remain at Patterson's house, had she not undertaken this unfortunate sleigh ride so soon after her delivery, with its consequent exposure to cold, an exposure always peculiarly hazardous to a lying-in woman, the girl would now, in all human probability, have been in the land of the living. Now, surely, in all that relates to Patterson's conduct from the time Olive Savariat was taken sick, there is nothing which exhibits the *animus* of a murderer, nevertheless he was convicted, and not improperly as the law stands, as one.

Of the various crimes, in the long category of them, we regard abortion as one of the most pernicious in its effects upon society. Its tendency is demoralizing in the highest degree; and when it is perpetrated on an extensive scale, as we much fear it is in certain places or districts in the United States, such places in the language of the learned Judge who presided at the trial, are in a condition of immorality rivalling that of a Sodom or a Gomorrha. We have been informed that the practice is common even among the better classes in the States, and that it is a rare thing there now to find a family with more than two children. We regret exceedingly that this vile practice has crept into Canada, and has found here imitators. We rejoice that the law has caught hold of one, who we understand has been a professed abortionist for years, in that part of the country where he resided. That Patterson is an essentially bad man we have no doubt; that he cannot tell the truth even to save his life, we have we fear some evidence of. But be all this as it may, we cannot look upon him as a murderer, however much the law by a legal fiction constitutes him one; and it is our firm conviction that the interests of society would be as well protected by consigning him to the Penitentiary for life, as by hanging him. We could thus render him useful to the country whose laws he has so grossly violated, for the remainder of his days, taking care that for the future he should have no other opportunity of repeating that, or perpetrating any other crime.

We are sensible that in writing as we have done, we are running counter to the feelings and prejudices of our community, and are likely to receive no small amount of obloquy for it. The latter we mind but little and will willingly bear it, because we feel that we are doing what is right. Having disabused our own mind of all prejudice in this matter, and deeply pondered over the subject, we feel persuaded that there are many of our brethren of the press, who possessing as "little favour and affection" for the wretched convict as we have, may yet see the case in the light in which we view it, and which we have attempted to pourtray, who will assist in preventing, by all the means in their power, a capital punish-

ment for a murder, which is one in law, *only so* constructively or by a legal fiction. This case wants every element to constitute it a true murder in the eye of the law, and therefore should not receive that retributive justice which is meted out, and most righteously, to the latter.

Finally, in regard to Patterson, we cannot avoid making this observation, that if murder is imputed to him it can only be by "implication;" and that in England, for many years past, not a single instance of capital punishment for murder by implication can be pointed out. The English law administration has dealt leniently with criminals under these peculiar circumstances, and we can see no reason why there should exist any difference between Canada and England, in the carrying out of a jurisprudence, essentially the same in both countries.

LEGISLATIVE ACTION "PRO" AND "CON" LEGITIMATE MEDICINE.

The proceedings of the last Session of Parliament have produced strange results as regards their influence upon the legitimate practice of medicine, and consequently upon the health and lives of Her Majesty's lieges in this Her Province of Canada. While on the one hand, the Parliament has made "the unlawful and malicious administration of a poison, or other destructive or noxious thing, so as to endanger the life of such person, or so as thereby to inflict upon such person any grievous bodily harm," a felony, or to administer any such "noxious substance" with "the intent to aggrieve, injure or annoy such person," a misdemeanor, as established by the 24 Vic., cap. 7; and while the same Parliament has exhibited its anxiety for the suppression of Small Pox, the great curse of modern times, by the enactment of a law (24 Vic., cap. 24,) whose provisions we have previously detailed, and for which the inhabitants of this Province cannot be too grateful; as if no good could or should issue without an alloy, the same Parliament has at the same time legalized the practice of one of the most unblushing kinds of quackery of which the present age can boast, and every one knows that their "name is Legion." The 24 Vic., cap. 110, is an Act which sanctions and legalizes the practice of what its advocates call "the Eclectic System of Medicine," a name more refined than "Thompsonianism," taken from that of its founder, and selected because more likely to gull or dupe the masses of the people. And we are persuaded that not one in fifty of a sect, which has died out in the United States, its birthplace, knows even the meaning of the term "Eclectic," which they have given to what they are pleased to term their "system of Medicine;" or if they do, the very name which they usurp is a lie to their style of practice. And such are the men, in general utterly uneducated, many scarcely able to sign their own names, whom, peripatetic with a bundle of roots under their arms, which they might gather correctly, if botany entered into their course of pretended study,—and with a liberal allowance of Tartar Emetic,—a detested mineral remedy—secreted in their pockets for the purpose of clandestine admixture with their infusion of Lobelia, to render its emetic action more certain and powerful, these are the men, we say, whom the last Parliament has delighted to honour, and place on a level with the educated practitioners of medicine.

Toiling as we have done during the best portion of our life for the advancement and true recognition of a profession to which we are ardently attached, a profession whose annals are adorned by the names of the noblest and best of our race, and with no other ultimate object in view, than that of placing at the disposal of the inhabitants of these Provinces, a class of men whose medical attainments should pre-eminently qualify them for the relief of the various illnesses to which the human body is incident, we feel it hard that all our labour should have been thus thrown away.

When this Eclectic Bill came before the Legislative Council, after having passed the Assembly, we have been assured that it would have been thrown out, had not the Honourable Hermanus Smith, M.D., the Representative of Burlington in the Council, come to its rescue. We question much if this same Honourable Hermanus Smith, M.D., is himself a Provincial Licentiate. We have most carefully searched and researched the lists of Licentiates of both Provinces, and can find no such name recorded among them. We do not say, however, that he is not. Supposing it however, to be a fact that he has been practising for years and years without a legal authority to do so, the fact sufficiently accounts for his proclivities towards charlatanism. At the last moment, as we have been informed by another Honourable member of the same House, when the tide had fairly set against the Bill, he rose, and began by instituting a comparison between religion and medicine, arguing that as there had been but one religion established by our Lord, it yet became afterwards subdivided into numerous sects in accordance with the varying opinions entertained, and that Christianity flourished the better in consequence. He then applied these assumptions to medicine; considered that men had a right to establish any system of medicine which they thought best; that one system was just as good as another, and consequently that the Eclectics had just as good a right to practise their system with legal sanction as any other had. Such opinions, enunciated by one who was supposed to be a physician, took the Council by surprise, swayed many a vote in defiance of all Sir E. Taché could say, and finally carried the Bill. We think it right that the profession should know how this singular event has come to pass, and through whose instrumentality it was effected. We should regret it much, if, through any want of attention on our part, the Honourable Hermanus Smith, M.D. should be deprived of any of those honours which he has worked to secure.

It may be a question how far any mode of practising medicine should be sustained by a government, and whether it is right to proscribe, under penalties, every mode of practice save one. True it is that every European Government adopts the plan, while some of the American States have repudiated it, and our own country has followed the example of the latter, deprecated and deplored as it has been by the whole medical press of that Union. If there be no value in antiquity, nothing to be learned from the observation and experience of the wisest and the best, who have devoted their lives to the investigation of a particular subject, if the accumulated experience of ages is nothing, then by all means dress every mountebank in a professor's cap and gown, proclaim his teaching good, and his practice that which ought to be adopted by every

one. But if the opposite be the case, if guarded by a wise and cautious discrimination, an eclecticism of the truest kind, if guided by every light which science in its most extended application can bring to bear, if such conditions are to be taken into consideration, let them receive their due, their adequate recognition and their prerogative. Where then would we place the mushroom growths of a yesterday, which, like "Thompsonianism," alias "Eclecticism," take a temporary hold of the lowest orders only of the public mind, then fade away, and in their decay pollute the atmosphere by their corruption. One novelty would usurp the place of another, just as the whim, the caprice, or the device of some cunning rogue might engender.

Unlicensed quackery we have never feared, and we question much, if there exists a respectable practitioner who has not been rather benefited than otherwise, by the residence of an unlicensed quack in his vicinity. Such is our experience. Whether it is right or wrong to permit such persons to practise in open violation of law, is a point, the morality of which we do not propose to discuss at present. This, however, is a vastly different thing from a Government permitting the passage of a Bill which actually legalizes the practice of a quackery of the very worst description, and whose advocates are just as unscrupulous as their pretensions are devoid of every attribute except that of unblushing knavery.

