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ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XXXI.—*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.

I. HISTORY.

Diseases of the Rectum and Anus, in one form or another, are of common occurrence, though they are often neglected by the patient, or overlooked by the surgeon, till they have made such progress, not only by their local effects, but by their disastrous inroads upon the system at large, that they can no longer be disregarded; and it is at this late hour, and under these unfavourable conditions, that the advice of the surgeon is sought for. Nor is this surprising, seeing that with very few exceptions, indeed, the primary cause of nearly all the affections of the lower bowel is found in a more or less constant and oftentimes obstinate state of constipation, preceded or accompanied with various derangements of the chylopoietic viscera.

Of the several affections of the Rectum for which surgical aid is at times required, *Stricture* of this portion of the alimentary canal though not of very common occurrence, is one that requires much discrimination on the part of the surgeon, to fully and clearly understand the various causes that may induce this deplorable state of things, and also the best means of remedying an evil, which, if unchecked in its course,—and this is too often the case in the hands of the young, unexperienced, or thoughtless practitioner,—till relief is beyond reach, and death is staring both patient and attendant in the face, when the only alternative, a very precarious and loathsome one, an artificial anus, presents itself.

Having within the last few years seen seven cases of Stricture of the Rectum, and treated six of them upon a plan different from that generally advised by recognised authorities, and with entire success, a short history of this affection may not prove uninteresting to the junior practitioner, whilst to those who may have grown grey in the service, and have long been wedded to preconceived opinions, it may not be entirely beneath their notice. In the preparation of this paper I have availed myself of the labours of those who from chance or inclination, have been thrown in the way of making something of a specialty of this affection, and who are justly considered as orthodox upon the subject; in all cases where it was deemed proper or requisite, due credit has been awarded, and if I have dissented from long entertained and time-honoured views, more particularly upon the treatment, it has been because I have thought proper to leave a well-beaten track and strike out a new path for myself, and with what success my readers will be the best judges.

I cannot probably find a better preface to this paper than by the translation of an extract from a very practical monograph by a distinguished French surgeon:—"There is one fact, at once curious and important in pathological anatomy: it is that of all the portions or divisions of the alimentary canal, those that are normally of a contracted calibre, are the more ordinary seats of very serious alterations. In these narrowed portions, the blood vessels are more numerous, there is an increased degree of sensibility, the follicles are more developed, the texture is thicker and more compact, and the organization more complicated. It is here that we find *stopping* places called for by the functions to be carried on immediately above; here the contact is harsher, there is sometimes a species of elective organic action which will either permit or refuse the passage of foreign substances, depending upon the properties they may possess or may have acquired. Is there acute inflammation, the points I am indicating are the ones where it rages with the greatest severity, or accompanied by a special class of symptoms of an unusually intense description. Is it a case of chronic inflammation, or of one of those irritative affections which, after having implicated a large extent of surface, becomes limited and centered upon certain points, then rest assured that you will almost always find them in the regions alluded to, causing changes of structure, deep disorganization, and the creation of various morbid products, all of which so frequently baffle the most judicious and scientific efforts of the practitioner.

These culminating points in pathology, if I may be permitted the expression, are the isthmus of the fauces, the esophageal opening, the cardiac and pyloric orifices, the neighbourhood of the ilio-cæcal valve, and lastly, the lower portion of the rectum and anus. Examine cases, open bodies, and you will find that the very great majority of morbid affections, and more particularly those of a chronic nature, of the alimentary canal, select these points not only as their origin but as their principal or exclusive seats.

The termination of the large intestine, and the opening in which it is insensibly merged, are endowed with all the conditions necessary to render their lesions at once of very frequent occurrence, and of a very serious character. A double muscular ring around the anus, opened only by superior muscular power;

large mucous follicles intended to favour the easy passage of the excretions; a high degree of sensibility, oftentimes morbidly exalted; a receptacle wherein irritating substances accumulated by their volume, their consistence or composition; in both sexes the proximity of the most active portion of the genito-urinary organs, whose excitations, congestions or pathological changes promptly extend to the surrounding organs; finally, fits of coughing, even the mere effort of talking, severe muscular action reflected upon the anal region, press, and there confine venous blood; such are some, though not all, of the principal conditions of structure, of functions and connections, which render the rectum and anus of such importance in pathology.

These considerations could not fail to strike the mind and arrest the attention of the observing practitioner; thus many of the diseases of the terminal portion of the digestive tube, supposed formerly to be of rare occurrence, because they were imperfectly understood, have been more attentively studied during the last twenty years, and have become very lately objects of special if not general attention."*

II. Surgical Anatomy of the Rectum.

It will not be out of place, at the onset, for a proper understanding of our subject, and a full knowledge of the parts implicated in stricture, and more particularly in relation to the surgical treatment, as will hereafter be demonstrated to be the only correct and permanent mode of treating this affection, to trace a brief sketch of the surgical anatomy of the rectum.

This portion of the intestinal canal—variously estimated by anatomists to be from six to nine inches in length—is continuous with the sigmoid flexure of the colon, opposite the left sacro-iliac symphisis, and passes obliquely downwards to the right where it rests upon the middle of the sacrum; now it continues downwards moulded upon the curvature of the sacrum and coccyx, next it inclines somewhat backwards and forwards to terminate at the anal orifice, or more correctly speaking, at the upper fibres of the external sphincter muscle. The rectum —one of the many anatomical misnomers—will now be seen to be far from being a straight canal as its name would otherwise imply, has been divided into three portions.

The *first*, or upper *portion*, from three to five inches in length, extends downwards and to the right from the left sacro-iliac symphisis, to the middle of the third sacral vertebra; it is invested by peritoneum on its anterior, lateral, and two-thirds of its posterior surfaces, where the serous membranes of the opposite sides unite to form the meso-rectum, which attaches the gut, rather loosely, to the upper segment of the sacral bone. Posteriorly it rests upon the pyriform muscle, and is separated from the sacrum and its iliac junction by the sacral plexus of nerves, the branches of the left internal iliac artery, the superior hemorrhoidal or terminal branch of the inferior mesenteric artery, and lastly, by loose cellular tissue; anteriorly, the peritoneum is reflected from the intestine upon the posterior surface of the uterus, and its appendages in the female, and upon the posterior surface of the bladder in the male, at a distance of from four to five

* J. L. Bégin, Annales de la Chirurgie Française et Etrangère, 1841; vol. 3, p. 180.

inches from the anus, forming a pouch in which are lodged some portions of the small intestines.

The *second*, or middle *portion*, varies from two and one half to three inches in length, and extends from the middle of the third bone of the sacrum to the prostate gland; it follows the curvature of the sacrum and coccyx, and has the least lateral deviation of any portion of the gut. Posteriorly, it is loosely connected to the bones by cellular tissue; the peritoneum only and partially invests its upper and anterior surfaces; anteriorly, it is in relation with the prostate gland, loose cellular tissue intervening, next we have the vesiculæ seminales and vasa deferentia, leaving a triangular space where the trigone of the bladder is only separated from the rectum by a layer of adipose tissue; in the female the vagina is directly in contact with it, forming the recto-vaginal septum.

The *third*, or inferior *portion*, the least in anatomical importance, is from one to one inch and a half in length, and extends from the prostate gland to the anal orifice; it is directed obliquely downwards and forwards, and has no connection whatever with the peritoneum; it is encircled successively by the internal sphincter, the levator ani, and the external sphincter; it is imbedded in the fatty deposit of the ischio-rectal fossa; and hence, when abscesses are formed in this region, their well known tendency to infringe on the caliber, and interfere with the action of this portion of the intestine; in the male it is separated by a small triangular space from the bulbous and membranous portions of the urethra, while in the female, the same space exists between the vagina and the rectum.

From the foregoing brief description it can now be clearly seen that the importance and extent of the peritoneum—the great dread in cutting operations upon the rectum—has been, to say the least, very much exaggerated; it only invests the upper and lateral surfaces of the first portion, but a small part of the anterior surface of the second, and is totally unconnected with the third portion. In fact, Velpeau* says that the last four or five inches of the rectum (the most usual seat of stricture,) have no immediate connection with this serous membrane.

A few words now concerning the mucous membrane of the intestine, which, from its looseness and numerous folds, has always been a fruitful source of error and doubt in explorations by the bougie. This membrane is thicker, more vascular, and more loosely connected to the muscular coat beneath than at any other portion of the large intestines; hence the resistance offered to, and the liability of stoppage of the bougie. In its contracted state, the lower portion of the rectum is thrown into a number of longitudinal folds, denominated the columns of the rectum; again the mucous membrane forms the three prominent valvular folds of Houston, all directed obliquely; one is found at the commencement of the rectum, this is the great *sticking* point, near the right sacro-iliac symphisis; a second extends inwards on the side opposite the middle portion, and the third projects backwards, from the front part of the rectum, opposite the prostate gland. The situation and direction of these folds should be care-

* Traité d'Anatomie Chirurgicale des Regions, t. II, p. 322. Paris, 1826.

fully remembered to ensure the safe and complete passage of the bougie throughout the extent of the rectum.

Another reason why strictures are not treated by the use of the knife has been from fear of *hemorrhage*. Let us point out the sources whence the bleeding may possibly arise:—1st. The superior hemorrhoidal, the terminal branch of the inferior mesenteric artery, descends between the layers of the meso-rectum, and opposite the middle of the sacrum, divides into two branches which ramify between the mucous and muscular coats to near the termination of the intestine, where they anastamose with each other, and with 2nd, the inferior hemorrhoidals, two or three small branches sent off by the internal pudic artery, near the tuberosity of the ischium, which cross the ischio-rectal fossa, and are distributed to the muscles and integuments of the anal region.

The middle sacral, from the bifurcation of the abdominal aorta, and the lateral sacrals, the last branches of the internal iliac arteries, supply no branches to the rectum, and could scarcely be implicated in any operation performed upon the part, unless the whole thickness of the bowel were incautiously divided down to the bone, either in the mesian line, or about one inch on either side of it. It will now be seen, therefore, that the hemorrhage can only proceed from the branches of the superior hemorrhoidal; and as the incision is generally made on the sacral aspect of the intestine, and presenting, consequently, a firm and unyielding base, I cannot conceive but that the bleeding could be readily and speedily controlled by properly applied pressure.

III. Frequency of Stricture, and the influence of Age and Sex upon its Development.

It is occasionally observed in practice, as a singular coincidence, that several cases of some rare disease will, at times, present themselves in rather rapid succession, and this I have found to be true in relation to the subject under consideration, having seen seven examples of stricture of the rectum in the last few years. However the affection cannot be considered as of frequent occurrence, as is proved by the assertions of those who enjoyed a deserved popularity in the treatment of this disease, and whose opportunities were far from being limited. "It must not be supposed, as some writers would lead us to do, that stricture of the rectum is a very frequent disease.....In a large parochial infirmary in which I have had opportunities of examining many bodies, I have seldom discovered stricture of the rectum."* Again, "organic stricture is supposed by many to be of very common occurrence, but I have not found it to be so; for the cases I have seen bore no proportion to the number I ought to have met with, were the statements made in books correct."†

Age appears to exert little or no influence on the development of stricture, though it is generally of more frequent occurrence in old persons; its average

* T. J. Ashton, Diseases, Injuries, and Malformations of the Rectum, second edition, London, 1857, p. 288.

† George Bushe, Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus. New York, 1837, p. 264.

rate may be reckoned as between the 25th and 61st years. Bushe* records the death of a man from this affection at the advanced age of 72.

Sex, Desault,† from his observations made during a long term of service at the Hotel Dieu, Paris, states that stricture is much more frequent in women than in men, in the proportion of one to ten. Ashton‡ says that the proportion is about equal in the two sexes. Bushe,§ in his fifteen reported cases, mentions having met with stricture in only eight women. Erichsen|| says that it is met with special frequency in women. Of the thirty-one cases I have collected, twenty occurred in men and only eleven in women; of my own cases, four were men and three women.

IV. Causes.

Although in some extremely rare cases, stricture of the rectum has been known to come on spontaneously, yet its exciting source, if not direct origin, is found in inflammation in or about the part itself; and this inflammation may be induced by a variety of causes which may be classed as *accidental*, while *others may be more properly considered as local or constitutional.*

Among the *accidental* causes we have the presence of foreign bodies thrust from the exterior, the lodging of some substance, the retention of portions of clothing or other materials in the gut or its immediate neighbourhood, setting up a degree of irritation that leads, sooner or later, to an effusion of serum or coagulable lymph in the coats of the bowel, or in its cellular investment, which becoming more completely and thoroughly organized, induces degeneration and alteration of the tissues, and with this, necessarily, a commensurate degree of contraction of the bowel, which, if unrelieved, will lead to a complete closure of its canal, and the lingering and agonizing death of the patient.

It is a singular fact that this unfortunate result is more to be looked for after some slight injury, such as a fall or blow upon the nates or anal region, than when the injury has been from the first, of a most serious, if not very doubtful nature. Well do I remember seeing in the hands of my venerable and distinguished teacher of surgery, Valentine Mott, of the University of New York, an enormous angular stone, that had been forciblydriven base foremost into the rectum of a drunken fellow, by some equally drunken associates, just for the "fun of the thing," and which remained concealed in its novel situation for some ten days, producing obstinate constipation and its many and varied accompaniements, and had baffled the skill of several eminent medical men. The Professor's advice was requested; he made a close and critical examination,—the patient not being able to give any account himself—and soon discovered the source of the trouble, but did not so soon find the means of dislodging the intruder; and it required all the mechanical and surgical ingenuity with which he is so pre-eminently gifted, to succeed in performing successfully the only operation on record,

* Op. cit. p. 259.

† Œuvres Chirurgicales, par X. Bichat, vol. 2, p. 422, Paris, 1813.

‡ Op. cit. p. 39.

§ Op. cit. p. 48.

|| Science and Art of Surgery, edited by Brinton, page 759. Philadelphia, 1854.

I believe, of *lithotomy in the rectum*. The after treatment was carefully attended to, the man recovered, and was living several years after free from any inconvenience whatever. Again, that foreign bodies may remain for some years imbedded in the immediate vicinity of the bowel, implicating its tunics and infringing upon its diameters, without, however, the production of very serious, if any evil consequences, is proved by an interesting and novel case I communicated lately to the pages of the *British American Journal of the Medical and Physical Sciences* of this city.*

Operations performed in the perineal or anal regions for the cure of fistula-in-ano, or the removal of hemorrhoidal growths, have been known to be followed with the amount of irritation requisite to induce contraction; yet it is emphatically asserted "that *no* operation for the cure either of hemorrhoidal tumours or fistula-in-ano, ever *did*, or ever *will*, tend to the production of stricture or other diseases of the gut, provided the operation is rightly performed, and that proper attention is afterwards paid to the general health of the patient."†

After this unqualified assertion, the reader may not be a little surprised to hear that the same surgeon, in his reported cases, mentions no less than two instances where the stricture followed his operations for the cure of fistula-in-ano.‡ We must, in all kindness, presume that the operations were rightly performed, and that the necessary care in the after treatment and general condition of the patient had been attended to, and still stricture was the result. Therefore, we must class as among the occasionally accidental causes of stricture of the rectum, operations performed upon this portion of the alimentary canal.

Of the *local, predisposing*, or *constitutional* causes, as has already been said of the other diseases of the bowel, constipation, by whatever cause it may be induced, stands in the first rank as productive of stricture; the hardened fæces passing slowly through the intestine are retarded by its various curvatures and the folds of its mucous membrane, accumulate and distend the part, thereby exciting an undue degree of irritation and pressure, resulting in a low-chronic form of inflammation and its sequences: an acrimonious or acid condition of the alvine excretions; the never ceasing irritation of protracted diarrhœa, and more particularly of dysentery, and the cicatrization of ulcers frequently attending these complaints; functional disorders of the stomach and its accessories, more especially the liver; the development of adventitious structures in or around the bowel, such as adipose, and less frequently, though certainly not the less fortunately, scirrhous tumours, though a contrary opinion is entertained by a distinguished writer, who says that malignant structural change is of more common occurrence than simple degeneration.§ Exostosis of some portion of the sacral or coccygeal bones; an enlarged and indurated prostate gland, and a misplaced uterus, have all, at various times, been known to produce the affection under consideration.

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* March, 1860, p. 99.

† J. Howship, Practical observations on the symptoms, &c., of the diseases of the Lower Intestines and Anus. London, 1824, p. 3.

‡ Op. cit., case 14, page 51; case 15, page 52.

§ James Syme, Diseases of the Rectum, 3rd edition. Edinburgh, 1854, p. 49.

The impaction of various substances after having been swallowed either intentionally or otherwise, may set up a great amount of irritation at the sigmoid flexure, not only causing stricture, but determining ulceration of the bowel, as was seen in an interesting case where a person had swallowed some hog's bristles.*

Again it has been asserted, though I conceive without sufficient reasons, that stricture has arisen from the metastasis of various cutaneous affections,† or from the suppression of habitual discharges; syphilis has also been looked upon as a cause; this can be readily granted if there should be a direct application of the specific matter to the part producing ulceration, cicatrization and contraction of the bowel, but it cannot be admitted upon purely constitutional grounds, unless analogy comes to our assistance, from what we know is of so frequent occurrence in the upper and first portion of the alimentary canal, I allude to the mouth and fauces. The long, and often injudicious use of drastic purgatives, or the incautious use of a syringe, may also be looked upon as exciting, if not directly predisposing causes. Tanchou ‡ cites the case of a lady who had had no stool for *two months and a half;* there was no stricture of any portion of the intestine, and the constipation was due to the inordinate and careless use of injections, whereby the contractile power of the bowel had been very much weakened, and very nearly absolutely lost.

V. Varieties or forms of Stricture.

Stricture of the rectum may present itself under one of three forms:—1st. *Simple*, fibrous or organic, with thickening of the mucous or muscular coats of the bowel, the result of chronic inflammation; 2nd. *Spasmodic*, resulting as its name implies, from abnormal action of the sphincters, and most generally as an accompaniement or symptom of hemorrhoids or ulcerations of the membrane in the immediate vicinity; 3rd. *Malignant*, or scirrhus, consisting in specific degeneration.

VI. Seats of Stricture.

Much discrepancy exists among writers as to the portion of the intestine most likely to suffer from stricture; it is said to have been found at distances varying from *two* to *ten* inches from the anus. In thirty-one cases, the stricture was ascertained to be at from *two* to *four* inches in twenty cases; from *four* to *six* inches in ten cases; and in only *one* case it is reported to have existed *ten* inches above the anal orifice, consequently above the sigmoid flexure of the colon. It will, therefore, be seen that in three out of every four cases, we are to look for the stricture within reach of the finger, that is from two to four inches up the bowel; and in those cases where the assemblage of symptoms would lead us to suspect the existence of stricture, though unascertainable by the finger, and recourse is had to an exploring bougie, we must bear in mind that the examination is attended with much difficulty, and is far from being conclusive or

* J. Burrell, Edinburgh Medical Journal, vol. 9, p. 110.

† Dessault, op. cit., p. 423.

‡ Traité des Retrecisements du canal de l'Uretre de l'Intestin et Rectum. Paris, 1835, p. 29.

satisfactory; the instrument may pass readily enough, perhaps, till it arrives opposite the promontory of the sacrum, when its further progress becomes suddenly and abruptly checked, the extremity of the bougie being either entangled in the folds of the mucous membrane or striking against the bone. Consequently stricture at the sigmoid flexure of the colon is to be looked upon as of extremely rare occurrence, and in many cases as very improbable. There are but few well established instances on record, ascertained positively only after death, as in the case of the great French tragedian Talma. In further illustration of this position, and the deception attending occasionally the use of the bougie, I will quote the following striking case:—"I was consulted by an elderly lady who had been supposed by two medical men of high respectability, to be suffering from stricture of the rectum, between 5 and 6 inches from the anus; finding that the coats of the rectum, though greatly dilated, were quite smooth and apparently sound in their texture, as far as my finger could reach, and conceiving that the symptoms of the case denoted a want of tone or proper action, rather than mechanical obstruction of the bowel, I expressed a decided opinion that there was no stricture in existence. Not many months afterwards, the patient died; and, when the body was opened, not the slightest trace of contraction could be discovered in the rectum, or any other part of the intestinal canal. One gentleman, who had been formerly in attendance, was present at this examination, and wishing to know what had caused the deception, which he said had led to more than *three hundred hours* being spent by himself and colleague, in endeavours to dilate the stricture with bougies, he introduced one as he was wont to do, and found that, upon arriving at the depth it used to reach, its *point* rested upon the *promontory* of the sacrum."*

It will not be out of place to quote a few extracts from well known writers, showing very conclusively the great diversity of opinion in relation to this important part of our subject. "Strictures are commonly situated in the lower part of the gut, within reach of the finger. Are they never situated higher up? I saw one case where the stricture of the rectum was about six inches above the anus; and I saw another case where there was stricture in the sigmoid flexure of the colon, and, manifestly, the consequence of a contracted cicatrix of an ulcer, which had formerly existed at this part. Every now and then also, I have heard from medical practitioners of my acquaintance, of a stricture of the upper part of the rectum, or of the sigmoid flexure of the colon having been discovered after death. Such cases, however, you may be assured are of *very rare* occurrence."†

"Any one who maintains that strictures exist at *ten* or *twelve* inches, and who pretends to be able to *cure* them, must be extremely *ignorant*, or *intentionally deceives* the patient."‡ He alludes in one of his lectures to a man, W. C., who had been treated by bougies for a stricture of the rectum, at the height of *thirteen* inches! It is needless to say, that the poor fellow after long and patient

* Syme, Op. cit., pp. 110-11.

† Sir Benj. C. Brodie, Lectures on Diseases of the Rectum, London Medical Gazette, April 4, 1853, p. 30.

‡ Syme, London Lancet, April 5, p. 356.

suffering was *not* cured of that stricture, for it was unquestionably demonstrated that *none* existed.

"The most usual seat is *two* to *three* inches from the anus; occasionally higher up, even in the sigmoid flexure of the colon; these cases are very rare, and their absolute existence has not generally been known till after death."*

"The situation in which we meet with strictures of the alimentary canal, is most commonly about the termination of the colon."†

"These, however, must be very rare cases, for all the best authorities declare the stricture to be almost universally low down."‡

"In the majority of cases which have fallen under my observation, the stricture has been situated between *five* and *six* inches from the anus, about the situation of the angle formed by the first portion of the rectum. Next in frequency, I have discovered the disease at the junction of the sigmoid flexure of the colon with the rectum."§

VII. Symptoms of Simple Stricture.

The symptoms of simple stricture may be very properly considered under the heads of *special* and *general*, or *local* and *constitutional*.

1. *Special or local symptoms.* From the very onset the patient's attention is attracted to a very *characteristic* symptom, which is a more or less severe degree of pain in the process of defecation, accompanied with an unwonted desire of straining; this is generally preceded by a constipated state of the bowels,—a prominent and long precursory symptom—the stools are scanty, and the matters voided taking on variable appearances, being either in small lumps and hardened, compressed, flattened, oftentimes of a diameter scarcely larger than that of a crow-quill, and discharged in a convoluted or spiral form. Again, there may be a diametrically opposite state of things, that of diarrhea, the fluid fæces being forcibly and almost involuntarily ejected, this last symptom is characteristic of the most advanced period of the disease; lastly, the two conditions, diarrhæa and constipation, may be present at one and the same time. A small portion, the crust of the hardened fæces which are retained in the rectum, becomes dissolved or diluted by the admixture of the intestinal mucus, and these matters are voided involuntarily: the practitioner might be led to suppose that the case was one of diarrhæa, when in reality it is one of *constipation*, various astringent remedies are administered, anodynes freely given to allay the pain and other abdominal symptoms, and yet the accumulation is allowed to increase daily; the physician is acting upon a pretended cause, and necessarily the patient dies either from abdominal inflammation, or from the great and sudden weakness certain to follow the evacuation of the enormous quantity of matters distending the intestinal canal.

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* Ashton, Op. cit., p. 289.

† W. White, Observations on Strictures of the Rectum and other affections, 3rd edition, Bath, 1820, p. 47.

‡ South, Chelius's Surgery, vol. II., p. 336.

§ F. Salmon, Stricture of the Rectum, 4th edition. London, 1830, p. 23.

Vidal (de Cassis)* relates that he was requested to see a paralytic patient said to have had diarrhœa for a very long period; he had been drenched with rice water, and even leeches had been applied to the abdomen to relieve the colicky pains. The rectum was examined and found distended with a mass of hardened fæces, which was removed, and immediate relief followed. There was here then constipation and diarrhœa, retention and incontinence, as around the mass of indurated fæces were liquid matters, which escaped from the anus at every instant. The patient complains of a feeling of itching, heat, and weight about the anus; there is frequently a discharge of semi-purulent or mucous matters, and the fæces are occasionally tinged with blood.

2. *Constitutional symptoms.* From a very early period of the affection the digestive functions become impaired, and we have present many of the symptoms of dyspepsia; more or less torpor of the liver, and hence the almost constant state of constipation; the tongue is coated, and the appetite very capricious; flatulency, and spasmodic pain or colic, in the abdomen, and frequently, from abdominal distention the free play of the lungs is seriously interfered with; the countenance has a dull sunken appearance, and, at a more advanced period, it is characteristically expressive of very severe uneasiness and anxiety, if not of constant suffering. There is more or less headache, and sleep is always disturbed; the action of the kidneys is impaired, the urine being scanty and high-coloured, and its discharge is frequently attended with pain; irritation of the bladder; pain sometimes at the end of the penis after micturition. In the female there is irritation of the uterus, accompanied with bearing-down or expulsive efforts; pains or cramps radiating around the pelvis to the back and down the thighs; at a more advanced period general debility becomes one of the most prominent symptoms.

If the index finger of either hand is well oiled, and very gently passed through the anus, it will in a great majority of cases come in contact, at a distance of from two to three inches and a half, with a hard, incompressible ring, having but a small perforation in the centre, through which the apex of the finger cannot be made to pass without very great force, and an increase of all the local symptoms. Should the stricture be situated at a greater distance than four inches, and, consequently beyond the reach of the finger,—happily of rare occurrence—recourse must be had to the use of rectum bougies, or what is preferable, to the bulbous or silver ball form of this instrument, as it is less liable to become entangled and arrested in the folds of the mucous membrane, at or about a level with the promontory of the sacrum, or the junction of the first portion of the rectum with the sigmoid flexure of the colon, opposite the left sacro-iliac symphisis. This examination is by no manner of means easy of performance, or satisfactory in its results, as cases are not wanting where stricture had been supposed to exist, and treated as such, and after death no stricture has been discovered. "If you employ the force necessary to make the bougie penetrate through the stricture, is there no danger of its penetrating the tunics of the intestine instead? This last is no theoretical objection to the use of these long bougies in diseases of those parts. I will not say that I have *seen* the patients, but I have

* Traité de Pathologie Externe, 3me edition, vol. IV., p. 367, Paris, 1851.

been *informed* on good authority, of not less than seven or eight cases in which this frightful accident occurred, and the patients died in consequence."*

VIII. Symptoms of Spasmodic Stricture.

This form of stricture is of rather frequent occurrence, and is more particularly seen in women. It often results from derangements of the *primæ viæ*, and is frequently an accompaniment or symptom of hemorrhoids or fissure. There is great difficulty in defecation, attended with much straining, and pain of a sharp or spasmodic nature, during and long after the evacuation of the bowels, and in some cases it is almost constant. The passage of the finger through the sphincter aggravates the pain, but the moment it has passed beyond it, the bowel is found to be in its normal condition.

IX. Symptoms of Malignant Stricture.

This variety of stricture, like malignant disease in other parts of the system, generally occurs after the middle period of life, is more prone to attack the female sex, and is often a concomitant of disease in some remote organ. It has been observed that malignant stricture is often slow and very insidious in its progress, many of its ordinary symptoms being so feebly marked, that life may be prolonged for many years. At first the patient will complain of some slight degree of uneasiness about the rectum and anus, and some little difficulty in the process of defecation; then there may be weight and pain with heat in the part; again there may be scarcely any difficulty at stool, if the disease is of the soft, or hæmatoid character, and implicates but a limited portion of the bowel; the fæces are flattened, narrowed, and have the other appearances seen in simple stricture, if it is of the true scirrhoid form. There is a discharge of fetid bloody muco-purulent matter, almost always more or less constant, and accompanied by increased pain, which is more of a burning, lancinating character. The pain radiates round the pelvic and lumbar regions, through the nates down to the thighs; at this advanced period of the disease, every evacuation adds to the measure of pain which is now almost unremitting. There may be obstinate constipation at various stages of the disease, though the opposite condition is more likely to prevail, from the admixture of the solid feculent mass with the morbid secretions; tympanites.

Sooner or later we observe the setting-in of the characteristic symptoms of carcinomatous disease, the sallow, anxious, and unhealthy aspect of the countenance, so strongly pourtraying severe mental and bodily suffering; there is general disturbance of the functions, and depression of the nervous power.

If an examination is made, this must be borne in mind in a diagnostic point of view, there will be an increased if not a copious discharge of blood, a thing that does *not* occur in simple stricture, and if the disease is within reach of the finger, it will be found in different cases to present variations as to its position, form, and extent. Sometimes it presents itself under the form of a solid, hard, and incompressible tumour, implicating more or less of the intestinal canal, and

* Sir B. C. Brodie, Op. cit., p. 31.

having all the external characteristics of scirrhus; at other times the stricture imparts the soft and pulpy feel of fungus hæmatodes; again, there may be a number of small tumours of variable consistency, just above the anus, and occasionally obliterating the canal of the intestine.

(*To be concluded in our next number.*)

ART. XXXII.—*Tetanus and Poisoning by Strychnine contrasted*, by JAMES A. GRANT, M. D., Attendant Physician General Protestant Hospital, Ottawa.

The two following cases having recently come under my observation, I considered them worthy of publication, more particularly on account of their very characteristic parallelism; the symptoms resulting from the poisoning by Strychnine, resembling those of *Tetanus*, in the present instance of a traumatic character.

CASE I.—Duncan Kennedy, æt. 27 years, single, short stature, thin, well formed and from youth has been subjected to no febrile or inflammatory affections, principally occupied in farming operations. On the 15th March, while engaged in cleaving wood a small wound was accidentally produced in the great toe, which at other times would have been passed over unnoticed. Mr. K. fearing the occurrence of tetanus and being aware of its production, frequently from trivial causes, as an unusual precaution remained within doors two days, and up to the 28th March performed his accustomed duties. On the evening of that day when engaged at singing school, for which he possessed more than ordinary ability, he was noticed to yawn frequently, during which action and that also of singing, he experienced considerable difficulty in opening his mouth owing to a partial spasmodic contraction of the masticatory muscles.

30th 10 P. M. First visited Mr. K., found him stretched on a lounge, his head, inclining backwards, complaining of stiffness in the jaws and pain in the epigastrium, pulse 95, full, skin warmer than usual, inability to arise; and when placed in the erect posture, increased acceleration of pulse and profuse perspiration took place. The bowels had been freely opened by a purgative the previous day. Muscles of chest, back and abdomen felt hard and firm upon pressure, being devoid in a measure of that intensibility and contractility which would take place in a state of health, during the performance of the respiratory process.

Ordered a hot bath, poultices to the toe frequently during the night, Croton oil to the spine as a counter-irritant also R. Assafœtidæ, gr. xxiv.

Pil. Hydrarg. gr. xxx.
Pulv. Opii, gr. vi.

Misce, et divide in pil. xii, quarum capiat i secunda hora.

31st 8 A.M. Visited Mr. K. in conjunction with Dr. Van Cortlandt, their family physician, for whom I officiated the previous evening. Jaws closed to within half an inch, can talk distinctly without great difficulty; abdomen hard and somewhat full. Trunk slightly arched backwards and the muscles on either side of the

spine more rigid than the previous night. Muscles of the arms and legs unaffected, skin bathed with perspiration and the skin more pallid than usual, pulse 100, respiration hurried and difficult; clonic spasms came on about every half hour, but occasionally passed over a period of one hour. Rested about two hours during the night and voided urine in regular quantity, rather high coloured but passed without difficulty. Ordered Strychnine $\frac{1}{16}$ gr. every two hours and to be carefully watched.

9 P. M. The symptoms of trismus more marked and the contraction of masseters aggravated into more painful spasm, extending to the muscles of throat and jaws, rendering mastication impracticable and deglutition difficult; the countenance depicted all that anxiety and dread incidental to this formidable malady. Upon being raised to have the bed made by the attendants, considerable increase took place in the spasmodic contraction of the lumbar and dorsal muscles, the head during each contraction being forcibly driven backwards. Enema cum Ol. Ricini ℥ ij was administered after the action of which considerable relief was experienced. To continue mixture during the night at intervals of three hours.

April 1st 9 A. M. No great alteration as regards the titanic symptoms; slept several times during the night, at which periods of repose the spasms were not observed; when awake they were more frequent but not so severe. The last evacuation not being perfect, a second enema was ordered with directions to be repeated if necessary, and beef tea given as nourishment, in small quantities, but frequently.

9 P. M. Passed a restless day; paroxysms not so severe; his face has a peculiar dark jaundiced hue and those in attendance complain of the disagreeable odor of his breath, pulse 110, skin cool, during the day perspired freely. No evacuation from the bowels. Discontinue mixture. Ordered

R. Olei Tiglii gtt. j.
Mucilg. Acacia ℥ j.
Aquæ puræ ℥ j, Misce, ut fiat haustus statim sumend.

Ext. Aconiti applied epidermically to the spine and chloroform to the abdominal parietes.

April 2nd 10 A. M. The patient obtained some sleep during the night, presented a restless and excited appearance, complained of an uncomfortable feeling in the throat and abdomen which he attributed to the non action of the oil. An enema was again administered and an evacuation obtained although not of a very feculent character. When the enema was being administered, the sphincter ani contracted to its utmost extent, considerable pain was experienced and the spasmodic paroxysms were more frequent and severe than formerly.

3rd 9 A. M. All the symptoms were increased, there was a deep hollow at the scrobiculus cordis and increased pain throughout the diaphragmatic region. The abdomen was forcibly thrown forwards and was almost immovable during respiration, pulse 120, laboring and constricted, perspires freely. Bowels acted upon again by a stimulating clyster. At this stage of proceedings it was evident that an alteration in treatment was necessary, although strychnine had been administered according to the recommendation of Lüders,* in order to

* Dunglison, New Remedies, p. 661.

meet the exigencies of this case which was now beyond doubt one of acute eccentric tetanus rapidly increasing in intensity and demanding the most vigorous treatment. Having observed in the last number of Braithwaite's Retrospect (part 42) the treatment of this formidable disease by Tincture of Aconite and recollecting the well known influence that it exerts in destroying muscular irritability, also its powerfully sedative effects on the nervous and vascular systems, we were led to hope that in the present case its administration might be attended with beneficial results. Fleming's Tincture was given at first, 4 minims every two hours, except when the patient was inclined to rest. The diet throughout was the most nourishing that could be administered, conjoined with wine at frequent intervals, the bowels being constantly attended to by frequent injections.