McGILL COLLEGE GRADUATES ABROAD.

Dr. H. H. Read, who passed his examination for the degree of M.D., at the close of the session 1860, but who, owing to non-age, did not receive his diploma till the Convocation of 1861, passed his examination before the Royal College of Surgeons of Edinburgh in April last, standing second in order of merit and was admitted a Licentiate. Dr. Francis Wayland Campbell, who graduated in 1860, passed his examination before the Royal College of Physicians, London, on the 1st of June, standing also second in order of merit, and was admitted a Licentiate of the College.

BOTANICAL SOCIETY OF CANADA.

Meeting—14th June, 1861.—The Society met in the Convocation Hall of Queen's College, Kingston, on 14th June—the Rev. Prof. Mowat, afterwards Rev. Prof. Williamson, V. P., in the chair.

The names of the following subscribers were added to the list:—Miss Fisher, Newmarket; Rev. H. E. Plees, Carrying Place; Rev. Mr. Borthwick, Ottawa; John G. Giles, M. D., Farmersville; W. Carter Deans, M. D., Trenton; W. Weir, M. D.; H. D. Lord, Ladlowville, Tompkias Co., New York; Edward C. Fox, of Balliol Coll., Oxford; Samuel H. Fee, Kingston.

Letters were read from Dr. R. K. Greville, Edinburgh, and Mr. J. T. Syme, of St. Thomas' Hospital Medical School, London.

Donations of seeds were announced from Mr. Haage, Erfurt, and Mr. Bruce, Hamilton, and of a very interesting series of specimens of Canadian lichens from Mr. B. Billings, jun., F.B.S.C., Prescott. Among the donations to the Library were Dr. Mueller's *Fragmenta Phytographiæ Australiæ*, vol 1, from the author; Principal Dawson's *Memoir on the Pre-Carboniferous Flora*, from the author; and several interesting popular works on Botany, from Mr. Stanton of the 1st Royals.

Professor Lawson exhibited under the microscope several interesting Algæ from the pond in Queen's College grounds, including a beautiful diœcious species of *Spirogyra*, with perfect globose spores *in situ*, germinating spores, and also *Asteridia* of great size; *Chætophora elegans* in various states, the red-snow-like resting form of *Protococcus viridis*, &c.

The following papers were read, and will be printed in the Society's "Annals."

1. On the Geographical Distribution of the Coniferæ in Canada. By Hon. W. Sheppard, D. C. L., of Fairymead, Drummondville, L. C.

2. Description of the Curculio, its mode of destroying fruit, and the various means employed to check its progress. By Thomas Briggs, jun., Kingston.

3. Remarks on the species of Oak, their history, habits, and uses. By Miss Crooks-Hamilton, C. W.

4. On the Lichens of the neighbourhood of Prescott, C. W. By B. Billings, jun. With specimens.

Excursion—18th June, 1861.—The members visited the woods along the road between Kingston and Bath. The day being fine, many interesting specimens were collected. Ferns were numerous, among others *Osmunda cinnamomea*, *O. interrupta*, *Polypodium Dryopteris*, *Onoclea sensibilis*, *Polystichum acrostichoides*, &c. The swamps were gay with flowers: *Calla palustris*, *Arisæma triphyllum* (the Indian Turnip), *Orchis spectabilis*, *Corallorhiza innata* (the Coral-root), and numerous other terrestrial orchids; *Cypripedium pubescens*, also, but the last not in flower. Carices were plentiful. Near the Fairfield Farm several acres of dried up swamp were covered with a carpet of *Marchantia polymorpha*, abundantly furnished with stalked, spore-bearing, rayed, disks, as well as with the little shields in which the flask-shaped antheridia are contained; they were in a good state for showing under the microscope the remarkable movements, &c., of the phytozoa. Many other Cryptogamic plants were obtained, especially, among mosses, interesting fertile specimens of numerous species of *Mnium*, *Bryum*, *Hypnum*, *Funaria*, *Sphagnum*, &c. Algæ were in good condition, including species of *Spirulina*, *Confervæ*, and *Nostoc Mougeotia genuflexa*, *Vaucheria sessilis*, the elegant *Pandorina Morum*, *Chætophora elegans*, *Tetraspora gelatinosa*, and numerous *Desmidiæ* and *Diatomacææ*. The party returned laden with spoils, a full account of which will be given in the Society's Annals. Not the least beautiful plant collected on the occasion was the *Linnaea borealis*, which was abundantly covered with blossoms on the edge of a wood,—That "little northern plant, long overlooked object, flowering early,"—which Linnæus selected on the Swedish mountains to commemorate his own name in the annals of Science.

COURT OF QUEEN'S BENCH.

[EXTRA TERM.]

(Reported for the Montreal Gazette.)

Present—The Hon. T. C. AYLWIN.

TUESDAY, 2nd July.

Cyndal Burns was next called to the dock charged with the murder of his child.

Mary Ann Burns, daughter of the prisoner, was sworn. Resided in Bolton for the last 3 or 4 years. There are nine children in the family. In the year 1859 was living in my father's house. About Christmas in that year I spent a few days in Mrs. Thompson's (a neighbour's) house. Was then in the family way. (This statement was made with the greatest reluctance by the witness, as was also that to the effect that the prisoner was the father of her child.) The child was born the night I came home from Mrs. Thompson's. There was snow upon the ground. When I was delivered, the child was taken away and placed at the foot of the bed, where it lay a couple of minutes. I heard it crying. My father came and took it with him. I told him to bring it back, and said, "If you are mean enough to make me have the child, I am willing to take care of it, if everybody does know it. He told us to shut up our G-d-d heads or else he'd lick us. This was said after my mother had told him to bring it back lest he-

should get punished for making away with it." My father then went out and shut the door after him, after which I heard nothing more. The prisoner remained outside about ten or fifteen minutes, and on coming back made no answer to my mother's question as to what he had done with the child. I never saw it since. It was not baptized. My mother then sat down and cried, and that was all the good she could do me. She took care of me after being delivered. (The witness appeared greatly agitated, and was unable to speak for a few seconds. The prisoner who had been observed making suspicious signs with his fingers, had his hands pinioned to his sides, which made him look displeased.)

WEDNESDAY, July 3, 1861.

MISTAKE—At the opening of the court—which, by the way, was densely crowded, Mr. Johnston desired to mention a mistake that had been made by one of the morning papers, in stating that the prisoner Burns had had his hands pinioned because of his having made signs with his fingers while on trial, Tuesday evening. The misapprehension had doubtless arisen from the fact of the prisoner's having been told to keep his hands down by his sides to prevent his making signs to any body.

Cindal Alexander Burns, was then examined—I know Mary Jane Burns; she is my sister. We were all living together in Bolton, Christmas, of 1859. I slept up stairs, and on a night soon after Christmas, my sister and I came home from Alexander Thompson's. He lives a little over two miles from our house. When I came home with my sister I took no supper, but laid down by the stove for a short time. I then went up stairs and went to bed. I did not go to sleep. There were cracks in the floor and I could see through to the room below. I saw my father and mother and Mary Jane. My sister was laying down on the bed near the stove. My mother was beside my sister, and my father was also there near them. I could see what took place down stairs from above. I saw my sister have a child. The child was wholly born when I saw it; it was lying on the bed. I heard Mary Jane moaning, and my father told her to keep still. I did not see my mother doing anything to Mary Jane before she had the child. My sister was quite covered by the bed clothes. The child was alive; I saw it moving. My father carried the child out of the house, and then I saw him kick it. He then carried it down towards the brook. He placed the child upon the ground, and kicked it on its head. I heard the baby make a little noise. My father wore his boots. I did not hear the child cry after he kicked it. (A voice—I think not.) When my father was taking the child out, my mother told him not to kill the child—that if he did, he would get into a tight place. He told her in reply, "Shut up your head, or I will strike you." I did not hear my sister say anything. He took the child up in both hands after kicking it and took it to the brook. This brook is about four or five acre from our house. The brook was frozen over at the time. I fell asleep before my father returned, and did not see him come back. There was a hole in the shingles of the roof, and by raising them we could see what was done outside. My two brothers were with me, named Freeman and James. We could distinctly see what passed outside. I saw the child carried out was naked. I could not distinguish whether it was a boy or a girl. Not more than a minute elapsed between the child's being carried out, and the cry that I heard. I saw my father in the house the next morning. I never saw the child after it was carried away. My father appeared to be very sober on the morning after the occurrence. He was lying awake in his bed when I got up. My sister was lying down in the morning. I did not remember anything that was said on that morning. In the month of May after, I was catching suckers in the brook, and I got hold of a piece of decayed flesh, and threw it back again. I told my father, and he asked me if the flesh was white. I never went back again to look for it, because I did not like to. My father did not make any reply when I told him that I had found the piece of flesh.