8 P. M. There appeared to be a marked benefit evinced by a reduction in the severity of the symptoms generally, had some comfortable and refreshing sleep and considerable subsidence of irritability, system not appearing to suffer from the aconite, pulse 100, more regular, and the muscles which were previously firm and unyielding, became more pliable and extensible during the performance of the various organic functions. On the 4th so marked was the benefit derived from the aconite, that the patient during our absence walked into the adjoining room with comparatively little assistance. Such efforts were strictly forbidden, At this stage of proceedings the aconite was not given so frequently, being guided in its administration by the urgency of the symptoms.

4th 9 A. M. An entire change took place in the phase of affairs. On entering the room a most violent spasm was observed, longer in duration, more painful as to its effects and more lasting in its influence upon the system; during the night this sudden and unexpected alteration supervened. The spasmodic rigidity of the muscles of the jaw, neck, back, abdomen and lower extremities very violent and continuous, being now in a perfect state of opisthotonos, had drawn back the head with a perfect inability to raise it, the back forming an arch under which the hand could be passed without difficulty. The least noise produced by persons entering the room, opening the door or even the act of swallowing his saliva induced a severe fit of convulsive shuddering; skin cold and covered with a clammy sweat, pulse 120 weak and intermittent. The aconite had been discontinued some hours previously and diffusible stimulants in conjunction with strong beaf tea, administered. The action of the heart became irregular, the diastolic murmur not being in consonance as to time with the systolic action, chest clear on percussion: the origin of several of the abdominal and thoracic muscles was well defined. During the severe paroxysms, an intensely exaggerated risus sardonicus was observable.

An unfavorable prognosis having been given owing to the circumstances of this case, during our absence the patient was placed under Homœopathic treatment. On the evening of the 7th he expired, muscular rigidity gradually subsiding as the real disease advanced to its fatal crisis.

CASE II.—Poisoning by strychnine; quantity taken 3 grains. Symptoms observed. Period of death. 12 hours from the period of its reception.

Mr. J. C. F. at 76 years, tall, muscular, well-built, exceedingly healthy, widow-

er having no family. Within the last few months has been known to imbibe freely in consequence of which occasional fits of despondency were evinced and in order to shorten worldly troubles, resolved on self-destruction by this potent means. Dr. Henderson was consulted a few days previously by Mr. F. who inquired most particularly concerning the influence that strychnine produced upon the system. Being firm in his resolve, he called upon Mr. McPhail, chemist, and procured 3 grains to poison a dog that disturbed his neighbourhood.

April 4th 1 P. M. Dined at the hotel of Mr. Good, and after his meal was observed to mix and swallow this powder; two days having elapsed since its purchase.

Having accomplished *the act*, he walked out, a period of three hours; slept from 4 to 5 P. M. and shortly afterwards was discovered lying stretched on the floor, evincing considerable anxiety and restlessness and in a few moments he became quite rigid. I was called upon, but being from home did not visit Mr. F. until 11 P. M. On entering the room I found him stretched on his back, countenance expressive of the most painful suffering and distress, still not complained of; his frame shaken by frequent convulsive spasms, limbs extended and rigid as a statue, arms spasmodically bent at the elbows and drawn over the body, feet distorted, soles inclined to each other and concave, breathing short hurried and laborious, pupils DILATED, face and lips livid. Slightest movement of his body excited violent spasm. Inability to turn on either side, having no control over his extremities; in possession of full consciousness and when spoken to, confessed his guilt and affirmed that strychnine was taken. Questions answered with clearness and precision, differing only from his ordinary mode of speech by being slightly hurried. The jaws were so close that the tube of a stomach pump would not enter, and great difficulty was experienced in administering an emetic. At this period the poison was absorbed and displayed its physiological action upon the system, pulse small and contracted, great sensibility over the whole body. An attempt was made to place him on his side in order to promote emesis; this however was ineffectual. Being restored to his former position, a sudden change took place, an unusual pallor was marked in his countenance; the muscles of face, neck, trunk and extremities appeared as if inclined towards relaxation, the respiration was now quiet and profuse perspiration oozed through the entire tegumentary surface. This quietude was soon followed by a new phasis of affairs; a most violent spasm supervened, drawing the entire body together, distorting every feature in the countenance (which assumed an indigo hue,) arresting both respiration and circulation and continuing thus, until general relaxation a few moments afterwards took place, life being prolonged for the unusual period of 12 hours from the receipt of *the poison*. *Post-mortem appearances* 12 hours afterwards. Tongue, gums and lips violet colored, fingers and hands clenched, the toes retained in their formal abnormal position, and the whole body stiff and unyielding. No section or analysis was made.

Case I.—*Traumatic Tetanus.*	Case II.—*Tetanus from Strychnine.*
1. The result of a wound.	1. The result of a poison introduced into the system.
2. Symptoms developed slowly.	2. Symptoms developed rapidly.
3. Stiffness of the muscles of the jaws first observed, and subsequently the muscles of neck, trunk and extremities.	3. Stiffness of all the voluntary muscles simultaneous and rapid.
4. Opisthotonos after some days.	4. Opisthotonos within a short period.
5. Pupils generally contracted.	5. Pupils gradually dilated.
6. Decided intermission in the symptoms.	6. No intermission in the symptoms.
7. Risus sardonicus not well marked.	7. Risus sardonicus developed to the utmost extent.
8. No particular contraction of the hands and feet.	8. Contraction of the feet most marked and the arms thrown over the body.
9. Previous to death, muscular rigidity not so painful and gradual subsidence of the organic functions.	9. Previous to death, most marked muscular rigidity and sudden subsidence of the organic functions.
10. Spasms increased by movement of the entire body.	10. Spasms increased by even the slightest movement of a limb or by coming in contact with the tegumentary surface.

Ottawa, April 27th, 1861.

ART. XXXIII.—*Extensive Scald in a child—recovery under the use of tepid water.* By G. E. Fenwick, M. D.

On the afternoon of the 17th March last, I was called to see a child aged 2½ years, that had fallen into a pot full of boiling water. A few minutes before the accident a large preserving pan full of boiling water had been removed and placed beside the stove on the floor, the water was in active ebullition before being removed, so that the temperature could not have been many degrees below 212° at the time of the accident. The little child appeared to have backed into the pot, for when discovered it was sitting in the boiling water and screaming lustily; it was instantly removed and stripped. On examination I discovered the left arm and left breast considerably scaldded, the whole surface of the abdomen was covered with large blisters, which from its struggles were soon burst, the cuticles hanging in shreds; the entire circumference of the thighs was stripped, the front of both legs, and dorsum of each foot blistered; the clothes seemed to have protected the buttocks and generative organs which were merely reddened—the agony was intolerable. I immediately prepared a bath of water at about the temperature of summer heat, and had the foot of the little sufferer placed in it. I then prepared bandages of cotton wool, soaked thoroughly in the

water and applied them, the relief appeared to be instantaneous. I gave an anodyne and instructed the mother to keep the parts constantly bathed with tepid water. I visited the child at the expiration of two hours, and found to my satisfaction that she had slept. She then appeared comfortable, did not complain of pain, the pulse was frequent but moderately full. I ordered the anodyne to be repeated, and stimulants to be given, if necessary, throughout the night. The following morning she was feverish, having passed a restless night. She had slept well at intervals, but whenever she stirred she would awake apparently as though the motion had caused pain. She passed water freely, but the bowels not having acted, I ordered a dose of oil to be given the following morning, which acted freely. I continued the anodyne, giving gtt. jj. of Sol. Morphiæ every three hours. The case continued to progress favourably up to the 14th day, when she was seized with a violent convulsion; this, however, was relieved by a free purgative after having evacuated the stomach. No further trouble ensued, and the little thing left her bed in three weeks from the date of the accident. I may mention that suppuration was considerable, at least the discharge had all the character of pus, but I continued the water dressing throughout, nor did I remove the bandages originally applied until all had apparently ceased. I give the details of this case, which excited much interest in me at the time, having but a few days previously read of the successful treatment of an extensive scald on somewhat similar principles. There can be no doubt the water protected the surface from the action of the atmosphere, and converted it into a healthy granulating sore, which lacked the indolent character of sores from a like cause.

Montreal, 70 Craig Street.

ART. XXXIV.—*Ovarian Dropsy cured by Injections.* By GEO. BURNHAM, Surgeon, Peterboro', C. W.

Miss P. aged 22, about two years before I saw her, and whilst living as housemaid with a respectable family in the State of New York, had ovaritis. Six months after, she noticed a small tumor presenting itself, which continued to increase slowly but regularly up to the time when I saw her. Menstruation occurred for the last time about six months before I was called in. She was very much emaciated, her general appearance cachectic and could with difficulty walk about the house; the abdomen was greatly distended, in fact distended to its utmost capacity; she expressed herself as feeling as if "she would burst." I told her that I felt a degree of unwillingness to undertake her case, as she had been told by some medical men that there was no chance for her life, and that she should not allow any one to persuade her to submit to any operation, as it could only result in expediting the fatal termination. She very resolutely answered, that she much preferred death to her present wretched condition: and that as I felt that there was some chance of a cure, she most earnestly desired that I should make an effort; that she must soon die as she was, she could only die if the effort proved abortive. After a careful examination I felt convinced that the cyst was "unilocular;" the round fulness of the abdomen was quite as uniform as

in ascites; one side being equally full as the other. I tapped and drew away about two thirds of a pailful; in appearance, yellow, thick and very fetid. I then injected a half pint of port wine with ʒj Iodide of Potassium which caused no pain and did no good; this I injected through a canula. I will briefly state that I injected the cyst seven times within the space of two months; when it became adherent and a complete cure was effected. There are a few particulars connected with the injecting process that deserve some notice. After having injected the cyst three or four different times in the same place a fistulous opening became established; though it did not give exit to the fluid as it became secreted, but as soon as it so far filled the cavity as to cause moderate distension the scar, which seemed to plug up and cap over the puncture, would give way and let out a considerable quantity; enough to leave the tumor comparatively flaccid. It was through this opening that I always injected, by pushing through it a good sized silver catheter. I thoroughly washed out the cyst with warm water until it seemed well freed from its contents, before I injected. Prof. Simpson insists very much upon the necessity of excluding the air; but owing to the want of the necessary instruments I could not prevent its ingress; and I must say that I did not see any pernicious results from it. On two occasions the air admitted and the gas secreted, caused a highly tympanitic condition, which I easily drew off by pushing the catheter through the opening, which had become plugged up. The injection was made up of Iodine ʒ ss. Iod.Pot. ʒ i. spt. vin ʒ ss. Aqua font. ℥ viij. which was injected and kept in until it caused pain; at the same time I kneeded the belly over the cyst that the injection should reach every part of its surface; I also turned her from side to side. After allowing it to remain until the above effect was produced I drew it away; except the last time I injected, when I allowed a full half to remain. This seemed to complete the cure, which had however been gradually progressing from the fourth injection. During the local treatment, I paid as much attention to the general management as circumstances would admit; for she was at times most unwilling to take medicine; and did occasionally stubbornly refuse. Her circumstances being poor the best food could not always be obtained or the most judicious nursing secured. One great advantage attached to the Iod. Pot. is, that it counteracts the tendency of Iodine to coagulate the fibrous products that may exist in the contents of the cyst, and which might, with the Tr. Iodine alone, form a material that would almost totally close the opening against its exit.

Peterboro', C. W.

REVIEW DEPARTMENT.

ART. XXXV.—*Annals of the Botanical Society of Canada.* Vol. I, part I, from 7th December, 1860, to 8th March, 1861. James M. Creighton, printer, Kingston, 4to. pp. 60.

This energetic society, whose establishment in our editorial columns we chronicled but a few months ago, now appears before the public with the first

quarterly record of its work, and a goodly one it is. If it continues its career and displays the same amount of inherent vigour it will speedily take rank as the foremost worker in the cause of natural science in these Provinces.

The feuilleton opens with the proceedings connected with the inauguration of the Society, held on the 7th December 1860, at which some interesting addresses were read by the very Rev. Principal Leitch, D. D., who occupied the chair, by Dr. Lawson, and Dr. Litchfield, after which a large number of gentlemen signed the laws and became original fellows of the Society, these laws having been previously prepared, read and agreed to.

The second meeting was held on the 11th January, when the officers of the society, and the honorary members of it were elected; and after the reception of donations to the Library were received and acknowledged, and a brief congratulatory address by the chairman, a paper was read "on the Cornus Florida," by Prof. George S. Blackie, Nashville, Tennessee, another "on the Botany of the Red River Settlement, and the old Red River Trail," by Mr. John C. Schultz, F. B. C. S., and a third, being "Contributions to the Local Flora of Kingston," by A. T. Drummond, Jun. A. B.

At the third meeting held on the 15th February, a very interesting paper by Mrs. Dr. Lawson was read, "on the Silk worm, and other fibre yielding insects, and the growth of their food plants in Canada." This paper shows a very considerable amount of patient and original research. After some remarks "on the Hubbard Squash," by Mr. Thomas Briggs, jun., a paper was read from and by W. Lauder Lindsay, M. D., F. L. S., Hon. Mem. Bot. Soc. Can., on "What to observe in Canadian Lichens." The communication was of an eminently practical character. Professor Lawson then read a letter on "the Tea culture in India," and exhibited specimens of a new dye, of great richness obtained from an insect, of the Coccus Tribe found by him on the common Black Spruce (Abies Nigra, Poir) in the neighbourhood of Kingston. It closely resembles Cochineal.

At the fourth meeting held on 8th March, after the transaction of ordinary business, a valuable and interesting paper by the celebrated American botanist Asa Gray, M. D., being "a note on the Genus Graphephorum, Desv., and its synonymy was read;" and a "list of plants collected on the Island of Anticosti, and coast of Labrador in 1860," by John Richardson, accompanying an exploring party of the Geological Survey of Canada, was laid before the meeting.

We have thus shown, by an examination of its own proceedings, that the originators of this Society have struck a chord in the public mind which has cheerfully responded. The success so far of the Society proves that such an organization, such an association, was needed to direct individual enquiry into the proper channel. Nor need any of the other sister scientific societies fear aught from the prosperous commencement of the present one. Let each work in its own sphere, and the whole becomes a labour of love, in which he gains the most, who works the hardest. The success of the one should prove and be the stimulus to increased exertion of the other. We confess that we are exceedingly rejoiced to see the Botanical Society of Canada succeeding so admirably. We had not the slightest idea that there existed in our midst so much taste for the natural sciences, as we have seen the last few years give evidence of. We are pleased

to see it, for we feel persuaded that in Canada, there is to be found much to reward the exertions of an industrious student whether in the zoological, botanical, or mineralogical or geological branches of science. We certainly desire for the Botanical Society of Canada, the highest measure of success which its most ardent supporter could wish for.

ART. XXXVI.—*Lovell's General Geography for the use of Schools, with numerous Maps, Illustrations, and brief Tabular Views.* By J. GEORGE HODGINS, LL.B., Author of "Geography and History of the British Colonies." Montreal: John Lovell. Toronto: R. & A. Miller. 1861, 4to., pp. 100.

We are sensible that we are travelling somewhat out of our proper path in noticing the volume now before us, but the interest which we, and our readers generally, must feel in the education of our children will, we are satisfied, prove an abundant excuse.

Any Canadian who has been educated in Canada exclusively, or who had received a partial education in the mother country, must have been astonished at the quality of the works upon Geography placed in his hands for instruction. While no one can doubt the value of such a work as Ewing's Geography to the inhabitants of Great Britain, as it dwells so fully upon the British Isles and the great European kingdoms, yet to the student who desires to learn something of the Geography of North America, and especially of that part of it called British America, one unquestionably of the finest territorial possessions of the British Crown, the work valuable as it is, will be found to be nearly valueless. Thus out of 300 pages of the volume which may be considered as exclusively devoted to Geography proper, that of the United States is compressed into *nine* pages, and that of British America into *five*, and it is probably to this very circumstance that is attributable the gross ignorance which prevails in the mother country in regard to these fine provinces. Happily the facility in intercourse between the two continents, which has been established by the steam navigation of the Atlantic, has dissipated a great deal of this ignorance, but still the youth are educated in no better manner, as we believe that this work is still the standard one used in schools. In this respect then, the volume before us is a decided improvement upon its predecessor, as while giving to the British North American Provinces, a prominence which adapts it especially to our own rising generation, it metes out to all countries a due share of attention proportionate to their importance.

But there was another unfortunate circumstance under which our own children labored, and it consisted in the fact, that the price, demanded for Ewing's Geography and Atlas, utterly precluded their employment in any but the higher schools, while the minor schools, which dot these Provinces by thousands, were compelled to seek this source of instruction for the children which frequented them, from American publications, and consequenily Morse's Geography became very generally employed, simply because no better and cheaper one was obtainable. In this work, however, the author has judged of every thing by the

American standard. True to the instincts of his own nationality, the United States of America would appear to be the country whose geographical and historical peculiarities should be pre-eminently acquired by the student, and no opportunity is lost either by description, or a badly executed wood-cut, of exhibiting the remarkable prowess and heroism of the American armies during the revolutionary war, while every incident connected with battlefields on which our own fathers, who formed the militia of this Province, in conjunction with a fraction of the British army, shed their blood and came off victorious, is as religiously withheld. Thus were our children taught to look upon the American constitution as the type of perfection, her statesmen and orators superior to any which the world could produce, her heroes and soldiers matchless for deeds of daring and invincible, and the country which gave them birth immeasurably superior to any other under the sun. Thus as it is an undeniable fact that the early lessons taught in youth are seldom if ever effaced from the mind, would the American ideas and views of politics and past history become vividly impressed, and it is certainly due to extraneous circumstances, utterly unconnnected with youthful tuition, that there happens to be found in these Provinces a loyalty to the Throne of Great Britain, fully equal to that in the most favoured spot in Britain itself. In Lovell's Geography we detect nothing of this country laudation and self-glorification, so that in the two views of the work which we have laid before our readers, it may be said to be as cosmopolitan as any such work can possibly be.