Cross-examined by Mr. Dougherty—I went to Woodward's last fall, but did not tell him my name, because I was afraid he would send me back home. I left home without my parent's consent. I returned this spring from Woodward's. David McLachlan came after me and brought me home. It was said that I had been killed by my father. And I was brought home that it might be disproved. My father was in jail in Montreal when I returned. I saw my father in jail. Mrs. Thompson told me that my sister had owned to me that she was with child. My sister did not tell me herself she was going to have a child. Two of my brothers saw the child through the stove-pipe hole. I heard groans from below, and can swear that it was my sister that groaned. When I found the piece of flesh, I did not examine it closely. Dead horses had been thrown into the brook two years before, and I was not certain whether the piece of flesh was a piece of one of the horses or not. I thought it was very unlikely that the flesh could have been that of a horse, as the horses had been thrown into the brook to years previous. I don't know what has become of the child; I have not seen it since it was taken from the house. I do not hate my father; I like him as well as ever I did. I do not like him as

well as I do some other men. I saw the child move; I saw its feet moving when in the house, and when carried out of doors.

Re-examined by Mr. Johnson—My sister said she would not go with my father when we were out in the field together. We were walking together, and she told me that my father wished her to go out walking with him, and that she then said "I will not go with him."

Two of the prisoner's sons were brought in, one 10, and the other 13 years of age. They said that they had never been taught one prayer, or that there was a God. They were therefore not examined.

Mrs. Lake was then examined. Mary Jane Burns came to my house, which is about two miles from her own father's place, on the night of December 24th. 1859, I believe. I thought she was in the family way, and asked her about it. She denied that she was pregnant. She went home with her brother Cindal on the 26th. Saw her about five weeks after, and she appeared to be no longer in the family way.

Cross examined—I could not be mistaken in my opinion respecting Mary Jane Burns' condition.

Harrison Davis, examined—Called at the house of the prisoner in the spring of 1860, and saw Mary Jane suckling her mother's child.

A female witness deposed that some time ago she observed Mary Jane Burns in the family way; two months afterwards she noticed a change in her appearance.

Dr. Beaubien, examined—Examined Mary Jane Burns this morning, to convince himself that she had had a child. The result of his examination was, that she had borne a child. He then gave his medical reasons for his belief. In his opinion she had given birth to a child several months ago.

Mr. Dougherty then cross-examined Dr. Beaubien, and after a few unimportant questions, the case for the Crown was finished.

Mr. Dougherty then followed for the defence with much ability.

Mr. Johnson, Q. C., replied, severely reprobating the squalid wretchedness and worse morality of the Burns family, which were a disgrace to the country. He then recapitulated the evidence in an eloquent address.

The learned judge then proceeded to sum up, first reading the evidence, and analyzing it in the most masterly manner at some length, charging the jury strongly against the prisoner, but urging that if there were any doubts, the prisoner should have the full benefit of them, as a verdict of guilty would doubtless consign the prisoner to ignominious end.

The jury retired at half past five, and at six o'clock returned with a verdict of "guilty."

The prisoner upon hearing the verdict, exhibited the first symptoms of emotion during the trial. He stammered out a few words, bent over the bar of the dock, and burst into tears.

Mr. Delisle, the Clerk of the Crown, put the usual question whether he had anything to say why sentence should not be passed on him as the law directed. Burns replied in a low inaudible voice, broken with tears, but was at length understood to say, "I am as innocent as the Lord that made me."

Proclamation having been made, Judge Aylwin passed sentence of death in the usual form.

THE PATTERSON ABORTION CASE.

TUESDAY, 25th June, 1861.

Before the Hon. Justice T. C. Aylwin.

Jesse Patterson was then put upon his trial for having on the 12th December, 1860, murdered one Olive Savariat by administering drugs designed to procure abortion. An English speaking jury having been sworn, Mr. Johnson, Queen's Counsel, prosecuting for the Crown, addressed the jury, briefly laying the case before them.

Mr. Tasse, coroner of the district of Iberville, was then sworn; as such coroner was called upon on the 6th March, 1861, to hold an inquest upon the body of Olive Savariat; the inquest adjourned to the 13th and 14th of the same month, to allow time for a proper post mortem examination. The inquest was held at the instance of Mr. Johnston, a magistrate of Clarenceville. Mr. Johnston sent him a letter stating that Olive Savariat had come to her death through ill treatment.

Hon. Mr. Drummond, Q. C. (with whom was Mr. Murdoch Morrison.)

"That's no evidence, the letter should be produced."

Mr. Tasse—The body was exhumed from the cemetery in which it was interred, and examined by Drs. Beaubien and Beaujôin, in presence of Dr. Tasse, and fully identified by her mother and other competent witnesses.

Marianne Gobert, widow of Joseph Saviart—My husband died seven years ago, he left me with six children, (she here gave their names) Olive, a young girl was among

them, she died on Shrove Tuesday of this year, and was then nearly 17 years of age; before her death she was at Mr. Collins' as a servant. This Collins is the father of James Collins, and resided at a distance of two or three miles from her residence in Clarenceville. Olive was in the habit of coming home every 10 or 15 days.

Mr. Drummond here suggested—As it is a question of murder it may be advisable to pass over these details and proceed to the point.

Mr. Johnson—"I must prove the identity, as the coroner could not do it."

Mrs. Gobert—I brought my daughter home in October, and she resided with me until a week before Christmas, when she went to live with Patterson the prisoner.

Mr. Johnson—"Do you know Patterson, is he here?"

Mrs. Gobert, (crying)—"Yes, there he is."

Mr. Morrison—"Why she pointed to Mr. —."

Mr. Johnston—"No, she turned away her head at the time she identified him, and it was thus the pretended mistake took place."

Mrs. Gobert, (sobbing)—"No, no."

Mr. Johnson, pointing to Patterson—"Is that Patterson?"

Mrs. Gobert—"Yes, (sobbing loudly) I have known him for the last five years."

She was here allowed to retire to compose herself and on returning, said—"Patterson engaged my daughter as a servant, he came himself to ask her services, I was not then present, my daughter told me so on my return."

Mr. Drummond—"That's no evidence."

Mr. Johnson—"What did your daughter say?"

Mr. Drummond—"I object to that, I object to all illegal evidence."

Mrs. Gobert—"My daughter left my house one morning after breakfast, to go to Mr. Harvey Buell's store in the village. She proceeded there to buy a dress and took it to Patterson's house to cut it out on a pattern in his wife's possession. Patterson's house was the third from the store. Saw her at Dr. Patterson's three or four days afterwards, called there as she was passing, and my daughter told me that she had been requested by Patterson to stay a few days as his wife was sick and unable to do her household work; she might then have stopped 14 or 15 days with Patterson. A fortnight after the first visit to Patterson's house I returned there and found my daughter sick. Witness was then going to wash and in passing by asked her little son, where was his sister, he replied that she was up-stairs, entered the house and was proceeding up stairs, when she met Patterson's wife who told her that her daughter was sick, went up-stairs and found her daughter sick on a truckle-bed. I knew what ailed her when she told me."

Mr. Drummond—"I object to the recital of any pretended conversations between the witness and her daughter, as it is not pretended that this is her dying declaration."

Judge Aylwin—"Mr. Johnson, ask the witness what were her daughter's symptoms."

Mrs. Gobert, again sobbing loudly—"She had lost all her colour and most of her blood."

Judge Aylwin—"Did you know what was your daughter's malady when you saw her."

Mrs. Gobert—"No, but I was told as far back as October that she was *enceinte* and saw that it was true. When the prisoner came up to the room a few minutes after, he asked her if she was still in pain, she replied that she was and he gave witness some spirits of turpentine to rub her with, and recommended it as very efficacious for the purpose of alleviating pain. She (witness) then understood that her daughter had been taken sick at four in the morning. She was then no longer with child."

Patterson asked witness how long her daughter was pregnant, she said about seven months, Patterson replied "Oh no," and showed with his hands what might have been the size of the child. He was then asked if it would be safe to remove her to her home, and replied that it would be, provided she was well covered up. Accordingly witness wrapped her up carefully and took her away in a sleigh. She immediately took to her bed, but rose the next day for a short time, and again took to her bed to rise no more. And for two or three weeks before her death, continually vomited and spat up blood. Remembers that the deceased spat blood eight days or so after returning home. While so lying ill, Patterson attended her and called nearly every day. Among other medicines he gave her some salts. Dr. Brigham also called to see her a few days before her death. Dr. Brigham merely glanced at her and turned away. She then received the Sacraments of the Church.

Mr. Johnson—Did your daughter tell you she was going to die?

Witness—After receiving extreme unction she called me to her bedside, and said she was going to die.

Mr. Drummond objected to the further admission of this evidence: it must be established more fully than had yet been, that the deceased was aware that she was about to

die. In support he quoted an authority wherein it was stated, that it lay with the Court to determine whether the deceased knew that she was in a hopeless state.

Mr. Johnson replied that she was, beyond a doubt, and supported his commentaries on the evidence by quoting from Roscoe.

Judge Aylwin decided that Mr. Drummond should cross-examine the witness on this part of the evidence, in order to ascertain whether the deceased was at the point of death.

He accordingly questioned the witness, who stated that seven or eight days before her death her daughter said that she was about to die, and gave her some of her clothes.

Mr. Drummond here said that it seemed to him that the course followed by the prosecution was not the proper one; if it should be subsequently established that the deceased died by consumption or some other disease instead of as preferred against the prisoner, a very false impression would go abroad to the public mind.

Mr. Johnson replied that in the course of, he trusted a somewhat extended practice, he had always found it best to follow a case in the order of its events, as the surest and shortest way.

Mrs. Gobert's examination resumed—Two or three days before my daughter's death, she called me to her bedside and requested me to pray to God for her; she also asked Mrs. Pettier her half sister to pray for her. I believe that she was then aware that she was about to die and that the doctors could do no more for her. She also said *comme il est chef James Collins, il est cause de ma mort. Il aurait mieux donner trente piastres pour faire mourir mon enfant, plutôt que de me les donner pour le faire vivre.* ("James Collins is the cause of my death, he preferred giving \$30 to kill my child, than to support it.") She also said that during the first month of her pregnancy James Collins gave her medicine strong enough to burn the inside of a horse, and which he had procured from Patterson.

The witness was here again obliged to withdraw to compose herself; on resuming she said that her daughter told her that James Collins and the prisoner had repeatedly taken her into the barn on Collin's father's property, and performed operations on her with an instrument which gave her great pain, and that Collins did so seeing that the medicines he had procured from Patterson were not powerful enough. In answer to my question my daughter told me "God knows, I was not willing that Collins should do that, but he promised to marry me," and that Collins called two or three times a week on Patterson to induce him to put an end to the child. While staying at Patterson's, my daughter continued, she took sick at 4 in the morning, and was then along with prisoner and his wife, who attended to her.

In the beginning of March, Patterson called upon witness and said that he had been advised to see James Collins and induce him to make some arrangement with her as she was elderly and had few friends to support her.

Mr. Johnson here stated that he had done with the witness, and Mr. Drummond submitting that it was rather late to enter upon her cross-examination, Judge Aylwin agreed to adjourn.

TUESDAY, JUNE 26, 1861.

Mrs. Gobert was again placed in the witness box.

Cross-examined by Mr. Drummond—Her daughter frequently asked her to pray for her, since she had not the strength to pray for herself. Her daughter ceased to speak as to the cause of her death about three or four days before she died. Her daughter spoke to her different times touching the cause of her death, crying at the same time. Her daughter told Madame Pelletier about what transpired in the barn. They began to tamper with her with instruments in October; she was then residing at Collin's father's. She was not sick when she returned home. She returned to her house at the end of October. Prisoner told witness that her daughter, who was then living with Collins, was *encainte*. Witness knew by her appearance that she was so. She went at once and brought her home. Prisoner attended her daughter from the time the latter left his house until her death, which was about three weeks after. Witness understands English, and prisoner understands French, both understood all that was said. Prisoner told witness that her daughter's illness turned to a fever after she was delivered. Her daughter parted with much blood at the mouth and nose.

Jean Baptiste Savarlat sworn. Spoke English. Thought he was going on 16. Am brother to deceased. Lived some of the time during last winter with Dr. Patterson. Went there about Christmas, and did not leave till after my sister's death. My sister came to the Doctor's after I did. Saw my sister every day there; she lived in the house. She was sewing, making a dress for my mother. I was there grooming the Doctor's horse and doing whatever he wanted me. Saw my sister and spoke to her mostly every day, we took our meals together, except when she was taken sick at night. Myself and Dr. Patterson slept up stairs. A night or two before she was taken sick, or

perhaps it was the same night, they told us to sleep down stairs. About midnight, or two o'clock in the morning, the prisoner's wife awoke me and told me to go for Patterson at John Try's. Mrs. Patterson was sick herself. Try lived about a quarter of a mile off. Brought prisoner, and he then told us "unharness the mare and go to bed." I sat down by the fire. There was a pipe hole in the room where my sister was, and I saw her and heard her crying. I then went to bed. Next morning my mother came and inquired where Olive was. My mother went up stairs and met Mrs. Patterson coming down. Prisoner was in the room where Olive was. Mother went up and saw my sister, she then came down and cried. She then went up again and stayed with my sister through the day and at night went home. She returned the next morning. I think my sister stayed in bed for about a week. I then took her home in Dr. Patterson's sleigh. One night James Collins asked me where was Dr. Patterson; I asked Mrs. Patterson and told Collins that she said he was at the corners, (meaning the village,) Collins went there. I think this was about a week before my sister was taken ill. I put my head out of the window and heard Dr. Patterson and James Collins talking together. Patterson said * * * I heard Collins say, "your money is ready." This was about eight o'clock in the evening. The remainder of the witness' evidence went simply to confirm that of his mother, the preceding witness.

By Mr. Johnson—The day after the priest left, Olive Bavarlat, she called her mother to her bedside, and as I was standing by, she said, "only think mother, what a mean fellow that James Collins is, he preferred giving \$20 to kill his child than the giving of it to me to bring it up. It would not have been so had had the child been buried in the ordinary way instead of having been burned." After having said this she turned on to her side and wept bitterly. Her mother said, "Don't cry my dear, when you recover we will have that settled." Her mother only told her that to comfort her. Deceased died in a week after this, and I was present when she died.

The witness was then briefly cross-examined by Mr. Drummond and by the Court.

Pierre Bavarlat was then called, but being absent, Mr. Johnson said it was very unusual to be sitting on the day of election nominations, the witness was absent.

James Collins was called and identified by the witness.

By the Court—Did you ever hear the prisoner say anything relating to this matter?

Witness—No.

Onsime Bavarlat sworn—I am the wife of Felix Pelletier. I was living with my step-mother when my sister was brought home. She was sick when she came from Mr. Patterson's, in a sleigh driven by Jean Baptiste Bavarlat. My sister had had a child. Her linen was brought, they were clothes that had been used in the confinement of a woman.—After some further unimportant evidence the witness continued; Olive Bavarlat said she was going to die. She wanted to confess. The priest arrived and confessed her, and then went home. After her confession, he administered Extreme Unction to her.