The introductory chapter which is subdivided into the three sections of Mathematical Geography, Physical Geography, and Political Geography, is remarkable for the conciseness and preciseness of the terms employed under the different headings, and for the facts enumerated, while under the head of General Geography, is given the peculiarities of the various territorial divisions which constitute the countries of the earth. The amount of information, whether of a general or specific nature, given under this division of the work, is enormous. Thus it not only specifies the peculiarities for which each country is remarkable, such as its agricultural, or mineral or fictile products, &c., but also its physical features, its climate, its educational capabilities, its divisions into districts and counties, with an enumeration of the principal cities or towns, and their relative populations up to the latest date, as well as other objects of interest appertaining thereto. Merely to say that Mr. Hodgins, the able and accomplished author of the volume, has executed his work well, is we think but paying him a poor compliment. He has undertaken and discharged a duty which we think few could have achieved with equal success. He has established for himself, by his devotedness and zeal, his "monumentum ære perennius," for we feel assured that this volume will assume a first if not the first rank among works of the kind in educational institutions.

Besides the teacher and the scholar, the volume presents attractions to the merchant, the professional man, and even the mechanic, as the information which it contains is so varied, as very nearly to constitute it a Gazetteer.

It is adorned by well executed coloured maps, and profusely illustrated by engravings, the latter rendering it peculiarly attractive to the young scholar.

With the exception of the late lamented Hew Ramsay, Esq., few have done more towards bringing out a class of school books, with especial adaptation to the wants of our Canadian youth, than Mr. Lovell, and we most sincerely wish the latter gentleman a most handsome return for the great outlay, to which he must have been subjected, in bringing out the volume which has elicited these remarks, and which we are astonished he can afford to sell at the low price of one dollar.

PERISCOPIC DEPARTMENT.

CASE OF RUPTURE OF THE HEART.

L., aged 66, lost his wife three months ago, and grieved profoundly after her. Tolerably stout for his years, although very intolerant of cold, he thought he had on the 13th September caught cold, as on the night of the 14th he was ill. On Wednesday he felt spasmodic pains under the sternum, which increased periodically; his spirits were depressed; he had no fever. He now applied a sinapism. On my visit on Thursday (the 15th), his state was the same as on the preceding day. He went up and down the room, and complained of pain below the left nipple; the pulse was quiet, regular, and on accurate examination nothing wrong could be discovered either in the heart, lungs, or abdomen. The diagnosis was obscure. He was ordered a tablespoonful of castor-oil. A soothing plaster was applied to the side, and a teaspoonful of hydrocyanic emulsion was given every second hour during the day. On Friday the patient was better. He was directed to keep quiet, and a quarter of a grain of morphia was given in the evening. He lay quietly on Saturday, but on Sunday he dressed himself and got up. Monday he went out, but was worse in the evening, and on Tuesday morning I was again called to see him. On my forenoon visit the patient was in bed, but the pains were increased. The pulse was small and frequent; the cardiac sounds were weak and distant; dulness was rather increased over the heart; the pain was great, but the patient raised himself easily in the bed. As there had been no motion for three days, a gentle laxative was prescribed. An hour after I had gone, the patient was suddenly seized with a sensation of imminent suffocation, the chest laboured violently, the countenance became livid, and after a quarter of an hour's suffering he died.

The body was examined the next day by Professor Duben, who will give a more particular description of the heart, which was found to have been ruptured. The patient, therefore, died in the actual sense of the term of, a "broken heart."

Dr. Duben read the following report of the post-mortem examination:—

The pericardium contained a couple of pounds of serum and about an equal quantity of coagulated black blood. Near the apex of the left side of the heart, about three-quarters of an inch from it and half an inch from the septum, was found a rupture in the cardiac wall, half an inch in length, like a chink, and filled with a coagulum. It passed obliquely through the outer muscular layer of the heart and the pericardium; internally its extent could not be so accurately traced, in consequence partly of a coagulum lying close to the inside, partly of the peculiar nature of the wall. The coagulum in question lay as a round lamina, of about one and a half inches in diameter, closely adherent to the endocardium, and between the trabeculæ, and in the depressions in the walls, so closely that its boundaries could not with certainty be defined, nor could it be separated from those parts. This coagulum presented on its surface turned towards the cavity of the heart the ordinary pale reddish yellow colour of fibrin, but

lost it gradually out towards the wall of the heart. It was there in spots greyish yellow, light red, and dark brown, in consistence it was in one place firm, in another puriform, and passed imperceptibly into a colour and consistence exactly similar to those of the wall of the heart. The latter was, through an equal extent, about one and a half inches, softened, forming a pulpy brittle mass, the muscular filaments being, on microscopic examination, found to be destroyed and replaced by a finely granular detritus here and there mixed with fat, though they still retained their general form; in some places were found small foci, perceptible even to the naked eye, where merely a trace of connective tissue still remained and perforated the otherwise totally degenerated mass. In some parts coagula of blood derived from within were found imbedded. The necrotic change became more perceptible closer to the portion which had given way, and so coalesced with the inner part of the rupture that the extent of the latter could not accurately be determined. On examination of the coronary artery this vessel was found to be tortuous, partly in consequence of senile atrophy of the heart, partly from piecemeal dilatation, some portion of its walls being abnormally thin, and others abnormally thick. The anterior branch contained an old plug, of perfectly white color, and completely perforated, at least in its upper extremity. It commenced some lines beyond the boundary of the softened part and extended in towards its centre, where it could no longer be traced, and where it became more obstructing, and was also found to be puriform.

There can be no doubt that this hollowed plug was formed long ago, and gradually produced the softening I have described, as it would seem, without giving rise to any symptom. The period comprised in the history of the case given by Mr. Malmsten relates merely to the rupture; for the latter, in this instance, as in many others, occured not in a moment, bui piecemeal, and at several short intervals.—*Dublin Med. Press.*

SUCCESSFUL TERMINATION OF PURPURA HEMORRHAGICA.

By Frederick Bedford, M.D. Late house Surgeon to Bellevue Hospital.

I was called to see, on March 7, John K———, æt. 27 years, who had been attacked suddenly with an epistaxis four days previously. From the commencement of the patient's illness until my first visit he was attended by a physician, who succeeded, after a good many efforts, in checking the hemmorrhage by the injection of tinct. ferri mur. into the nostrils, plugging the anterior nares. A day or two after hæmaturia and bleeding from the bowels were prominent symptoms, the patient having five or six passages of clotted blood in the course of the day. About the same time hemorrhagic spots characteristic of purpura were visible on the face, chest, and arms. I found him with a pulse of 140, feeble, intermittent, dry tongue and coated. The following mixture was then prescribed:—℞. Spts. terebinth., acid sulph. dilut., āā f℥ ij; mucil. acaciæ f℥ ij. M. Also equal parts of brandy and water in small quantity. Patient became very much annoyed with spitting blood, which came from the posterior nares, and in order to remedy this he was ordered to eat plentifully of pounded ice. Inasmuch also as his respiration was oppressed by the formation of a coagulum in the fauces, the mass was removed shortly afterwards by a long polypus forceps, affording him immediate relief. The following day the pulse increased to 159, and was very feeble; bleeding from the bowels and kidney continued, and tannic acid in small doses was accordingly ordered in addition to the other means of medication. *March 9th.*—The turpentine produced strangury, which was relieved by powders composed of pulv. doveri hyosciam. and camphor gr. i. each. *March 10th.*—Patient was very feeble, pulse 155. There was great difficulty in breathing, from excessive dryness of throat, caused by the anterior nares being completely plugged with a coagulum. He was unable to swallow unless having previously moistened the lips and mouth with cold water; discharge from bow-

els somewhat diminished; hæmaturia continuing, strangury relieved; no change in treatment. *March 11th.*—Patient became somewhat delirious; complained principally of the parched condition of his tongue and throat, so that I thought it advisable to remove the plug from his nostrils. This I succeeded in accomplishing, not however without some difficulty, affording him great comfort. Pulse 155, and intermittent. Quinine and a more generous diet was directed; when the blood in the stools and urine gradually became less in quantity until the 16th, when it disappeared altogether, the pulse decreasing to 108 per minute, and acquiring more force. From this the patient became rapidly convalescent.—*American Med. Times.*

CHLOROFORM INTERNALLY.

Chloroform is employed not only as an external application in virtue of its anæsthetic action, but is also given internally in some cases; thus, in some patients in whom sleep cannot be induced by opium, it is found to act very beneficially in its internal administration. The density of chloroform and its insolubility in the ordinary menstrua, are objections to its employment attended with much inconvenience. M. Bonnet has made some experiments from which he determines that glycerine is the best vehicle which could be found. Equal parts of chloroform and very pure glycerine are mixed in a mortar, the mixture is then gently agitated till the drops of chloroform are no longer perceived; the other ingredients are then added, and the result is, a clear liquid combining all the principles of the agents in suspension. We know that glycerine has no sensible effect on the animal economy when introduced into the digestive organs, and the preparation of M. Bonnet can, therefore, be used with satisfation.—*Dublin Med. Press.*

HAS DEATH EVER BEEN PRODUCED BY INHALATION OF SULPHURIC ETHER?

Cases of death from the immediate effects of the anæsthetic inhalation of ether, are generally believed to have in a few instances occurred, and some statistics of deaths from anæsthetics include such cases: but the actual records of instances in which death is clearly attributable to the inhalation are not to be found. It may have been difficult in some instances to decide whether a death, whilst under the influence of ether, was owing to the anæsthetic or to causes preëxistent or unconnected with its administration. Ether has, perhaps, often been given to sufferers in an extreme condition, or even in *articulo mortis*, and the anæsthetic sleep been quietly merged into the sleep of death, without the termination having been at all hastened by the inhalation. Its use in producing euthanasia may have caused death to be attributed to it. In a recent case in this city, in which respiration for a time ceased and death seemed imminent, whilst a patient was fully etherized, some substance which had regurgitated from the stomach and apparently entered the larynx, was fortunately expelled by a violent succussion of the chest, and at once all was right again. If, in this case, death had actually occurred it would certainly have been attributed directly to the anæsthetic, unless an autopsy had revealed the real immediate cause.

The continued occurrence of deaths from chloroform, which are now counted by hundreds, has shaken confidence in it as an anæsthetic for general use, and renewed the interest in sulphuric ether. This mortality is admitted to be uncontrollable; it has occurred whilst the chloroform was administered by the ablest and most cautious surgeons, and some of the most vigorous patients have expired after drawing but a few breaths of the vapour. No surgeon can operate with ease and confidence whilst he knows that he is liable, during an operation, to be startled by seeing his patient's face blanched with a deathly pallor, his chest collapse, and respiration cease. The object of the circular

of the Boston Society is a good one. If ether is amenable to the same fatal accidents as chloroform is, it is well for us to know it. If, in the innumerable instances of its use, careful or reckless, in old or young, and in every condition of the human system, it has destroyed no life, let it have its credit as a priceless blessing, and let the fact be proclaimed. In Europe, before the use of ether became general, chloroform was announced on authority as its superior, and the attractiveness and convenience of the new anæsthetic spread it rapidly in favour. In this country chloroform has never been generally adopted, and the last few years have seen its use, as a general anæsthetic, rapidly declining. In Europe its use soon became universal, and there the American discovery of anæsthesia by inhalation seems eclipsed and forgotten in the Scotch suggestion of chloroform. But the use of chloroform has met with a check which will not be removed until more of its physiological action is known, and the mystery of its appalling fatality comprehended and controlled. A mixture of ether and chloroform, as first used and recommended by Dr. Henry Smith, is increasing in favour in this city, and has thus far seemed safe. It would be well to know whether, with the apparent advantages of this mixture safety can be insured, and the queries of the Boston Society include ether in whatever way combined. It is hoped that the circular will be replied to by all who are cognizant of cases in which death has been attributed to the inhalation of sulphuric ether.—*Medical and Surgical Reporter.* (*U.S.*)

PUMPKIN SEEDS AS A VERMIFUGE.

The number of vermifuge medicines is considerable, and still every day new ones are invented, and even frequently old ones are resuscitated which have been buried in complete oblivion. The medicines most employed at present come from Abyssinia, and their efficacy is demonstrated by numerous cases; still, all doctors do not yield it their confidence, and some yet search in indigenous substances for the means of expelling worms. It is thus that for some years the employment of pumpkin seeds (*cucurbita maxima*), which, in 1683, Tyson used for the cure of worms, has been recommended. The case published by MM. Cazin, Brunnult, Tarnan, and Suquet, are such as to recommend the use of this medicine. These gentlemen employed from ten to thirty grammes (from two to six drachms), cleared of their covering and ground in a mortar with a sufficient quantity of sugar. To this is added about a cup of milk, and the ingestion of this liquid quickly determines the expulsion of the tænia, even in cases in which the worm had resisted the action of the anthelmintics which are more generally employed, such as pomegranate, bark, kousso, &c. In order to ensure its efficacy of action, it is essential, in addition to the employment of the seeds, to submit the patient to a rather low diet, and to administer a dose of castor-oil, and two hours after the employment of the vermifuge to cause the patient to take thirty to fifty grammes (half an ounce to an ounce) of castor-oil, in emulsion. The employment of the pumpkin seed has the advantage over most anthelmintics, of not causing either colic or nausea, and besides of being very inexpensive.—*Revue Médicale.*

TREATMENT OF PSORA.

The remedy is prepared by boiling one part of quicklime with two parts of sublimed sulphur in ten parts of water, until the two former are perfectly united. During the boiling it must be constantly stirred with a piece of wood; and when the sulphur and lime have combined, the fluid is to be decanted and kept in a well-stopped bottle. A pint of the liquid is sufficient for the cure of several cases; it is sufficient to wash the body well with warm water, and then to rub the liquid into the skin for half-an-hour; as the fluid evaporates a layer of sulphur is left upon the skin. During the half hour,

the acarus is killed, and the patient is cured; it is only needful, then, to wash the body and to use clean clothes. In Belgium the treatment is introduced by first rubbing the body for half-an-hour with black soap, but this does not appear to be necessary—the only essential act is that of the careful application of the fluid sulphur. The remedy has proved successful in every case in which I have tried it. Since using, the military hospitals of Portsmouth have had no further need of itch wards.—F. S. (Southsea.)—*Chemist and Druggist.*

ON THE EMPLOYMENT OF SACCHARATE OF COLCHICUM IN THE TREATMENT OF GOUT AND ARTICULAR RHEUMATISM.

By Dr. Joyeux.

From a great number of cases which have come under the author's observation, he draws the following conclusions:

1. That the saccharate of colchicum, prepared with the fresh juice of the flower, is one of the most reliable remedies which the physician can employ in order to combat the symptoms which depend upon the gouty or rheumatic diathesis.

2. That the curative effects of colchicum are not owing to its irritating action upon the alimentary canal, but to the sedative power of the alkaloids which it contains; and that, consequently, it is of advantage to administer it in fractional and gradually increasing doses, so as to avoid its purgative effect.

The saccharate of colchicum employen by M. Joyeux is prepared with one hundred grammes of fresh juice, and five hundred grammes of sugar, and evaporated to dryness *in vacuo*. He uses, also, an extract of the juice of colchicum, evaporated *in vacuo*, as an external application, directing it to be rubbed on the painful parts. The saccharate is given in the average dose of four grammes per diem, divided into ten parts, one of which is taken every hour.

"Since I have made use of these preparations," says the author, "I have not met with a single case of gout which did not yield to treatment in two or three days. Acute articular rheumatism disappeared in the space of fifteen or twenty days. In subacute rheumatism, without an equally satisfying result, I have witnessed a great amelioration. I have found it of advantage, in the majority of cases, to let the parties take, as adjuvant, an infusion of limetree blossoms, containing nitre, in the proportion of two grammes to one litre of tea."—*Southern Med. and Surg. Jour.*

A NEW TEST FOR DIABETES.

The only test for glucosuria which I have hitherto found satisfactory, fermentation, involves a delay which is often exceedingly annoying, and sometimes fatal to a satisfacory and seasonable diagnosis. Those founded upon the reduction of metallic oxides, besides being complicated and inconvenient for clinical use, are liable to various fallacies. A better test than any I have seen described, seemed to me a desideratum—one which should be delicate and conclusive, and at the same time ready and convenient. Moved by this sense of a want to experiment for a new process, I have discovered one that seems to me to meet fully the needs of the case; one which, if it be not preeminently scientific, is nevertheless facile and reliable. For the benefit of any others who may have felt the same want, I herewith communicate the result of my investigations. Technically considered, it is simply the conversion of the saccharine element of diabetic urine into caramel by heat. My mode is this:

Upon a clean slip of tinned iron, place one or two drops of the suspected material, and hold it over a spirit-lamp; the fluid will speedily evaporate, leaving, if the process be arrested at that point, scarcely a trace upon the metallic surface. Continue the ap-

plication of heat; in a few moments after the dessication is complete, a spot of an inch or so in diameter, over which the drop spread with the first ebullition, will gradually assume a rich reddish brown color, with a brilliant lustre, as if coated with a film of Japan lacquer. A stronger heat produces a darker color, but the lustre continues till the heat becomes sufficiently intense to decompose the substance.