Cross-examined by Mr. Drummond—After the priest had visited deceased, deceased made certain communications. At that time she had no hope of recovery, and asked me to pray for her. My step-mother was then present.

The Court then ordered all the witnesses to be called, so that a note might be taken of the absent, and said it should order that they receive no compensation for this day's attendances. Likewise, if any Sheriff, when his Honor was presiding, again created his bustings so near to the Court House, so as to call off the witnesses from this Court, whereof the Sheriff was himself a member, the Court should deal with him after the English fashion, namely, fine him something between \$100 and \$1,000. Between the noise and turmoil of an election, and the sittings of a Court wherein life and death was pending, there was nothing in common.

The witnesses having been severally called, at length a witness was obtained, and the trial proceeded.

—Taylor sworn—About the first of January last, saw deceased at prisoner's house and she seemed in good health. March 10th, saw prisoner, and had a conversation with him about the seraps; he said, I will suppose a case of a girl being brought to my house, and she was in the family way; we come to examine her, and she was four months gone; on further examination the child was dead; would it not be my duty to take that child from that girl and save her character? This conversation took place in the State of Vermont, just over the line. Mrs. Patterson, who was then in custody, wanted me to take a letter to the Doctor, who was at that time at Alburg, and this visit led to the conversation.

Cross-examined by Mr. Morrison—Did not know of myself the character of the prisoner.

By Mr. Johnson—The general opinion was that prisoner was not a very decent sort of a man—the public opinion is that he is rather a bad man. The public report is that he commits a great many abortions.

Dr. Beaudoin was then called, but he not appearing, Dr. Beaubien was sworn, and gave evidence as to the post mortem examination held on deceased. We need not give the details, but witness stated that there had been a fœtus, but there was no appearance of its expulsion in the natural way, it appeared as if some instrument, not sharp, had been resorted to. Witness considered that deceased had died in consequence of the inflammation of the womb, and its appendages, and such inflammation had been caused by unnatural means.

Mr. Drummond then cross-examined witness at considerable length to the end to shew that death might have resulted from causes indicated by the state of the brain and lungs.

Dr. Josiah Stanford Brigham sworn:—On the 27th January, 1861, the prisoner called at my house, and left word with my assistant that he had a patient who was very sick, and he wished me to go and see her. I went the next day. Prisoner persuaded me to go down and see her, so I drove down with him, and saw Olive Savariat; examined the patient, and said to prisoner—"You have a case of peritonitis." She seemed about 17 years of age, she was pale and emaciated, her pulse 120 or 125, and a great amount of tenderness over the region of the bowels.—Prisoner said he had a case of Peritonitis, and it was owing to the girl's having taken cold, observed that she was vomiting. I ordered oatmeal and opium, and warm fomentations to the abdomen. In going up the village I told him that I suspected that he had caused the girl to have an abortion. He replied that he had not, and I heard no more about it. I suspected so from the mere rumour of the village. I thought from the symptoms that deceased would die in a few days.

This witness was cross-examined by Mr. Drummond, and answered a number of questions put to him by the Court, but nothing very important beyond what has been stated was elicited.

Drs. Tassé, Beaudoin and Jones were then examined, and their testimony was to the effect that the immediate cause of deceased's death was inflammation of the womb and parts adjacent, also of the lining membrane of the bowels.

George Efsorge, (an exceedingly aged and feeble-looking man) sworn:—Knows the prisoner at the bar; lived under the same roof with him; also knew deceased. Between the 1st and the 12th of January there was quite a rumpus in the house, walking about, &c.; could hear all, for there was only a door between me and them. Heard a person groaning and agonizing; the groan seemed to come from the stairs, which came up to my door, which not being tight, I could hear everything. There was a small crack in the door through which I could look, but I did not see nor hear what they were. Before that night I perceived that deceased was in the family way; she frequently came into my part of the house. After that noise in the night I never saw her again. Witness was in his 86th year. The noise appeared to be that of a young person; I could not tell whose it could be unless it was hers.

Cross-examined by Mr. Morrison—I think I recollect perfectly all that takes place.

Mary Elizabeth Souls sworn:—Am the daughter of last witness. Knew the prisoner at the bar; saw Olive Savariat at his house, and heard her say she was sick. I judged from her look that she was in the family way. On a Sunday morning prisoner spoke to me about deceased. I should think it was a fortnight after she went to her mother's. He said she was very sick; she had a swelling on her side extending down to her bowels. I then told him what I thought was the matter, and he did not say that it was not so. I said that the sickness she had would go into her arms—I meant she would have a child.

Pierre Savariat, aged 13, was then placed in the witness-box. He was examined by the Court, and it being found that he was quite ignorant of the nature of an oath, his evidence was dispensed with.

Flavien Evegtot, beadle of the Parish of Henrysville, testified to having buried the body of the deceased; also as to its exhumation.

This concluded the case for the Crown, and the Court then rose.

THURSDAY, 27th June, 1861.

Mr. Drummond proceeded with the defence of his client, and addressed the jury on his behalf. He said it was a painful thing to defend a man against whom the public mind had already been prejudiced; but they were bound notwithstanding any prejudices which they or others might have conceived, if the evidence was compatible, to acquit him. Take away the evidence as it was called of the dying girl, and there was nothing to shew that he had anything to do with delivering the deceased of a child. There could be no doubt that she had been so delivered, but there was no proof that Patterson had interfered therein. Nothing, he said, more than slight groans had been heard by the girl's brother, and the old man Saul who was lying near. Had the violent means alleged to have been used at her delivery been employed, louder cries in-

deed would have been heard, and unless there was proof of violent means having been taken at the delivery, there was no ground to bring in a verdict of guilty against the prisoner. Mr. Drummond then contended against the admissibility of that part of the evidence which had been submitted by the Crown as being the dying declaration of the deceased, since the two women who had repeated it had contradicted each other; and went on to say that they had no verbal evidence to shew that Patterson had anything to do with the girl's delivery; and as to the lacerated appearance exhibited on the post mortem examination of the body, he further contended that it might have been produced by an ordinary accouchement. He concluded by saying that he should call witnesses, though it might be a painful thing to see the grief of the mother as they had seen it the other day, still he felt it to be his duty to do so; he should shew that the mother of the deceased was not to be believed on her oath, and it was a melancholy sight to see the woeful ignorance and the want of religious instruction of her son, a boy of 13 years of age, brought up to give evidence on the day before, who could not be made to understand the nature and obligation of an oath.

Edward Billings was then sworn. He said that he could hardly believe Madame Savariat or Gobert on oath.

Mr. Johnson—Is it commonly reported that she has ever taken a false oath.

Witness—I do not know if she ever did, only in common business transactions she is not to be believed.

Uzziah Smith—I know Madame Savariat. I have been acquainted with her for the past three years.

Mr. Morrison—Would you from her general character believe her on oath.

Witness—I hardly know how to answer that question. If she had not much interest, perhaps I would not refuse to believe her. If she had not too much interest in the case, perhaps I might believe her.

Philip Derrick—I know Madame Savariat, and from her general character would not believe her on oath.

Mr. Johnson—Has she ever been known to have taken a false oath?

Witness—I do not know her to have ever been called into court.

Dr. Hall was then sworn, and examined at length on the medical testimony adduced for the prosecution. The gist of it went to prove that the appearances described by Drs. Beaubien and Beaudoin on the post mortem examination of the deceased, might have been caused by natural means, although he could not account in any satisfactory manner for the laceration of the perineum as described by Dr. Beaubien, which could hardly have occurred through any natural process.