This experiment has succeeded perfectly in my hands, when the urine on trial, previously known to contain glucose, was of specific gravity less than 1030, and still further reduced by the addition of three or four times as much water. It is thus proved to be a delicate test. I suppose it to be conclusive also, for I have never yet found any other constituent of urine, normal or abnormal, capable of producing anything at all like the same appearance under the same treatment. The nearest approach is this: some samples of urine, not diabetic, when treated in this way, leave a faint, dull, yellowish stain, easily distinguished from caramel by its paler colour, and the entire absence of lustre. I need scarcely add that a solution of sugar, not diabetic, exhibits almost exactly the same reaction.

With the augmented interest attached to the glucosuria, since, besides being a leading feature of a most intractable, but fortunately rare, disease, it is found symptomatically associated with several other diseases and injuries, an increased facility for its detection is almost a necessity of the profession. I trust they will find it in the simple and beautiful experiment above described.—*Boston Med. and Surg. Journal.*

CLINICAL RESEARCHES INTO MORBID PIGMENTARY CHANGES IN THE COMPLEXION.

By Thomas Laycock, M.D., Professor of the Practice of Midecine, etc., in the University of Edinburgh. (British and Foreign Med. Chir. Review, January, 1861, p. 185.)

Dr. Laycock, in consideration of the diagnostic importance of color-characters, and the fact that, in spite of their varied applications to practical uses, they are so imperfectly understood, devotes a paper to the clinical meaning and pathology of morbid pigment-deposits and pigmentary changes in the complexion. Clearer views as to the diagnosis, pathology and treatment of certain related groups of constitutional diseases may be deduced as well from the absence of pigment deposit as its presence.

The conclusions which Dr. Laycock proposes to illustrate are as follow:—

1. That besides blue and green, of rare occurrence, there are two common well-marked and distinct forms of morbid discoloration due to pigment deposit, the *yellow* or sallow, and the black or *swarthy*.

2. That both yellow and swarthy discoloration of the skin will occur from the action of local irritants—as heat, light, cutaneous parasitic fungi, blisters, sinapisms, and the like, or in the progress of various diseases of the skin and its appendages.

3. That the absence of pigment (leucopathia) as well as its deposit, may be caused by inflammatory and other diseases of the skin, affecting its chromatogenous function.

4. That morbid states of the cerebro-centres will influence the deposit or non-deposit of pigment.

5. That morbid states of the genito-urinary organs in both sexes, acting probably through the nervous system, will determine the election of the locality of the pigment deposit, according to the same law by which the development of sexual hair and pigment is regulated.

6. That structural disease of the abdominal viscera and peritoneum also exercise an influence through the nervous system upon the local deposit of pigment in the skin.

7. That in disease of the supra-renal capsules, the bronzing of the skin, whether swarthy or yellow, is partly nervous, and due to the direct or indirect influence of the capsules or the kidneys and nervous system; partly hæmic, and is so far due to the morbid influence of "dyscrasic" blood.

8. That pigmentary changes in the skin of both whites and blacks may be the *result* of morbid causes, and yet may remain after the operation of the causes has ceased, and assume a physiological character.

9. That although local morbid pigmentation of the skin may occur exclusively from local causes, or the influence of the nervous system, in the majority of cases there is a morbid condition of the blood.

10. That the morbid conditions of the blood associated most commonly with pigmentary changes are characterized by those changes in the blood corpuscles (leuxæmia, leucocytosis) which are observed in the cachectic states of a constitutional character, (pregnancy, chlorosis, tertiary syphilis, chronic rheumatism, cancer, etc.,) or which are intimately connected with "dyscrasic," visceral, or glandular diseases (of the spleen, supra-renal capsules, lymphatic glands.

11. That the tendency to discoloration increases (*cæteris paribus*) with age after a certain period of life.

12. That the morbid pigment deposits proper, as distinguished from masses of altered blood corpuscles, are carbonaceous excretions, and are often vicarious with the suspension or imperfect elimination other carbonaceous excretions, as the carbonic and lactic acids, and the pigment constitutents of both the urine and bile; and are consequently associated with morbid states of assimilation, as well as of elimination, (through the skin, lungs, liver, kidneys.)

13. That among the morbid states of assimilation, the rheumatic and gouty are specially to be classed, as well as those coincident with anæmia.

Dr. Laycock enters as well into the literature of the subject as into the pathology; but as this interesting paper is but the first portion of his article on Cutaneous Discolorations, we forbear at present from doing more than referring to the general outline and objects of the task which he has mapped out for himself.—*N. A. Med. Chir. Rev.*

ON THE RESTORATION OF SUSPENDED ANIMATION IN PERSONS APPARENTLY DROWNED.

By Dr. Christian, (London Lancet, Feb. 2, 1861.)

A communication to the Royal Medical and Surgical Society, by Dr. Christian, Medical officer of the Royal Humane Society, elicited considerable discussion as to the proper means to adopt in the cases referred to. It appears that two societies, the Royal Humane Society and the National Life-Boat Institution, issue instructions which are not uniform either in detail or in principle. They differ on two important points—

1. As to the mode of performing artificial respiration.

2. As to the propriety of using the warm bath.

During the twelve years of Dr. Christian's service, 443 submersions had occurred; 181 of which was rescued and recovered without treatment; 165 were treated successfully at the Receiving-house; 97 were brought dead or were unsuccessfully treated. It seems that the Life-boat Institution uses Dr. Marshal Hall's "Ready Method," while the other society employs the method of Dr. Silvester.

The latter it seems had given Dr. Hall's method a fair trial in fifteen cases, in order to test its efficiency, but all parties interested were firmly convinced that Dr. Silvester's plan was in every way superior, more manageable, less likely to injure the patient, will fill the chest with air and expel air from it more fully, and will not force the contents of the stomach upward and in the way of respiration. The directions for treating the asphyxiated at the Receiving-house, Hyde Park, may be appropriately introduced here:—

"Wipe the mouth and nostrils directly the body is taken from the water.

"Use Dr. Silvester's method; at the same time let the body be taken as quietly as possible to the Receiving-house, and place it in the bath up to the neck.

"Raise the body in twenty second from the water, and dash cold water against the chest.

"Pass ammonia under the nose.

"Use again Dr. Silvester's method, and the inflating apparatus, if it fail.

"Remove the body from the bath, and rub the surface with dry hot towels, perseveringly continuing the other treatment."

The author thinks inflation of the lungs, by Dr. Silvester's method or by the society's apparatus, the first remedy, and the shock of the warm bath the second; that after eight minutes' complete submersion, recovery is hopeless, and that when ten minutes elapse after been taken from the water without any effort at respiration, it is equally so.

In the discussion that ensued on the presentation of this paper, Dr. Sharpy and others participated. The former thought that many of the cases of resuscitation in which the "Ready Method" had been successful were still-born infants, some of whom would have recovered, if left alone. He thought that in many of the cases of recovery after submersion in adults, respiration commences spontaneously as soon as the patient reaches the air; not, therefore, in consequence of the means used for resusciation, but in spite of them. He was in favour of the old method of insuflation, the emphysema. occasionally produced by it being due to the quick forcing of air in too great a quantity into the lungs, and in unsuccessful cases, in which insuflation had been practiced, no emphysema had been found as the modes suggested were untenable.

Dr. Sibson, assisted by Mr. Hunter and Mr. Homes, had made unsuccessful experiments with Dr. Hall's Method. Mr. Spencer Wells suggested that the operation for insuflation might be best performed by passing a tube through one nostril into the glottis; accoucheurs were in the habit of inflating the lungs by passing an elastic tube down the glottis. Dr. Christian had never found emphysema to result from the use of the bellows when properly regulated, and was anxious for the adoption of definite rules and instructions unon the modes of restoration of suspended anination. It is to be hoped that the arguments and evidence on both sides will be carefully weighed, and the merits of each mode widely tested by a competent commission.—*N. A. Med. Chir. Rev.*

SURGERY.

RESULTS OF THIRTY-SEVEN CASES OF LITHOTRITY DURING THE YEAR 1860, IN HOPITAL NECKER AT PARIS.

Eighteen patients suffering from vesical calculus have in the course of the past year been admitted into M. Civiale's wards. Among these were three women, one of whom was so much debilitated by previous suffering that any attempt at an operation would have endangered life without any probability of a favourable result, and she continues in the same condition. The second was in a satisfactory state as regards general health, but the concretion was impacted in the urethra, where it was maintained by powerful contraction of the bladder. It was extracted after incision of the urethra—a method M. Civiale resorted to in preference to crushing, which would have been both longer and more hazardous. A prompt cure was here effected. The third case was one of those extraordinary instances which are now and then met with. The stone, consisting of phosphatic deposits, had formed around a conglomeration of teeth, small bones, and hair, which had passed into the bladder after the rupture of a pilous cyst into that cavity. All these substances, together with the concretion, were successfully extracted by lithotrity.

Of the fifteen adult or aged male subjects affected with stone, four were found to be unsuited to lithotrity. Two were operated on by lithotomy; one successfully, the other preserving a fistula. The third died of disease of the kidney, no operation having been

instituted. The fourth patient is now undergoing a course of treatment preparatory to crushing. Another subject affected with calculus was labouring at the same time under strangulated hernia, and died after the operation required for the latter disease. Altogether, ten men only were relieved of the stone by lithotrity, two of whom still continue to suffer pain and disturbance of the functions of the bladder, consequent upon organic disease of that viscus. M. Civiale also laid before the Academy the results of his private practice during the year 1860. The patients he attended were thirty-six in number, and ten were instances of relapse. Lithotrity was performed in twenty-six cases, twenty-four of which had a happy issue. The remaining two presented, as a complication, a morbid state of the bladder which lessened the chances of success. One of these patients died; the other still lives, but is not cured of his infirmity. The cases observed in private practice or in hospital are remarkable for one circumstance, which admits of the classification of calculous subjects into two series. In the first, which includes two-thirds of their number, the viscera retain their natural condition, and functional disturbance, induced by exercise, readily yields to rest, and occurs only by mere accident. In the second the calcareous or phosphatic concretions are developed under the influence of preëxisting disease of the urinary organs, which may persist after operation, partially deprive the patient of the benefit of the proceeding, and even facilitate a relapse. These latter cases are the most numerous among those which have this year come under Civiale's notice. The statistics of this gentleman's practice during the past year further prove that, in order to be successful, lithotrity, as a method, should be confined to those cases in which the disease is in its incipient stage—viz., the concretion must be small, and its formation too recent to have given rise to any changes in the natural shape or structure of the bladder.—*Journal de Médecine et Chirurgie Pratique.*

PAINLESS DESTRUCTION OF HŒMORRHOIDAL TUMOURS BY THE SOLID VIENNA PASTE.

It will be remembered that some years since M. Piédagnel suggested the addition of a certain amount of morphia to escharotic powders, in order to diminish the pain which is induced by their application. M. Amussat resorted with entire success to the anæsthetic compound recommended by M. Piédagnel, in the case of a woman suffering from hæmorrhoids. The cup of the compressor was filled with Vienna caustic combined with one-twelfth of a grain of muriate of morphia. The instrument was applied for four minutes, during which the patient experienced scarcely any pain. It was only after the removal of the forceps that she complained of slight smarting. We would, however, not be understood to state that in all cases the association of caustics with morphia will produce perfect local anæsthesia. Several surgeons have had recourse to the plan, without, as we are aware, attaining this desirable result. As its efficacy is somewhat doubtful, we would recommend that a self-acting enema be held in readiness, in case of pain supervening.—*Dublin Medical Press.*

CASE OF UNUNITED FRACTURE OF THE OS HUMERI, OF FOUR YEARS' STANDING.

CURE BY THE USE OF SILVER LIGATURES.

By E. S. Cooper, A.M., M.D. Professor of Anatomy and Surgery in the Medical Department of the University of the Pacific.

P. M., æt. 39, was admitted into the Pacific Clinical Infirmary, July, 1856, in consequence of an ununited fracture of the centre of the os humeri, of four years' standing. The limb was very little swollen at the point of fracture, and not at all painful, even when moved actively, though the arm would bend very considerably. An incision was

made four inches long on the outer side of the arm directly down to the bone. After this a sharp bone chisel was taken, and the soft parts removed with it from the ends of the fragments for the space of an inch and a half. The adventitious formation was then removed from between the ends of the bones with the same instrument, when the lower end of the os humeri could be readily bent at right angles with the upper. In this position the ends of the broken bone were readily drilled by using an instrument that made a hole one line in diameter. A silver wire, a little smaller than the drill, was then passed through each fragment, when the parts were brought back in close apposition, and the ends of the wire twisted together so as to form a firm knot. A piece of lint wet in an evaporating lotion composed of one part of alcohol and ten of water was applied in the wound, by which it was made to heal entirely by granulation. A roller was then applied upon the limb as tightly as the patient could conveniently bear, commencing at the fingers and extending to near the axilla. The object of having the lint and roller thus applied was to prevent the burrowing of purulent matter among the surrounding parts and leave an opening to the bone, remaining for some time so, that if any portion should exfoliate, room would be left for its escape. The importance of this practice, I cannot too strongly impress upon the minds of my readers; so much so that I do not believe success to any considerable extent can attend any other method of operating for ununited fracture. By this method the parts become consolidated in the region of the wound, interrupting not only the admission of purulent matter from the secreting granular surface into the surrounding parts, but preventing the development of abcesses in the neighbourhoor, which so often cause this operation to fail. The dressing was completed by applying splints to the arm, flexing the forearm, and putting it into a sling across the breast. The cold lotion was continued and the same roller retained for ten days, when it was removed, the lint taken from the wound, and fresh dressings applied instead, which were changed again every third day; and this course continued without change throughout the after treatment.

A gentle motion of the wire was instituted by moving the ends back and forth, commencing during the third week. The object of this was to render the removal of the wire easy. At the end of six weeks the ends of the wire were untwisted; one end cut off by the bone forceps near the bone, and the other gently drawn upon until it came away. Tr. of iodine was applied at this time, and the roller continued two weeks longer when the cure was complete, the fractured bone being united firmly.

The patient then went to work, and has since been constantly laboring at his trade (house carpenter) as formerly, being entirely well at this writing.—*Amer. Med. Times.*

ON AN AFFECTION OF THE MUCOUS FOLLICLES OF THE URETHRA IN GONORRHŒA.

By M. Diday.

If we examine closely the orifice of the urethra in a subject of gonorrhœa, we may sometimes discover in its vicinity a narrow aperture, through which may be made to issue, by pressing the glans forward, a droplet of discharge. Passing a needle into this aperture, it penetrates to a depth of from three to six millimetres in a direction parallel with the urethra. The orifice of this aperture resembles that of the urethra in being red, tumefied, pale, or indolent, accordingly as the gonorrhœa is in its acute or chronic stage; and when the patient has gonorrhœa several times, this lesion will be found always reproduced. The lesion consists in the gonorrhœal condition of one of the mucous follicles of the urethra, and constitutes a highly troublesome complication of the ordinary urethral affection, as respects the curability of this latter and the prolongation of contagiosity. The contagious pus which issues from the follicle is small in quantity and intermittent in appearance, and the lesion may be easily overlooked. Unaffected by injections and balsamiferous urine which do not come in contact with

it, this lesion may persist long after that of the urethra has been cured, and as long as it does persist, infection continues. After trying various means for its cure, M. Diday has come to the conclusion that the only one which is feasible is the obliteration of the abnormal cavity by means of the actual cautery. He at first effected this by introducing a small heated needle into the orifice, and carrying it to the end of the passage; but as the doing this is somewhat tedious, the needle had time to cool before reaching its destination. The plan he has finally arrived at, and the one which he recommends as quite successful, is to pass a small knitting-needle to the very bottom of the duct, and shielding the glans by means of a paper covering, to heat the needle by placing a candle under it until the orifice is whitened, and a grizzling sound is heard. This amount of cauterization suffices for the cure, and when performed thus slowly, is easily effected. All acute inflammatory action must have subsided before it is put into force.

M. Diday takes occasion to observe, that in gonorrhœa the inflammation does not occupy the surface of the canal, but is engaged with a number of follicles similar to the one mentioned above, and that our object in its treatment should be to retain medicinal agents in the urethra in the case of urine charged with copaiba or cubebs, by means of a forceps contrived by M. Diday, the urine being thus kept for several hours in contact with the parts. When injections are employed, too, pressure should be made by the fingers at the entrance of the urethra and behind the scrotum, the fluid thus imprisoned being then forced to and fro.

CASE OF SEVERE INJURY OF THE HEAD, WITH LOSS OF BRAIN.

By W. H. Matchett, M.D. (Cleveland Medical Gazette, February, 1861.)

Dr. Matchett was called on the 9th of January, 1860, to see a man whom he found sitting by the stove, his face and clothing covered with blood, and frequently vomiting blood. He was not sensible of any particular injury, merely complaining of some pain in his shoulder and arm, on examining which, an axillary dislocation of the humerus was discovered. The head of the bone readily slipped into place by simply carrying the arm out from the body, and on inspecting the head and face more closely, Dr. Matchett "found the upper lip cut entirely through, from one angle of the mouth to the other; a small opening under the left eye, that was bleeding profusely, also a small opening in the centre of the frontal bone—a cut about one and a half inches long, extending from the outer extremity of the right superciliary ridge upward and outward into the temporal fossa. Through this opening, at every effort to vomit or to clear the nostrils, small fragments of brain would escape. I collected these until I had, as near as I could guess, about one-half ounce, and how much more had escaped before I saw him, I cannot say."