This closed the case for the defence, and Mr. Johnson, in reply, proceeded to address the jury. The length of time which had been bestowed upon this case would be well repaid if the ends of justice were thereby forwarded. It was a melancholy task they had to perform, but they must not consult their feelings, for life itself was not a path strewn with roses. And first, there could be no doubt as to what was technically called the body of the offence, the medical men had no doubts reserved when they stated that Olive Savariat's death was brought about by premature labour, brought on by unnatural means. It was useless to speak of the age of the unfortunate prisoner, and he (the speaker) would nothing extenuate, and he dare not set down aught in malice. There could be no doubt that the deceased was pregnant, when was she delivered, and by what means was her deliverance brought about? This was not a mere matter of scientific investigation. It was a matter which was going on every hour in this world, and without it the world would not be peopled at all, and though men should speak with reverence of the mysteries of parturition, yet it was what, in cases like the present, they, fathers themselves, need not fear to speak about.

Mr. Johnson went on to contend that, on the night of the delivery, there were none with Olive Savariat who could have rendered her assistance, save Patterson and his wife. She was arrested for the crime, but he escaped across the frontier, and when visited by the witness Smith, put the hypothetical case which had been testified to. There was then no doubt, from his own words, that he had delivered a woman of a four months' child, and that it was Olive Savariat's case he alluded to when he thus spoke to Smith.

Again, when Patterson was told by her mother that she was seven or eight months gone with child, he scouted the idea, by indicating with his hands that the child was so small as to be only a few months fetus. If this child had been brought into the world in the natural way, would there have been all this concealment, would the child not have been seen? and the dying girl, when an unseen world was bursting on her, said, "would he not have done better, instead of having my child burnt, to have given me \$30 to let it live;" this was evidence of the fact that she knew the child had been burned. Undoubtedly the evidence, having to be translated did not reach the ears of the jury with the force it had struck his, yet the mother of the deceased had rendered

evidence wrung from her with sobs through a whole day, she shewed how her heart was wounded, and she shed tears, such as women only could shed, weeping over her daughter's grave. As to the defence, there had been none, save three men, if men they could be called, who had endeavored to asperse the character of the individual, the poor mother adverted to;—yet not one of them swore positively that they would not believe her upon her oath. And if they had sworn so, what of it?—would that be sufficient to hurl back the evidence piled so weightily on the prisoner's head? No; if it were so, the very foundations of justice would be sapped, and justice would be known no more.—What did those men say? That they hardly knew whether they would believe her or not; but he (the learned counsel) dared any man to come forward, and say that she had ever sworn falsely in a Court of Justice. But not only was her evidence unassailable, it was corroborated by that of two witnesses in the case in all its material points, and by the dying words of the deceased. As to the evidence of Dr. Hall, it left the case just where he found it.

The Court then proceeded to charge the jury, pointing out the nature of the law in respect to murder, and how it bore upon the circumstances which had led to the arraignment of the prisoner for that heinous crime. Judge Aylwin also adverted in strong terms to the prevalence of this offence, especially in the locality where he had resided, and which he characterized as second to the state of Sodom and Gomorrah, and which, if not checked, would overturn the very foundations on which civilized society rested. His whole charge was upon every point adverse to the case of the defence, and concluded by informing the jury that they held the scales of justice, and if they inclined against the prisoner, so much the worse for him. They had a solemn public duty to perform, and one from which they must not shrink, however painful it might be to their feelings. The evidence adduced on the trial having then been read over to them, the jury retired, and remained out of Court about an hour and a half, and found the prisoner

“GUILTY

In the manner and form set forth in the indictment,” and accompanied their verdict with a recommendation to the mercy of the Court.

Patterson appeared stupefied, gazed at the jury for a few moments, and then sunk slowly down on the bar of the dock.

The Clerk of the Crown put the usual question whether he had anything to say why sentence of death should not be pronounced against him, and he replied, “If what I could say would have any effect, I should feel happy to have the opportunity; but I think it would be futile for me to make any observations. I should perhaps, if I had time and opportunity, make certain explanations; but as they would have no effect, I shall say nothing, but throw myself on the mercy of the Court without further observations.”

The Crier then directed the audience to maintain silence, under pain of imprisonment, while the Court passed sentence of death in the usual manner, to be carried into effect on 6th September next.

Patterson was then lifted out of the dock by the Turnkey, for he seemed unable to move and to be still laboring under the terror which struck him with the fatal words “Guilty.”

EDITORIAL SUMMARY.

Prohibition of the employment of Copper vessels for cooking purposes.—By a decree lately issued by the Prefect of Police, the use of Copper vessels for the preparation of all articles intended to be used as food, is prohibited throughout France.—*Moniteur des Sci. Med. et Pharm.*, Feb. 1861.

Successor to the late lamented Dr. Baly.—It is stated that the appointment of Physician to the Queen, vacant by the decease of Dr. Baly, who it will be remembered was killed by a railway accident, has been conferred upon Dr. Wm. Jenner, Physician to University College Hospital, and to the Hospital for sick children. It is stated that the appointment had been previously offered to Dr. Acland who accompanied the Prince of Wales on his American tour.

Influence of Pregnancy on Insanity.—Dr. Tamor in his recent work on the “*Signs and Diseases of Pregnancy*,” says that in his experience, insanity in women is not benefited by becoming pregnant, and that in two cases under his observation, marriage only aggravated the morbid symptoms. The foregoing is quoted by the Medical News and Library from the British Medical Journal of June 23, 1861. We cannot say much for

the philanthropy of the parties who permitted a *marriage* to be formalized between two individuals, one of whom was insane.

Complete absence of the Vagina.—At a meeting of the Surgical Society of Paris, M. Verneuil related a case occurring in the practice of Dr. Patry, in which, in a girl 17 years of age, there was an entire absence of the vagina when the usual phenomena of menstruation took place. An artificial vagina was established. The patient has been married eight years, and continues to menstruate regularly, but has never been pregnant.—*Med. News, from British Med. Jour.*

Pus cells in the Atmosphere.—In the Orphan Asylum near Prague, an epidemic of purulent ophthalmia took place, and 92 children out of 200 were attacked. Upon examination of the air with Pouchet's Acroscope in a ward where lay many of the children affected with it, a large number of pus cells were found. The cells were noticed upon the instruments immediately the air was made to pass through the apparatus. The Medical Society of Vienna appointed a committee to investigate the facts.—*Med. and Surg. Reporter.*

A question as regards Impostors.—Our contemporary the *Med. and Surg. Reporter* quaintly makes the following remarks on this subject. "A Court in France has lately decided that a person who makes a diagnosis, or treats a patient in a mesmeric trance, is not an impostor. We would be pleased to have the same Court decide to what category of animals or things such persons do belong, if not to that of "impostors." The Court bases its decision upon the ground that "the inefficacy of such a diagnosis has not been scientifically proven." Would its "efficacy" in a given case elevate such diagnosis to the dignity of being scientific." (We would submit the foregoing to the Honorable Hermanus Smith, M.D. of some American College, but a member of the Legislative Council of this Province. From his remarks in favour of the Eclectic Medical Bill, at the last Parliament and which passed solely through his energy, we know of no one more competent to answer the question thus put by our contemporary in this Province, and we question if his equal could be met with in the United States. Dr. Smith's perception of medical theories and matters seems to bear a ratio with his height and density. They are spiritualized to a most remarkable extent.—Ed. B. A. G.)

The number of Physicians in the United States.—The Nashville Journal states the number at 40,481. In Massachusetts there is 1 to every 605 inhabitants; in New York 1 to 611; in Pennsylvania 1 to 561; in North Carolina 1 to 802; in Ohio 1 to 465; in Maine 1 to 884; in California 1 to 860; and the Journal states that "in one Village in Vermont there is one to every 100 inhabitants." If this be the fact, we cannot think that Sam Slick ever visited it during his immortal travels, or that they manufactured wooden clocks or nutmegs in such a spot.

A wooden leg-acy.—The late J. N. Bowditch of Boston, among other bequests left to the Massachusetts General Hospital \$5,000 as a fund to be called the "wooden-leg fund," the income to be applied toward defraying the expenses of wooden-legs for patients who have been obliged to submit to amputation. Females are preferred to males in the selection of proper cases.

Cholera in Calcutta.—From recent advices it appears that this scourge is now raging in a frightful degree in Calcutta and its neighbourhood.