"Upon further examination I found the skull fractured from about the middle third of the left superciliary ridge, upward and to the centre of the frontal bone; thence toward the right to the temporal fossa; thence toward the outer extremity of the right superciliary ridge—the latter entirely broken down; and this circumscribed or detached piece of the frontal broken up into four smaller fragments. The nasal bones were driven in from their attachment; the molars broken and movable; the superior maxilla driven downward, and six of the front teeth of the same broken off even with the gums. Four front teeth of the lower jaw were pressed backward, spliting the alveolar process."

The patient was questioned as to how he received the injury, but contended that he was not hurt, his nose merely being stopped up from a severe cold. It was, however, ascertained that he left his house on the same day to fell a tree, and on visiting the spot, it was discovered that he had been injured by a large, knotted limb. By this was found a pool of blood, from which the patient could be tracked to the house, a distance of two

hundred yards, having climbed three fences and opened and shut a gate on the route. The cut on the lip was brought together by stitches, and cold compresses were applied to the face and head. He sat in a chair nearly all night, as the recumbent posture caused nausea, and he vomited a quantity of blood. On the second day a cathartic was administered, and a consultation being held, it was decided very naturally that the patient could not live, and no attempt was made to elevate the depressed portions of the frontal bone, or to remove any of the fragments. On the twelfth day, the lip had united, and in attempting to remove the roots of the upper incisors, which caused severe pain, Dr. Matchett found the bones of the face movable, and had, therefore, to desist. The condition of the patient gradually improved, and he had no symptoms of compression. Every effort of blowing the nose would force air into the cellular tissue of the forehead, and for three weeks blood and mucus escaped from the nostrils.

On the first of March, "the nasal, malar, and superior maxillary bones, and the restored teeth of the lower jaw, are all firmly united to their attachments; but the front part of the superior maxilla is too long, allowing the front teeth or roots of the upper and lower teeth, to come together before the molars do, thus preventing the patient from masticating solid food. I found the fragments of the frontal bone united to one another and to the surroundings, but a little depressed. The patient is rational, and remembers shooting a pigeon on the day he was hurt, and also recollects going to the ash tree; but does not remember cutting it down, or making his way to the house, or anything connected with the accident."

The patient continued to do well, and was seen the following September at work on his farm. At the time of writing the report of the case, the author had not heard of any derangement of mind from the loss of brain.

ON THE REDUCTION OF LUXATIONS OF THE HEAD OF THE HUMERUS SIMPLY BY MANIPULATION.

By Henry H. Smith, M.D., Professor of Surgery in the University of Pennsylvania. (Medical and Surgical Reporter, vol. v., No. 19, 1861.)

The method of reducing dislocations of the head of the humerus by elevation and rotation is not a new suggestion, but to Professor Smith is undoubtedly due the credit of having amended and methodized this plan of treatment, and as such to render it worthy the attention of the profession. It does not require the use of an anæsthetic, provided the movements are made gently and slowly so as not to induce fear or muscular resistance, and may be practised when the subject is sitting up, in which event the scapula requires to be steadied.

The manipulation for an axillary luxation is as follows: Elevate the humerus as much as possible, or, at least, to a right angle with the body, and flex the forearm at a right angle with the arm, so that the palm of the hand will present to the patient's abdomen. Then seizing the wrist with one hand, and the surgical neck of the humerus, with the other, while the arm is thus elevated and the forearm flexed, use the forearm as a lever and rotate the head of the humerus upward, outward, and backward, until the palm of the patient's hand looks upward, and a strong resistance to further rotation, caused by the tendon of the subscapularis, is felt. Then bringing the elbow slowly to the side, and keeping the humerus parallel with the middle line of the axilla, that is, not carrying the arm either toward the anterior or posterior portion of the trunk, *rotate* the head of the humerus upward and forward by reversing the motion of the forearm until the palm of the hand shall again look downward, bringing the elbow to the side during this latter rotation, when the luxation will be reduced with great ease to both patient and surgeon.

To reduce anterior luxation, carry the elbow as far backward as possible, and elevate it so as to throw the head of the bone into the axilla, then treat as in an ori-

ginal axillary dislocation. For a posterior luxation elevate the arm and carry it strongly forward, so as to make an axillary variety, and proceed as before.

The paper is illustrated by twelve cases, treated by this method, three being of the anterior variety, and the remainder axillary. One of the former was of three weeks' standing, and one of the latter of six weeks' duration. In about half the number, anœsthetic agents were not employed.

ON ABDOMINAL OR PELVIC ABSCESS.

BY F. C. SKEY, F.R.S., OF ST. BARTHOLOMEW'S HOSPITAL.

During the last few months sundry cases of abdominal and pelvic abscess have fallen under my charge in St. Bartholomew's Hospital. They are always cases of more or less interest, but those above alluded to were more than usually instructive. These abscesses commonly present themselves in persons of impaired constitutions, reduced whether by accidental illness, by low living, or by any other debilitating causes. So far as I have seen and observed them, and I have attended many, their formation is always the result of one of these, or similar causes. There is however, in this circumstance nothing very strange or remarkable, because, probably, all abscesses on a large scale are the product of low, and not of an exalted, vitality.

The general situation of that variety which forms the subject of my present remarks is the iliac fossa. It may therefore be termed either "abdominal" or "pelvic;" for although it occupies the iliac fossa, it is placed within the general walls of the abdomen. It appears in the form of a firm, not necessarily a hard, swelling, very distinctly perceptible on pressure over the above region. If small, its presence is only readily detectable by comparison with the opposite fossa, into which the ends of the fingers sink on moderate pressure. In this respect, however, there is a difference appertaining to the varieties in the form and quantity of the contents contained within the abdominal walls, especially of fat, and the greater or less laxity of the walls themselves. Occurring in young women shortly after parturition, its presence is remarkably distinct. When large, the swelling is apparent to the eye as well as the touch, and it extends across the abdomen toward the mesial line, and upwards in the direction of the umbilicus. In such cases the swelling is prominent, and as it increases in magnitude, it encroaches on the intestines, which are pushed across to the opposite side. In many cases pain is not a prominent feature, and when present, it is usually not severe, but is dull and aching rather than acute in character.

In its early stage I have known this form of disease to be mistaken for two other varieties of swelling—malignant disease of the pelvis, and scybalæ in the colon. From malignant disease it may be distinguished by the general uniformity of the swelling, and by the less serious constitutional signs of health undermined; and judging from liabilities, malignant growths of or from the pelvis are far more uncommon than chronic abscess have presented themselves to my observation more commonly on the right than on the left side. I am not aware whether scybalæ collect more usually on that than on the left; but certainly they are more palpable and more readily detectable in the head of the colon than in the descending part of the intestine, which is placed in less proximity to the abdominal walls than that on the right side. But scybalæ are limited in their relation to the front abdominal walls by the caput coli, and moreover are movable, whereas the mass, which gradually resolves itself into the abycess, presents to the hand the sensation of a large and solid deposit, firmly fixed, and considerably larger than the intestine itself. The disease progresses very slowly, and often requires weeks for its development. As a general rule, it becomes soft, or, in other words, is converted into an abscess, which occupies its original site; in other cases, the sac yields, and the matter extends in one or more directions, of which the most common is downwards along the track of the femoral vessels. I have seen examples in which the matter made its way backwards through the sacro-ischiatic foramen, presenting the dimensions of a formidable abcess on the buttock, the upper part of the thigh, or over the region of the trochanter major. Occasionally the matter will extend across the abdomen

behind the peritoneum, and take the course of the vessels of the opposite side, where it may point through the abdominal muscles above Poupart's ligament. In the case of a lady to which my attention was recently called, a large collection of matter formed underneath the integuments of the right iliac region. The abscess had been preceded by a large mass occupying the fossa beneath it for the period of many weeks. After having evacuated the sac, I detected an opening through the aponeurosis of the external oblique muscle sufficiently large to admit the end of the forefinger, through which the matter had escaped from the abscess below. The outer cyst contained about a pint of brownish pus, both in colour and consistence very unlike the fluid contained in a psoas abscess.

Two remarkable examples of this disease have been under my treatment in St. Bartholomew's Hospital within the last few months. The first was that of a boy about 15 years of age, who fell down on the ice in January last, and struck his left trochanter severely. Considerable pain followed the injury, which was deemed rheumatic; and he was admitted into the above hospital and placed in a medical ward. While there, a swelling formed over the *right* iliac fossa, for which he was removed into a surgical ward, and came under my care. He had an abscess pointing both above and below Poupart's ligament. The upper projection was very prominent, and threatening shortly to burst its way through the skin; but I preferred to evacuate the abscess through the lower opening. About six or eight ounces of matter escaped. For some days he appeared much relieved by the operation; but he gradually lost his appetite, became hectic, and died in three weeks. On examination, it was discovered that the fall had occasioned a rupture of the fibrous capsule of the left hip-joint, and fracture of the acetabulum. Matter had formed in this region, which had extended across the abdomen behind the peritoneum to the right side, and made its way through the abdominal parietes where I had punctured it. During life the boy did not complain of any pain or even discomfort on the left side; and what is worthy of remark is, that during the last week of his life he lay over entirely on his left hip.

When these pelvic abscesses are large and their progress towards maturity is unusually slow,—when they are placed deeply within the pelvis and the matter is bound down by the pelvic fascia, they seldom fail to involve contiguous bone; in which case they generally prove fatal. I opened a large abscess occupying the left iliac fossa of a lady 30 years of age. I had watched the progress of the disease for many weeks. She died, and on examination the matter was found to have involved the entire surface of the venter ilii.

I have been greatly interested in the case of a man in St. Bartholomew's Hospital, who was admitted on the 25th of January with a large abscess over the left trochanter major, and a second collection of matter occupying the upper and inner side of the left thigh. This latter abscess had a very palpable impulse on coughing, which did not extend to the larger collection over the trochanter; neither could I detect the slightest communication between them. The source of the lesser abscess, with its impulse on coughing, might clearly be traced to the abdominal walls. It might not unreasonably be termed "psoas," orginating in disease of the lumbar veterbræ; but what was the explanation due to the presence of the larger abscess on the trochanter? Was that "psoas" also? The man had had no lumbar pain. He could walk and jump without difficulty. As he lay in bed, he could kick out with each leg with force and rapidity, and his person presented none of the conditions of vertebral disease. On examining his abdomen, I detected a large solid mass occupying the left iliac fossa, pressure on which conveyed an impulse to the abscess in the thigh, but not to the larger one. Still I felt persuaded the two communicated, it being highly improbable that the man should be the subject of two abscesses, occupying such close relations to the pelvis. On the contrary, it was probable that the large abscess on the trochanter had derived its matter from the primary disease within the pelvis from which it had escaped through the sacro-ischiatic foramen. And so it proved, for on evacuating the contents of the larger abscess, which consisted of healthy matter, the distended integuments over the lesser one became flaccid and

loose, and the tumor within the abdomen also diminished, though not materially, in size. The opening over the trochanter was enlarged, and the discharge of matter was copious, and a free incision was made into the collection on the thigh; but the tumour within the abdomen gradually increased, and the matter had obviously burrowed behind the peritoneum to the opposite side of the abdomen, for it extended downwards on the femoral vessels into the thigh. Its presence was audible on pressure, as though it contained air. However, in the course of some weeks, the man's health improved, the abdominal tumour diminished, and the fluid in contact with the vessels retired into the abdomen, or became adsorbed; the structures consolidated around the vessels, and the disease appeared to be receding. Without any symptoms of pyæmia, he became ill, lost appetite and sleep, his pulse rose, and he died on the 9th of April.

On examination, the psoas region of the left side was implicated in a large collection of matter, which had extended in all directions downwards into the thigh, outwards through the sacro-ischiatic foramen, and upwards to the vertebral origins of the psoas, the bodies of the vertebræ being extensively ulcerated on their surfaces, and the inter-vertebral substances destroyed. There was no softening of these bones to warrant the application of the term *caries*—primary disease of the bone-structure, but that condition only which prevails in bones long exposed to the contact of pus. The matter had extended across the abdomen to the opposite side, and passed down the thigh, under Poupart's ligament, and along the outer side of the vessels. The psoas muscle of the right side was entirely destroyed, so entirely as to justify the belief that the diseased action had originated on that side, but for the yet greater amount of disease that occupied the left, coupled as it was with the concomitant features of large extension through the sacro-ischiatic notch, and the diseased condition of the vertebræ, which had evidently commenced, and made greater progress on the left than on the right side. Looking to the great extent of the disease within the cavity of the abdomen, one is not astonished at the fatal issue.

The indication to which the treatment in such cases clearly points is that which will most readily convert a chronic into an acute abscess. Any attempt to "resolve" or "discuss" these morbid deposits would be futile, and quite unworthy the advanced progress of scientific surgery. To what end would mercurial ointment, and iodine, and similar agents point? What is their power? Do they possess any? and if they do, could mercurial inunctions induce the circulating system to reverse its action by taking up the morbid deposit it had previously got rid of? In large chronic abcess, whether in the primary thickening or the confirmed stage of fluidity, every function of the body is stamped with indications of debility. Can we hope to infuse healthy actions and promote vital power in a part, while the whole remainder continues weak? The condition is that of weakness. Why matter or lymph was deposited in this or that locality it may not be easy to solve, but we can readily conceive that if not deposited there the morbid condition would present itself elsewhere in the system. In order to obtain absorption of the deposited mass without passing into suppuration, we must convert the present stage of debility into the highest condition of vigorous health, and that is impossible. All that we can hope for, all that the best resources of art can achieve, is to change the chronic into an acute abscess, to advance the formation of pus, and to compel the abscess to select that locality through which it can most readily discharge its contents on a surface of the body. To effect this the appetite must be improved, and gratified with as large a quantity of nutritious food as can be digested; force and vigour must be given to the pulse by means of stimulants. If there be one thing, therefore, that might be more valuable than another in promoting suppurative action, it is bark, and it should be given throughout the treatment in full quantities. At the earliest moment at which fluid can be detected near the surface, the abscess should be freely opened. It most commonly points through the abdominal muscles, but the rule equally applies should the abscess point towards the rectum, or when occurring in the female, towards the vagina, or on the nates or region of the trochanter.—*Lancet.*

THE

British American Journal.

MONTREAL, JUNE, 1861.

THE LUNATIC ASYLUM, ST. JOHNS.

The obvious necessity of an additional asylum for this part of the Province induced us to make the following remarks in our last issue: "Rumour has it that the Government aroused from its apathy by the lamentable occurrence which has given origin to these observations, intends to devote the barracks at St. Johns to the purposes of an asylum. If so, who is to have the charge of the patients? Is it to be the happy seat into which some governmental supporter is to be pitch-forked as a recompense for service, irrespective of qualification for duty? Or as in the case of the Toronto Asylum, is there to appear an advertisement, requesting applications from gentlemen who have made this specialty their study?" As a precedent at least existed for the latter plan, we certainly anticipated that it would have been followed, but far otherwise has been the case. At the very time those remarks were placed on paper, and before the ink was dry with which they were written, the appointment had taken place, and the selection had been made of a gentleman whose real qualification for the office was political services rendered to Solicitor General Morin in reclaiming the scattered, and all but lost Irish votes at Kilkenny at the last election. This is too bad; and we question much if so important a trust was ever before bartered away by any Government in Christendom.

Dr. Henry Howard's qualification for the trust confided to him, may be estimated from the following facts. He only holds the Diploma of the Royal College of Surgeons of England obtained twenty-five years ago. He has never received a medical education in the true sense of that word, which alone, independently of special study, could qualify him for the office. He has never therefore, graduated at any University; while for the last fifteen years of his life, he has devoted himself to the specialties of Eye and Ear surgery exclusively in this city, with such success that when the new incumbent of this Institution took possession of it, there was scarcely a patient to treat, although it was subsidized by the Government to the annual amount of £100. How far and to what extent the study and practice of these specialties during the best period of

a man's life, could qualify any one for the treatment of Insanity, every one of our professional brethren can testify. It is not impossible, however, that the ministry may have made this selection, because of the close connection of the eye and the ear with the brain; that as insanity indicates some disease of the brain, and as Dr. Howard had been in the habit of treating diseases of the eye and ear, two organs intimately associated with the brain, therefore he must be fully competent to treat and manage successfully the more serious ailments of the brain itself.

We are not writing through any political feeling whatever, nor are our remarks regarding Dr. Howard's fitness for the office to which he has been appointed made with the slightest intention of affecting his prospects even in the least degree. So far as he is personally concerned we rejoice at his good fortune: but when an individual is appointed to a deeply responsible trust, as a member of the community we claim the right, and assume the privilege, of enquiring into his fitness for the office, and the qualifications which he may possess for the discharge of his assumed duties. Viewed in this light we regard the appointment as a peculiarly unhappy one, because it is well known to every physician, that in cases of Insanity, every thing tending to recovery depends upon the early and judicious medical and moral treatment which this most unfortunate class of patients may receive. Far be it from us to say that these patients will not receive something like such treatment. We believe that Dr. Howard will do his best towards them; but there is nothing in the antecedents of this gentleman to lead us to suppose that he can "minister to the mind diseased" as he should. It is a position which we are satisfied, very few physicians, however highly educated they may be, would consider themselves, conscientiously, ready to accept at a moment's warning. The treatment of Insanity is a specialty of the highest order, and transcends the treatment of ordinary diseases, as much as mind transcends mere matter. We therefore cannot approve of this appointment, and the more especially, as there were not wanting in the Province gentlemen, who had been accustomed to the management of these cases; and we especially condemn it as the reward of a political supporter at the sacrifice of a suffering humanity.

Although it is well understood that the appointment has been made, and that Dr. Howard has actually taken possession of his quarters, yet the Official Gazette has as yet contained no notification of the fact. This is very singular to say the least. But a more astonishing rumour has reached our ears, that the *incurables only* of the Lower Province are to have the honor of a local habitation at St. Johns. If such is the intention of the ministry, they certainly are paying their nominee a very poor compliment indeed.

COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

Montreal, 14th May, 1861.

The Semi-annual meeting of the College of Physicians and Surgeons, was held this day at the Mechanics' Institute, for the purpose of examination and other business, when were present the following governors:—Drs. Landry, Tétu, Boudreau, Russell, Jackson, Marmette, Forest, Smith, Weilbrenner, Chamber-

lin, Brigham, Gilbert, Johnston, Smallwood, Robillard, Glines, Foster, Munro, Fraser, Hall, Jones, Boyer, Bibaud, Scott, Peltier.

Dr. Chamberlin, the Vice-President for the District of Montreal, took the chair.

The minutes of the last meeting, held in Quebec, were read and approved.

Apologies were received from the following gentlemen, for their absence from this present meeting of the Board, viz.: Drs. Badeau, Sewell, Turcot, Wolff, and Frémont.

Dr. Hall then entered the room and took the chair.

The Secretary, Dr. Peltier, read a petition from a medical practitioner, Dr. Boudreau, praying for pecuniary assistance. The request could not be granted because it was considered that the Board had no power so to dispose of the funds of the College, and moreover, because the petitioner was not a member of the College.

The President introduced to the Board a deputation from the University of McGill College, consisting of Prof. Dawson, and Dr. Campbell, (Rev. Dr. Leach being absent) who wished to consult the College as to the propriety of abridging the term of medical studies from four years to three years, to those students who had obtained the Bachelor of Arts' diploma from some university.

After some appropriate remarks from Professor Dawson as to the wisdom of the step, Dr. Weilbrenner replied that, by so doing, it would be ignoring the long (8 years) and complete studies now followed in all the Colleges of Lower Canada, and would necessarily compel all those students to attend Laval or McGill University, which alone (at present) possessed the power of conferring the degree of B. A.

The same arguments were entertained by a number of other members. Another objection, of great importantance, was urged by Drs. Jones, Smallwood, Marmette, and Bibaud, that it was imprudent to interfere in any manner with the present Act of Incorporation, as it would afford opportunity for the Legislature to jeopardise its present usefulness, and hitherto sound working.

Dr. Fraser moved, seconded by Dr. Scott, That at the next meeting of the Board, they will present a draft of a petition to the Legislature to shorten the term of medical studies in favour of Bachelor of Arts' Graduates, to three years. At this stage of proceedings Dr. Hall was obliged, in consequence of a professional engagement, to leave the chair, which was resumed by Dr. Chamberlin.

Dr. Smallwood then moved, seconded by Dr. Weilbrenner, "That since our last meeting, death has deprived us of one of our eminent and efficient brethren, in the person of Professor A. F. Holmes, formerly a President of this College; and while we regret with profound sorrow his loss, both as a sincere Christian and able adviser, we may comfort ourselves in the fact, that he was called away in the active and useful duties of his profession, and while we would unite with the many in grief for his loss, we would especially beg to convey to his widow and family, our sincere condolence and deepest sympathy."

It was moved by Dr. Russell, seconded by Dr. Munro, That a copy of the said resolution be sent by the Secretary to Mrs. A. F. Holmes, which was carried.

A Mr. Selley praying to become a member of the College, sent in a letter to that purpose, and after some remarks, it was resolved that the Secretary should inform him of the impossibility of granting his demand.

Drs. Chamberlin and Smallwood, who had been named to examine the Treasurer and Registrar's accounts, reported them to be perfectly correct, and it was moved by Dr. Scott, seconded by Dr. Boyer, That the Auditor's report be received.

This motion passed.

Drs. Smallwood and Gilbert gave notice, that at the next triennial meeting, they will submit a motion for the formation of a "College Medical Benevolent Fund," for the assistance of its members.

A petition, to be presented at the next triennial meeting, for approval, was resolved upon and numerously signed, for the purpose of obtaining for this College a Royal Charter, under the style and title of the "Royal College of Physicians and Surgeons of Lower Canada."

The Board then proceeded with the examination of candidates.

The following gentlemen, with diplomas from the University of McGill College, were sworn and received their licenses.

Messrs. R. F. Hamilton, J. B. Chagnon, Duncan Macgregor, Napoléon Leclair, and J. W. Powers.

After the usual examination, the following gentlemen being duly qualified, received their licenses:—

Messrs. Henry Venne, Louis Gravel, Jean Ad. Desjardins, Isidore Frézéau, John E. Fitzpatrick, Frederick Guertin, Edelmar St. Cyr, Ernest Roy, Alfred Gaucher.

Two candidates for license were remanded to their studies.

The following gentlemen, after submitting to the classical examination, and passing it creditably, were allowed to enter upon the study of medicine:—

E. R. Darche, Joseph Roy, Napoléon Marsan, J. Pâquet, Alphonse Lenoir, Ephrême Chapeleau, F. Giguère, Dosithée Martel, Edwin Munro, James McElroy, C. Leonidas Larue, H. Leblanc, John Thompson, C. W. Collins, Ch. Park, George T. Roy, Godefroi Labrie, Septime Morés, Edmond Mount, Napoléon Hébert, Séraphin Gauthier, James O'Leary, George Dufresne, Damase Milet, Cléophas Perrault, J. B. Forest, F. X. Valade, Samuel Sanctuaire, F. Gabonry, and Joseph Beaudin.

Two applicants, who failed in this examination, were rejected.

There being no other business to transact, the Board then adjourned.

HECTOR PELTIER, M.D., Edin.
Sec. Col. P. S., L. C.

TORONTO MEDICO-CHIRURGICAL SOCIETY.

The fourth meeting of the Toronto Medico-Chirurgical Society, was held in their rooms in *Temperance Hall*, on Tuesday, 14th May.

The President occupied the chair.

Dr. Augusta read an interesting paper on *Neuralgia*. After a general discussion the meeting broke up.

RETURN OF CASES TREATED IN ST. PATRICK'S HOSPITAL DURING THE TERM (4 mos.) ending 31st May, 1861.

Cases.	M.	F.	Total.
Abscessus,	2	1	3
Amaurosis,	0	1	1
Amenorrhœa,	0	6	6
Arteritis,	1	0	1
Ascites,	1	0	1
Bronchitis,	1	6	7
Burns,	1	0	1
Catarrh,	2	0	2
Cataract,	2	0	2
Caries of Elbow joint,	0	1	1
" Sternum,	1	0	1
" Tibia,	0	1	1
Conjunctivitis,	1	0	1
Contusio,	1	0	1
Corneitis,	0	1	1
Delir. Tremens,	2	0	2
Diarrhœa,	1	0	1
Epilepsy,	1	0	1
Febris Com.,	2	0	2
" Inter.,	1	0	1
" Remit.,	0	2	2
Fract. Clavicle,	1	0	1
" Femur,	0	1	1
" Ribs,	2	0	2
Frost Bites,	4	0	4
Furunculus,	1	1	2
Gastralgia,	1	0	1
Gastritis,	1	1	2
Gastroenterite,	1	1	2
Hemiplegia,	1	0	1
Hepatitis,	1	0	1
Herpes Labialis,	0	1	1
Hœmoptysis,	0	2	2
Hysteria,	0	3	3
Icterus,	1	0	1
Inflam. of Shoulder joint,	1	1	2
" Ankle "	2	0	2
Leucoma,	0	2	2
Leucorrhœa,	0	2	2
Menorrhagia,	0	1	1
Morbus Cordis,	1	1	2
" Coxarius,	1	0	1
Opthalmia (Strumous)	0	5	5
Opthalmia Tarsi,	0	1	1
Otitis,	1	2	3
Paralysis Agitans,	1	0	1
Paraplegia,	0	2	2
Paronychia,	1	2	3
Pleuritis,	0	1	1
Phthisis Pulmonalis,	6	7	13
Pleuro Pneumonia,	0	3	3
Pneumonia,	0	1	1
Psoriasis,	0	1	1
Rheumatismus,	1	4	5
Scabies,	0	1	1
Sciatica,	1	0	1
Stomatitis,	0	1	1
Suppressio Lochiæ,	0	1	1
Syphil. Papula,	1	0	1
Tonsilitis,	1	0	1
Tænia Capitis,	2	0	2
Ulceration of Pylorus,	1	1	2
Ulcers,	4	1	5
Variola,	5	2	7
	63	72	135

OPERATIONS.

(Major.)

Amputation of Thigh,	1
" Toes,	2
Resection of Elbow joint,	1*
Strabismus,	1
Extraction of Cataract,	1
Depression,	1
Removal of Tumours,	3
	10

(Minor.)

Removing Sequestra,	3
Hypodermic Injections,	9
Extraction of Teeth,	13
Abscesses opened and other incisions.	23
	48

Attending Physician, DR. HINGSTON.

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* (This resection was performed on 27th April on a girl 23 years of age for extensive caries of the right elbow. The joint was greatly swollen and painful; the skin red and shining; and two sinuses communicated with the interior of the joint. Anchylosis (in a straight position) was complete.

The olecranon process was first removed: then the radius and ulna down to the tuberosity of the former, as well as the condyles of the humerus and all the shaft below the condyloid ridges, were sawed off. Hemorrhage was very trifling. Union took place by first intention, except at sites of former fistulous openings, through which a moderate discharge was kept up for about 3 weeks. No pain or febrile disturbance followed and now (five weeks after the operation,) the forearm passively describes a circle of about 130 degrees without pain; while active motion is being rapidly regained.)

EDITORIAL SUMMARY.

Puns Medical.—Why is the Ulna sometimes called the Funny bone? Because it is next to the Humerus (humerous).

Why are a number of dandies in a heavy shower like men with their cheeks torn? Because they are bucks in a torrent (their buccinators' rent).

Hydropathy.—An editor down East declares he never heard of water being used as a general remedy but once, and that was in the days of Noah, when it killed more than it cured.—*Nashville Jour. of Med. and Surg.*

Insanity in China.—Dr. S. W. Williams, senior V. P. of the Medical Missionary Society in China, and who has been twenty years resident there, states that he has observed but two instances of insanity among the Chinese during that period of time. He had seen a greater number of idiots, but this class even is by no means numerous.—*Jour. of Insanity.*

The Bite of Rabid Animals not always followed by Hydrophobia.—A fact well worthy of notice is mentioned in the last annual statistics furnished by the General Hospital of Vienna. It would appear that out of 115 persons bitten by animals whose rabid state was clearly made out, only 25 died with symptoms of hydrophobia. As, however, the actual and precise length of the period of incubation in rabies is not known, these figures cannot be completely relied upon; but it is highly useful to note the comparatively small proportion of deaths which occurred after the well ascertained inoculation of the poison.—*Lancet.*

Gross' Surgery in the Dutch Language.—A publisher in Holland announces that he is about to publish that valuable work in the Dutch language. A high compliment to the talented author.—*Med. and Surg. Reporter.*

A Natural Phenomenon.—A girl died lately at Three Rivers of the name of Georgiana Heroux, eight years of age, who had attained the extraordinary stature of 5 feet and 3 inches, who measured 44 inches round the waist, and weighed 172 lbs. This is given on the authority of *La Reforme* of Quebec.

Curious Malformation.—M. Geoffroy St. Hilaire, has presented to the Academy a photograph of a youth, 14 years of age, who has a peculiar malformation, which has been called "*péadelphe*" His right leg is divided into two limbs, both terminating by feet, which, however point in opposite directions.—*Med. News, from British Med. Jour.* April 1861.

Statistics of Craniotomy.—The operation of Craniotomy is said to be performed in Germany once in every 1944 labours; in Paris once in every 1628; in France at large once every 1200; in Vienna once in every 688; in England once in every 340; in Ireland once in every 106 labours.—*Brit. Med. Jour.* March, 1861.

Cost of Pleuro-pneumonia.—The Massachusetts Commissioners are of opinion that they have eradicated this malignant disease among the cattle of that State, and have stopped the slaughter of animals. The amount of money paid to slaughtered animals is about $33,000. The whole expenses, therefore, of stopping the ravages of the disease will slightly exceed $50,000.—*American Paper.*

Medical Schools and Students abroad.—During the past winter the number of students in Paris was 1156; in London, 1237; and in Dublin, 806; showing a large increase over the session of 1859–60. In Dublin the number attending the different schools was as follows:—Ledwick school, 228; College of Surgeons' school, 220; Cecilia street school, 101; Trinity College school, 100; Richmond Hospital school, 97; and Steven's Hospital school, 60.—*N. A. Med. and Surg. Rev.*

Generosity.—At a meeting of the Suffolk District Medical Society, held on the 27th April last, it was unanimously voted that the members of this Society will furnish their

professional services gratuitously to the families of the volunteers called into the service of the United States.—*Boston Med. and Surg. Jour.*, May 2, 1861.

Diphtheria.—It is said that this disease has destroyed at least ten thousand lives since its first appearance in this country.—*Norfolk Amer. Medico-Chir. Rev.*

Dr. McLeod.—This gentleman, celebrated for his admirable work, "Notes on the Surgery of the Crimea," has been appointed Professor of Surgery in the Andersonian University of Glasgow.

A New Work on the Surgical Diseases and Injuries of the Scalp, Skull, Brain, and Membranes.—We observe by the last number the *North American Medico Chirurgical Review*, of which Dr. S. D. Gross is the senior Editor, that that gentleman, who is author of so many truly valuable works on surgical science, is now occupied on another with the above title, and that he earnestly requests the cooperation of surgeons in furnishing to him "such cases and practical reflections as may have arisen in the course of their experience." "His object is to present a complete digest of the literature on the subject, and he trusts that he will be enabled to produce a work that shall be of permanent value to the healing art." We notice this for the information of our readers, as we are assured that there are many who could contribute much valuable material on this important subject.

The Ether Patent.—The Hon. P. F. Thomas, Commissioner of Patents at Washington, deserves the thanks of the Medical Profession and the public at large, for refusing to renew the patent issued to Drs. Morton and Jackson fourteen years ago, for the exclusive employment of Ether to induce anæsthesia in surgical operations. The patent expired on Nov. 12, 1860, and Dr. Morton, some months since, applied for an extension of the patent for seven years. Dr. Jackson, however, would not assign to Dr. Morton the right of extension, and remonstrated against it. On this account the renewal was not granted, and the result has been that the would-be patentee has succeeded in preserving his name from an amount of odium from which he never could have recovered. Such a boon should be as free as the air from heaven.

It is strange, passing strange, that Dr. Morton, after having achieved so wonderful a discovery, should have been so insensible to his fame as to seek for a patent right. Poverty is a thousand times preferable, under such circumstances, to the most inexhaustible riches extorted from the purses of the people. After endorsing Dr. Morton's claims, as we were induced to do last winter, we deeply regret that he should have permitted himself to go again before Congress. Our sympathy is with him in his poverty, brought on, as he alleges, by his attempts to introduce the use of ether, as an anæsthetic agent, to the notice of the profession and the public; and we think it is a burning shame upon our country and upon the age, that our national legislature has not made him a liberal compensation for his great and inestimable services. If the labours of Jenner in the cause of vaccination deserved the recognition of the British Parliament, surely Dr. Morton is entitled to the gratitude of his countrymen for the sacrifices which he has made to furnish them with a safe means of preventing pain in surgical operations, and in the throes of parturition.

So says the *North American Medico-Chirurgical Review;* but we may ask, and not without equal reason, why has not Professor Simpson, who gave his discovery without restriction to the world, not been rewarded by the British Government. Grants have been awarded upon the most frivolous pretexts. Thus £5000 were awarded to Joanna Stephens for her discovery of the cure of the stone, as notified in the *London Gazette* of June, 1739. Thus it appears that money may be voted by the British Parliament upon the most frivolous pretexts, even though the patient, upon whose recovery the award was made dependant, made a temporary amendment, yet it has permitted a discovery, which has alleviated the sufferings of millions, to go utterly unrewarded. Verily Prof. Simpson will have his reward in another manner. We only think it necessary to contrast the conduct of the two—that of Simpson and that of Morton and Jackson—and if nobility of character can be argued from anything, it can be argued from this.

Dr. James' Fever Powder.—This celebrated powder was not his original composition, but an Italian nostrum, invented by a person of the name of Lisle, a receipt for the preparation of which is to be found at length in *Colborne's Complete English Dispensatory* for the year 1756.—*Paris's Pharmacologia*, 3d American from the 6th London Edition. New York, 1325.

Presentation to Dr. Jacob.—Dr. Jacob, Editor of the *Dublin Medical Press*, was lately presented with a beautiful bronze medal. On one side it bears the portrait of the author, with the word "Jacob," while on the other side is the following inscription:—"Arthur Jacob, M.D., F.R.C.S., Professor of Anatomy and Phys., Royal College of Surgeons in Ireland, in commemoration of eminent services rendered to Science, and the Medical Profession in Ireland, 1860." Dr. Jacob richly deserved the above.

Surgeon General of the United States.—Surgeon Finlay has been appointed Surgeon General, vice Surgeon Lawson, deceased. Salary, $2,740 per annum.

The pay of Surgeons and Assistant Surgeons in the United States army.—We extract from Prof. Hamilton's late work on "Military Surgery," the following, as it may be interesting to many of our readers.