Royal Society of London.—Dr. Brown-Sequard recently delivered the Croonian Lecture. The subject was "on the relations between muscular irritability, cadaveric rigidity, and Putrefaction."

Surgeon-General of the United States.—Dr. Finlay of Pennsylvania succeeds Dr. Lawson, recently deceased, to this important office.

Dr. Gibbs of South Carolina is Surgeon in Chief of the Confederate army.

Dr. Eve of Nashville holds the office of Surgeon General to the Volunteer Forces of Tennessee.—*N. A. Medico-Chir. Review.*

Death of Count Cavour.—The death of Count Cavour has filled all Europe with grief and consternation, and “mingled with these feelings,” says the *Medical Times and Gazette*, “there is one universal sentiment of execration at his medical advisers.” The *Lancet* finds it difficult to “read the accounts transmitted to us of his disease and treatment with patience.” From those accounts, we gather that the Count’s illness was a violent fever, accompanied with distinct remissions, and by cerebral congestion. He was bled three times on the first day of his illness; twice on the second, and a sixth time on the third; and when, finally, he was at the last point of weakness, and beyond the possibility of venesection, his bloodless and enfeebled frame was placed in a hot bath, and swathed in mustard plasters. The fever, repeated loss of blood, heat of weather, hot bath, and mustard poultices, proved too much for a frame already overtasked by diplomatic intricacies, and he sank under it June 6th, at seven A. M. Thus, says the *Lancet*, “was that great minister tortured and brought surely within the clutches of death.” Regarding the Count’s case as one of remittent fever, the *Times and Gazette* remarks that “it is like gambling with human life, or like borrowing money to be repaid with enormous interest, to get temporary relief by an expedient so rapidly exhausting,” as the blood-letting proved to be in this case. To us, so far away, and only judging of the case as it is presented in the journals before us, it seems quite astonishing that physicians of such note, as were in attendance upon the distinguished man, should have so persistently followed a practice, which is almost unanimously condemned as injudicious, in such cases, by the best medical men of the age. Can it be possible, as suggested by the *Lancet*, that a life so valuable and “which could ill be spared, has been sacrificed to the antiquated prejudices of Italian physicians?”—*Med. and Surg. Reporter*.

A soldier in a Zouave regiment quartered at Algiers, aged thirty, was found on the 2nd of January, 1860, dead drunk on an embankment near the railroad. When examined, it was found that the penis and testicles had been cut off in a very regular manner. A dog had been seen prowling about the man; the animal was shot, and in its stomach the glans penis was discovered. It would thus appear that the mutilation had been the result of the voracity of the dog, but various circumstances point to a villainous crime. The medical men instructed to report on the case state that the wound was perfectly clean and regular, and that the least trace of teeth and tearing was undiscoverable. One surgeon stated that both scrotum and penis must have been seized by the hand and severed with a sharp knife. The opening of the trowsers in front was buttoned; and in the stomach of the dog was found, besides some herbs and raw meat, a certain quantity of sand. It is thus supposed that the organs had been thrown on the sand and eaten up by the dog. The miserable wretch made a good recovery, and immediately took advantage of his mutilation to excite pity and collect money for drunken purposes. The inquiry set on foot has not led to any result, and the case could not therefore be brought before a court of justice.—*Lancet*.

The latest Humbug.—In the kingdom of Hanover, at the foot of Mount Iberg, is a small town, Grund am Hartz, situated near large pine forests, which is becoming celebrated throughout Germany on account of the *pine-leaf cure*, instituted there in 1855. It is alleged that cases of gout, rheumatism, scrofula, neuralgia, asthma, hysteria, phthisis, and inflammation of the mucous membranes, have either been cured or greatly relieved by this mode of treatment. The extent to which it is carried may be seen from the following extract from the *Medical Times and Gazette*: “In cases of muscular rheumatism, pine-leaf vapor-baths are given, and pine-wood cataplasms applied to the suffering parts, which are also rubbed with the essential oil of the pine; besides which, two to four ounces of pine-juice are prescribed once or twice a day; for which, when the bowels are constipated, pine saline water is substituted.” In fact, the leaves of the pine, either as a bath, inhalation, or solution, combined with other remedial agents, are used in every case which may present itself at the “kuranstalt.” “*Vive la bagatelle.*”
—*N. A. Medico-Chir. Review*.

TORONTO MEDICO-CHIRURGICAL SOCIETY.

The fifth ordinary meeting of the "Toronto Medico-Chirurgical Society," was held in their rooms in *Temperance Hall*, on Tuesday, 11th June.

In the absence of the President the second Vice-President took the Chair.

Dr. U. Ogden read an elaborate paper on the subject of "Disease in the Wind." A lively discussion ensued, and the meeting broke up at a late hour.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

In Brockville, on the 22d June, the wife of Dr. T. M. Morton, of a son.

At Bristol, C. E., on the 16th June, the wife of George Smith, M. D., of a son.

MARRIAGES.

In Montreal, on the 8th inst., by the Rev. Mr. Trudeau, Grand Vicar, George J. Barthe, Esq., Advocate, to Charlotte, third daughter of J. B. Meilleur, M. D., formerly Superintendent of Education for Lower Canada.

In Guelph, C. W., at St. George's Church, on the 27th June, by the Rev. Arthur Palmer, Rural Dean, William Pipe, M. D., of Berlin, C. W., to Mary, eldest daughter of J. Harvey, Esq., of Guelph.

At St. Jude, C. E., by the Rev. Mr. Drolet, Misael Joseph Palardy, Physician of the Parish of St. Hugues, to Marie E. E. M., daughter of the late Olivier Drolet, Esq.

In Galt, C. W., at Trinity Church, on the 12th June last, by the Rev. Michael Boomer, L.L.D., Mr. Walter Strowger, Chemist and Druggist, to Mary Ellen, fifth daughter of Mr. J. Geddes, of Galt.

DEATHS.

At St. Aimé, on the 24th June last, after a few hours illness, Stephen McDonald, M.D., of St. Francois du Lac, aged 43 years.

Died suddenly in Dublin, William Henry Porter, Professor of Surgery in the College of Surgeons, and one of the Surgeons of the Meath Hospital.

In London, on the 18th March, Sir William Pym, M.D., K.C.H., aged 84 years. He was for many years connected with the Medical Department of the British Army, was made an Inspector General in 1816, and was the author of an interesting book on yellow fever.

At Paris, on the 23rd March, M. Ferras, Inspector General of Asylums for the Insane, and of Prisons, aged 75.

At Strasbourg, recently, M. Foyet, Professor of Medicine of the Faculty of that city.

At East New York, on the 9th inst., of congestion of the brain, Dr. E. de Foye, Surgeon of the 38th Regt. Dr. F. was an accomplished military surgeon. He was with Garibaldi in 1847, and a surgeon in the British Army during the whole of the Crimean campaign.—*Med. and Surg. Rep.*, June 15, 1861. Philadelphia.

In New York, on the 13th May, D. Meredith Reese, M.D., L.L.D., aged 61 years, one of the most eminent medical men of that city, whether as regards his scientific prominence or his literary eminence.

Dr. Lawson, Surgeon General of the United States Army, recently died at Old Point Comfort, at an advanced age, and after long-continued failing health.

At Holland Landing, on the 4th inst., Dr. Edward Lyons, L.R.C.S.J.