	Pay per month.	No. of rations per day.	Amount of rations per month.	No. of horses for which forage is allowed.	Amount for forage per month.	Servants.					Aggregate amount receivable.
						No. for which pay is allowed	Amount allowed for pay per month.	Amount allowed for clothing per month.	Amount allowed for rations per month.	Total amount allowed per month.	
	$		$		$		$	$	$	$	$
Ass. Surg. under 5 years' service	53.33	4	36	1	8	1	12	2.50	9	23.50	120.83
Ass. Surg. over 5 years' service	70.00	4	36	1	8	1	12	2.50	9	23.50	137.50
Ass. Surg. over 10 years' service	70.00	8	72	1	8	1	12	2.50	9	23.60	178.50
Surgeon under 10 years' service	80.00	4	36	3	24	2	24	5.00	18	47.00	187.00
Surgeon over 10 years' service,	80.00	8	72	3	24	2	24	5.00	18	47.00	223.00

The allowance for forage and servants is only paid to the Surgeons and Assistant Surgeons, when they actually employ and keep in service the number of servants and horses charged for.

In addition to the above, Surgeons and Assistant Surgeons, are allowed an additional ration per diem, after the termination of every five years' service.

LICENTIATES OF THE MEDICAL BOARD OF UPPER CANADA.

(*Continued from page* 239.)

Arthur Devar, M.D.	July 30,	1859
George W. Jones	August 27,	1859
A. M. Rosebrugh, M.D.	September 10,	1859
Daniel Clark, M.D.	September 10,	1859
George Fitzimmons, M.D.	September 14,	1859
John H. Morden, M.D.	September 14,	1859
John Burtch, M.D.	November 12,	1859
Arthur Richard Boyle, M.D.	November 12,	1859

Edward H. Gates, M.D.	November 26,	1859
William C. Shaw	November 26,	1859
Edward Gibson, M.D.	December 10,	1859
William S. Francis, M.B.	December 31,	1859
James Douglas Stevenson, M.D.	January 21,	1860
Henry Charles Rutherford	January 21,	1860
Edwin H. Tegart, M.D.	February 4,	1860
Alexander Stewart, M.D.	February 4,	1860
George D. Wilson, M.D.	February 18,	1860
Francis McCandless, M.D.	February 18,	1860
William B. Quarry, M.D.	March 3,	1860
James Auston	March 17,	1960
John Wilson	March 24,	1860
William F. Terry	April 14,	1860
John Houson	April 21,	1860
Alexander Auld, M.D.	May 19,	1860
Henry Warren, M.D.	June 2,	1860
Charles Henry Donelly, M.D.	June 2,	1860
Thomas R. Dupuis, M.D.	June 2,	1860
Edward William McGuire, M.D.	June 2,	1860
Jonathan Wolverton Marlatt, M.D.	June 2,	1860
Adolphe Robillard, M.D.	June 2,	1860
Louis Duhamel, M.D.	June 2,	1860
William A. Howell, M.D.	June 9,	1860
George McKelcan, M.D.	June 9,	1860
John Hosteller, M.D.	June 9,	1860
John Harvey, M.D.	June 16,	1860
Noble Benjamin Dean, M.D.	June 23,	1860
Elbridge Albert Herriman, M.D.	June 23,	1860
Israel Wood Powell, M.D.	June 23,	1860
Edward Dean Morton, M.D.	July 21,	1860
Edwin A. Hulbert, M.D.	July 21,	1860
Edward Playter, M.D.	July 21,	1860
Donald Gillespie, M.D.	July 21,	1860
William Clarke	July 21,	1860
Jewitt H. Martyn, M.B.	July 21,	1860
Daniel W. Carroll, M.D.	July 21,	1860
James Newcombe, M.D.	August 4,	1860
George D. Spooner, M.D.	August 4,	1860
Robert Wilkins Burnham, M.D.	August 4,	1860
Robert A. Corbett, M.D.	August 4,	1860
Marshall B. McCausland, M.D.	August 11,	1860
George A. Morris, M.D.	August 11,	1860
William Winslow Ogden, M.B.	September 29,	1860
John Alexander Mullin, M.D.	September 29,	1860
George Smith Rose, M.D.	September 29,	1860
William T. Salmon, M.D.	October 11,	1860
Lewis Langstaff, M.D.	October 27,	1860
Edward McKenzie, M.D.	October 27,	1860
Finlow Alexander, M.D.	October 27,	1860
Bennet Richards, M.D.	November 24,	1860
James Sutton, M.D.	November 24,	1860
Thomas C. Channonhouse, M.D.	November 24,	1860
Absolom Harvey Smith	December 8,	1860
Timothy T. Coleman	December 22,	1860
Arthur C. Poussette, M.D.	December 22,	1860

UNIVERSITY OF QUEEN'S COLLEGE FACULTY OF MEDICINE.

We beg to draw attention to the following announcement:—The eighth Session of the Medical Faculty of Queen's College, Kingston, will open on Wednesday, 3rd October, 1861, when the Professors will commence their regular courses of Lectures and Demonstrations.

Anatomy.—Prof. Stewart, L.R.C.S.E.

Surgery.—Prof. Dickson, M.D., Vice-President.
Medicine.—Prof. H. Yates, M.D.
Materia Medica.—Prof. Fowler, M.D., L.R.C.S.E
Chemistry.—Prof. Lawson, Ph. D.
Obstetrics.—Prof. Lavell, M.D.
Institutes of Medicine.—Prof. Litchfield, M.D.
Courses of Clinical Lectures are given in the Kingston General Hospital.
Further information may be obtained on application to the Secretary.
By order of the Faculty of Medicine.

GEORGE LAWSON, PH. D.,
Secretary.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

At Quebec, on 25th May, the wife of A. Jackson, Esq., M.D., of a son.
In Thamesford, 25th April, Mrs. Dr. Dawes, of a son.

DEATH.

We regret to state that Mr. Louis Morache, a medical student in attendance on the College classes, was accidentally drowned on the 29th April last, aged 22 years. He was a fine young man, and generally beloved. We sympathise with his bereaved parents in their loss. This unfortunate accident would have been noticed in our last number, had the information been timelily imparted.

BOOKS, &c., RECEIVED.

STATUTES OF THE PROVINCE OF CANADA, framed in the twenty-fourth year of the reign of Her Majesty Queen Victoria, and in the Fourth Session of the sixth Parliament of Canada. Quebec: Stewart Derbishire, and George Desbarats, 1861.

A PRACTICAL TREATISE ON MILITARY SURGERY, by Frank H. Hamilton, M.D., &c. New York: Balliere, Brothers. 8vo. pp. 234. Price $2.

LOVELL'S GENERAL GEOGRAPHY, for the use of Schools, &c., by J. George Hodgins, LL.B., &c. Montreal: J. Lovell. Toronto: R. & A. Miller. 1861. 4to. pp. 100. Price $1.

A TREATISE ON HUMAN PHYSIOLOGY, designed for the use of students and medical practitioners, by John C. Dutton, Jr., M.D., Prof. of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York. Second edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1861. 8vo. pp. 690. Price $4.25.

A TREATISE ON THE PRACTICE OF MEDICINE, by Edwin R. Maxson, M.D., formerly Lecturer on the Institutes and Practice of Medicine in the Geneva Medical College. Philadelphia: Lindsay & Blakiston, 1861. 8vo. pp. 705. Price $4.

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ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *MONTREAL* IN MAY, 1861.

M. U. C. M. C. M.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE: Barometer corrected and reduc'd to F. 32°	Temper'ture of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS: Amount.	CLOUDS: General description	THERMOMETER: Maximum read at 9, P. M.	THERMOMETER: Minimum read at 7, A. M.	WIND: Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricane.	RAIN AND SNOW: Rain in 24 hrs read at 10, A.M.	RAIN AND SNOW: Snow in 24 hrs read at 10 A.M.	RAIN AND SNOW: Total rain and melted snow	GENERAL OBSERVATIONS.
	Inc's.	°	°	0.100	0.10	0.10		°	°		0.10	Inch.	Inc.	Inch.	
1	29.782	38.6	31.0	.75	5.00	4.0	Cu.	47.8	35.6	N.W.	3.0	1.06	.....	1.06	Faint Auroral Light; Hard Frost, Comet.
2	30.004	36.2	31.2	.82	3.50	0.3	Strat.	49.3	21.2	W.N.W.	1.6	.....	.....	.....	
3	29.941	36.9	27.7	.70	1.83	1.0	Cir. St.	53.0	20.5	S.W.	1.6	.....	.....	.....	
4	29.961	47.6	37.5	.68	2.25	0.0	0.0	60.3	34.8	S.	1.0	.....	.....	.....	Faint Auroral Light.
5	29.827	55.2	43.9	.66	1.75	1.3	Strat.	68.3	38.4	S.W.	2.3	.....	.....	.....	
6	29.557	50.1	44.8	.83	9.00	9.3	Cir. St.	61.3	39.4	S.S.E.	3.0	.....	.....	.....	Wind in gusts.
7	29.084	56.8	54.4	.93	10.0	8.3	Cu.	64.3	48.2	S.W.	3.6	0.68	.....	0.68	Auroral Light.
8	29.486	53.1	47.3	.82	9.00	8.6	Cu. St.	66.3	46.6	S.W.	2.6	0.04	.....	0.04	
9	29.839	52.5	43.2	.72	7.50	4.3	Cu.	63.5	41.5	S.W.	1.0	.....	.....	.....	
10	29.807	54.2	44.1	.69	4.50	0.0	0.0	71.2	40.0	Calm.	.....	.....	.....	.....	Auroral arch at midnight, (Hirundo purpurea seen.)
11	29.707	56.6	49.5	.79	7.00	8.6	Cir. Cu.	69.3	42.5	S.	1.0	.....	.....	.....	
12	29.860	55.0	45.5	.71	5.50	5.3	Cu. St.	63.3	46.8	N.N.E.	1.0	0.09	.....	0.09	
13	29.849	59.2	53.5	.83	8.00	8.6	Cu. St.	70.8	42.2	E.S.E.	1.6	.....	.....	.....	Imperfect Solar Halo A. M.
14	29.631	54.7	50.7	.86	10.0	10.0	Nimb.	64.4	52.2	S.S.E.	4.0	0.16	.....	0.16	
15	29.773	54.6	47.1	.77	5.00	6.3	Cir. Cu. St.	63.8	48.6	W.	3.3	0.38	.....	0.38	
16	29.639	54.5	49.0	.82	8.50	8.6	Cu.	61.1	49.0	S.W.	4.6	0.11	.....	0.11	
17	29.856	49.3	43.8	.83	7.50	10.0	Nimb.	58.8	40.3	W.N.W.	2.0	0.10	.....	0.10	
18	30.075	51.0	45.2	.84	8.00	10.0	Cu. St.	60.2	44.5	W.N.W.	1.3	0.09	.....	0.09	
19	30.041	55.7	46.2	.71	5.00	6.0	Cir. Cu. St.	71.2	41.8	S.W.	1.0	0.04	.....	0.04	Faint Solar Halo.
20	29.907	59.8	48.9	.69	5.00	6.6	Cu. St.	69.3	50.2	N.E.	1.0	.....	.....	.....	
21	29.936	57.1	48.2	.73	4.50	7.3	Cir. Cu.	65.0	48.5	W.N.W.	2.3	.....	.....	.....	
22	30.054	60.1	46.6	.63	2.50	1.3	Cir. Cu.	66.7	47.2	W.N.W.	1.3	.....	.....	.....	
23	30.091	60.6	51.2	.71	0.75	1.6	Cir. St.	71.2	51.0	S.W.	1.6	.....	.....	.....	
24	29.924	64.5	48.5	.60	7.00	6.6	Nimb.	71.5	49.8	S.	2.0	.....	.....	.....	
25	29.556	62.9	50.6	.68	7.00	7.6	Cu. St.	71.9	53.5	W.S.W.	3.0	0.24	.....	0.24	Thunder and lightning at 2 a. m. but distart.
26	29.511	65.7	49.8	.57	6.50	5.6	Cu. St.	72.8	56.3	W.	1.0	.....	.....	.....	
27	29.076	57.7	53.1	.92	10.0	10.0	Nimb.	63.3	52.5	N.	4.0	0.38	.....	0.38	Thunder and Light, p. m.
28	29.623	49.9	45.5	.90	10.0	10.0	Nimb.	60.0	41.5	W.N.W.	2.3	0.95	.....	0.95	Heavy gale during night.
29	29.955	53.5	45.7	.79	9.00	8.6	Cu. St.	62.3	44.5	W.S.W.	3.3	0.58	.....	0.58	
30	30.100	60.6	47.1	.63	7.25	3.6	Cir. St.	62.3	43.7	W.S.W.	5.0	0.08	.....	0.08	
31	30.151	64.4	45.4	.52	6.60	1.3	Cir. St.	93.8	51.0	S.W.	3.3	.....	.....	.....	
S's	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
M's	29.792	54.40	45.72	.750	.....	.....	.....	64.36	43.99	.....	.....	.....	.....	4.98	

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT *TORONTO* IN MAY, 1861.

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE: Barometer reduced to 32° Fah.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	THERMOMETER: Max'm read at 6, A.M. of next day.	THERMOMETER: Min'm read at 2, P.M. of same day.	Dew Point at 3, P.M.	WIND: General Direction.	WIND: Mean Velocity in Miles per hour.	RAIN AND SNOW in 24 hours, ending at 6 A.M. next day: Rain.	Snow.	Total rain and melted Snow.	Ozone in 24 hours ending 6 A.M. of next day.	GENERAL REMARKS.
	Inches.	°	0—100	0—10	°	°	°				Inch.	Inch.	0.10	
1	29.6682	34.93	70	4	41.0	32.5	25.5	N. 37 W.	21.62	.....	0.5	0.050		Very keen stormy day.
2	.8167	26.03	69	4	45.4	28.0	28.0	N. 43 W	7.23	.....	.....	.....		Ice ½ inch thick 6 a. m.
3	.6610	37.72	56	4	44.5	32.0	24.0	N. 70 E.	6.32	.....	.....	.....		Thin ice a. m.
4	.6523	42.57	51	0	49.8	32.0	26.5	S. 37 W.	4.44	.....	.....	.....		
5	.....	Sun day	.....	.....	54.8	31.8	.....	N. 89 E.	11.46	.260	.....	.260		Ice ¼ inch thick a. m.
6	28.9728	47.75	89	10	53.2	43.0	45.0	N. 22 E.	15.96	1.845	.....	.845		Aurora at midnight.
7	28.8720	49.52	75	10	55.5	45.4	44.5	S. 76 W.	15.53	.100	.....	.100		
8	29.3225	44.17	72	6	50.5	40.4	38.5	N. 40 W.	9.06	Inap.	.....	Inap.		Very rapid fall of Barometer at 10 p. m. of 6th 28.644.
9	.5850	44.93	74	1	54.0	32.8	41.0	S. 26 E.	2.59	.....	.....	.....		Faint Aurora at midnight.
10	.3688	45.05	76	9	49.6	37.8	36.0	N. 69 E.	7.17	.165	.....	.165		Solar Halo during morning.
11	.4158	48.58	79	7	57.4	43.5	43.0	S. 43 W.	2.92	.....	.....	.....		
12	.....	Sun day	.....	.....	60.2	42.8	.....	S. 61 E.	3.07	.....	.....	.....		
13	.3910	47.82	89	10	50.2	45.2	45.5	N. 82 E.	7.51	.020	.....	.020		
14	.4073	50.45	71	7	54.8	44.4	40.0	S. 78 W.	11.27	.....	.....	.....		Dense fog a. m.
15	.4573	48.90	73	4	60.2	37.8	44.0	S. 62 W.	7.16	.170	.....	.170		Distant thunder during aft.
16	.5480	44.33	73	9	50.4	41.0	26.0	N. 75 W.	15.15	.....	.....	.....		Faint Auro. at midnight.
17	.7747	42.28	60	3	50 0	36.2	31.0	N. 37 W.	14 65	.....	.....	.....		Faint Auroral light 10 p. m.
18	.8725	44.13	71	8	53.0	32.6	39.0	N. 86 W.	6.41	.....	.....	.....		
19	.....	Sun day	.....	.....	48.4	40.0	.....	N. 52 E.	7.54	Inap.	.....	Inap.		
20	.5775	50.53	69	6	57.8	44.6	44.0	N. 51 E.	7.91	.....	.....	.....		
21	.6940	52.70	48	1	61.0	45.2	30.0	N. 22 W.	11.83	.....	.....	.....		
22	.8103	52.45	59	0	60.9	41.3	41.0	S. 54 W.	2.47	.....	.....	.....		
23	.7792	50.90	67	6	59.8	37.8	25.0	S. 77 E.	4.44	.....	.....	.....		
24	.4968	56.82	68	9	68.0	45.0	56.0	S. 47 W.	8.98	.625	.....	.525		Very heavy storm at midnt.
25	.3893	62.25	74	2	73.0	53.5	57.5	N. 60 W.	11.08	.....	.....	.....		Thunder lightning and heavy rain.
26	.....	Sun day	.....	.....	65.2	51.0	.....	N. 87 E.	7.10	.115	.....	.115		
27	.0860	47.33	76	8	55.8	47.9	26.0	N. 61 W.	27.96	Inap.	.....	Inap.		Thunder storm during even.
28	.5527	48.00	60	6	60.5	40.4	41.0	N. 45 W.	11.50	.080	.....	.080		Bar. at 6 a. m. 28.746, day very stormy.
29	.7767	45.82	69	2	55.0	42.2	42.5	N. 47 W.	6.07	.....	.....	.....		
30	.9095	51.62	60	0	61.4	33.0	46.0	S. 33 W.	4.64	.....	.....	.....		
31	.8683	54.80	67	0	65.2	40.2	42.0	S. 73 E.	3.12	.....	.....	.....		Hoar frost this morning.
S's	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
M's	29.5454	47.50	69	5	55.69	40.04	39.20	N. 44 W.	9.17	3.380	0.5	3.430		