At Toronto, on the 10th inst., Arthur, youngest son of Dr. Tipple, aged 4 years and 4 months.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT MONTREAL IN JUNE, 1861.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE							THERMOMETER.		WIND.		RAIN AND SNOW.			GENERAL OBSERVATIONS.
	Barometer corrected and reduced to F. 32°	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS.		Maximum read at 9, P. M.	Minimum read at 7, A. M.	Direction and Force from 0 Calm to 10 Violent Hurricane.	Rain in 24 Hrs read at 10 A.M.	Snow in 24 Hrs read at 10 A.M.	Total rain and melted snow		
						Amount.	General description								
1	30.033	68.2	40.7	4.46	4.5	0.10	0.10	77.4	58.0	S.W.	0.10			Faint Solar Halo a. m.	
2	30.044	64.3	52.9	4.05	5.0	0.7	0.7	75.3	56.7	N.E.	2.0				
3	30.514	67.9	62.9	4.89	5.5	0.8	0.8	76.9	59.0	S.W.	4.0	1.14	1.14	Thunder storm at 2 p. m.	
4	30.967	58.5	42.4	4.00	5.0	0.5	0.6	68.0	47.0	S.W.	2.6	0.58	0.58	Hazy in North.	
5	30.184	62.5	46.4	4.58	3.5	0.3	0.6	68.0	50.5	N.E.	3.0				
6	30.103	62.6	49.2	4.65	4.1	0.8	0.0	66.6	57.5	S.	1.3	Inap.	Inap.		
7	30.326	63.2	55.0	4.77	5.3	0.3	0.3	69.4	55.5	E.	2.0	0.15	0.15	Thunder and Lightning.	
8	30.960	72.5	56.0	4.62	3.5	0.2	0.0	78.9	59.0	N.E.	1.3				
9	30.935	75.4	56.0	4.53	3.0	0.0	0.0	84.8	60.5	S.W.	2.3				
10	30.813	82.7	57.6	4.46	1.3	0.2	0.3	90.4	65.7	S.W.	2.3				
11	30.615	81.0	58.4	4.49	1.6	0.0	0.0	89.8	67.5	S.W.	3.3				
12	30.614	71.3	52.6	4.56	2.2	0.4	0.6	82.0	59.5	W.N.W.	3.3	0.03	0.03	Auroral light.	
13	30.942	63.9	40.9	4.69	3.8	0.8	0.0	72.4	50.5	W.N.W.	2.0	0.08	0.08		
14	30.904	63.6	42.2	4.52	6.0	0.6	0.0	71.4	58.2	S.W.	4.3				
15	30.388	61.0	57.9	4.88	10.0	10.0	0.0	66.0	55.0	N.	2.0	0.69	0.69	Thunder storm at 6 & 10 p.m.	
16	30.670	64.7	51.1	4.66	7.7	5.0	0.0	68.5	55.0	N.	2.6	1.06	1.06		
17	30.959	61.8	48.1	4.64	4.4	0.3	0.3	67.4	48.2	W.	2.3				
18	30.863	67.2	50.9	4.59	7.0	0.0	0.0	74.2	55.0	S.W.	2.6				
19	30.757	69.9	55.8	4.59	6.6	0.6	0.0	76.9	59.3	S.W.	1.0	0.02	0.02		
20	30.846	65.6	51.9	4.63	1.0	0.0	0.0	70.8	56.9	W.S.W.	1.0	0.04	0.04		
21	30.701	61.1	53.9	4.82	9.3	0.0	0.0	66.0	54.2	E.N.E.	2.3				
22	30.627	67.5	59.7	4.73	7.3	0.0	0.0	75.8	56.5	S.W.	3.3	0.02	0.02		
23	30.569	65.7	51.1	4.64	6.6	0.6	0.0	76.0	56.0	W.N.W.	3.3	0.01	0.01		
24	30.925	61.1	48.4	4.65	2.0	0.0	0.0	68.5	52.2	W.N.W.	2.6				
25	30.910	70.0	56.6	4.67	3.3	0.3	0.3	77.6	54.9	S.W.	1.0				
26	30.672	73.1	64.8	4.78	6.0	0.0	0.0	80.5	64.2	S.W.	1.0				
27	30.836	68.2	53.6	4.65	4.0	0.2	0.0	75.6	59.2	W.S.W.	3.3	0.08	0.08	Thunderstorm from N. W.	
28	30.827	64.0	53.9	4.73	3.3	0.0	0.0	75.6	56.2	N.W.	2.3				
29	30.822	68.6	54.0	4.62	5.5	0.3	0.3	76.0	56.4	W.S.W.	2.0	0.22	0.22		
30	30.742	69.2	55.7	4.64	5.0	0.0	0.0	79.8	56.8	S.W.	1.0				
S's															
M's	29.852	67.21	53.19	651				74.90	58.04		4.12		4.12		

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT TORONTO IN JUNE, 1861.

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE					THERMOMETER.		WIND.		RAIN AND SNOW in 24 hours, ending at 6 A.M. next day.			GENERAL REMARKS.
	Barometer reduced to 32° Fal.	Temperature of the Air.	Relative Humidity.	Amount of Clouds.	Max'm read at 6 A.M. of next day.	Min'm read at 2 P.M. of same day.	Dew Point at 3, P.M.	General Direction.	Mean Velocity in Miles per hour.	Rain.	Snow.	Total rain and melted Snow.	
1	29.7670	57.82	60	5	69.8	42.2	48.0	S. 45 E.	1.35				
2	Sunday			6	64.4	43.0		S. 56 E.	5.15	0.590			Fog & Rain during evening.
3	3912	66.93	76	7	74.8	53.0	58.0	N. 65 W.	15.04				Solar Halo 5 p. m.
4	6520	52.20	71	7	56.2	53.0	46.0	N. 88 E.	7.72				Solar Halo 8 a. m.
5	6763	51.10	69	10	54.6	47.0	46.0	N. 75 E.	11.66	.612			
6	6992	54.47	81	9	62.0	48.2	47.5	N. 80 E.	4.11				
7	6948	58.63	82	7	66.8	51.5	57.0	N. 52 E.	3.94	Inap.			
8	7105	67.60	64	2	75.6	52.8	58.0	N. 16 W.	5.19				[in S. E. 8.45 p. m.
9	Sunday			0	87.8	63.4		N. 20 W.	10.08				Day very hot, Bright meteor
10	6007	72.22	65	0	85.0	55.5	62.5	N. 35 W.	4.42				Hot and Sultry.
11	4317	72.40	69	3	84.0	57.8	65.0	N. 76 W.	4.94	.007			Hot and Sultry.
12	4847	62.00	61	2	73.2	62.5	49.0	N. 49 W.	15.31				Auroral arch & Streamers.
13	7233	57.90	61	1	66.2	51.2	50.0	N. 35 W.	5.62				Auroral light & Streamers.
14	5777	55.28	72	7	61.2	41.6	48.0	N. 82 E.	2.46	.120			
15	2283	65.42	83	8	73.8	51.0	67.0	S. 7 W.	8.10	.155			Thunder Storm. Yellow matter fell with rain.
16	Sunday			1	65.0	56.5		N. 14 W.	14.33				
17	6998	54.08	60	1	60.8	44.2	45.0	S. 13 E.	2.94				
18	5487	54.60	71	6	63.0	41.8	52.5	S. 30 W.	1.63	Inap.			
19	4718	61.98	80	5	71.4	48.5	61.0	N. 55 W.	4.85	.217			Thunder Storm and heavy rain during afternoon.
20	5780	59.33	74	5	66.8	54.5	56.0	S. 86 E.	5.42	.270			
21	2682	59.12	81	6	69.8	51.2	61.0	N. 70 W.	5.68				
22	4357	66.75	60	2	79.0	50.2	51.0	N. 76 W.	6.62				
23	Sunday			7	71.4	53.8		N. 33 W.	8.87	.037			
24	6338	59.68	63	1	68.4	46.4	51.5	S. 76 W.	3.33				Solar halo.
25	5710	64.35	71	5	71.5	51.6	56.0	S. 55 E.	2.16				
26	4700	68.97	58	4	79.0	59.5	51.0	N. 68 W.	9.24	Inap.			
27	6537	62.30	71	4	72.4	50.0	56.0	S. 39 W.	4.01				
28	6003	61.52	62	5	73.5	54.6	57.0	N. 86 W.	2.56	Inap.			
29	5742	61.58	57	2	71.5	47.2	53.0	S. 18 W.	4.32				
30	Sunday			2	72.0	49.0		N. 13 W.	2.23				Distant Thunder dur. even.
S's													
M's	29.5698	61.29	69	5	70.36	51.26	54.12	N. 39 W.	6.11	2.203			