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CANADA

MEDICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Gastrotomy for the removal of Ovarian and other Tumors from the Abdominal Cavity. By ROBERT NELSON, M.D., New York.

Continued from page 270.

SPONGE.—There is not the slightest need of a sponge during the cutting part of the operation, nor in the interior of the abdomen in cases of non-adherent tumors. When there are adhesions a sponge may (rarely) be needed to dip away the little blood that sometimes obscures the orifice of a divided arteriole, in order to secure it by torsion or ligature. The sponge ought never to be *rubbed* on the part, for, by doing so, the part becomes irritated, the innervation exalted, and the little plug that had closed the vessel drawn out; these effects create active bleeding after it has ceased. A good operator rarely employs a sponge, and when he does he is careful to make use of a new one, and not one that has been contaminated by use.

THE LONG AND SHORT INCISIONS CONSIDERED.—Early operators employed the "*long incision*;" that is, long enough to admit of the escape of the tumor, and to afford an insight to what they were about, a cut from fifteen to twenty-six inches long. Recent operators, anxious both for improvement and perhaps novelty, deprecate the long incision as being dangerous from its great extent, and advocate a short cut, since, by puncturing one or more cysts, the contents can be evacuated and so much reduced in size, that the sacks may be drawn through a cut of only a few inches long, and then severed outside of the abdomen, without exposing the viscera to the air. This notion has been largely put in practice of late years with results far from favorable.

A short cut is less painful than a long one. This is its only merit,

and which is now overcome by chloroform. In all other respects it is exceedingly defective. The short cut is utterly useless in all cases where the tumor is solid; also in cystic tumors that are adherent; for the solid tumor cannot be reduced in size since its contents cannot be evacuated, and therefore it cannot be brought through a small opening. Should the tumor consist of cysts and be adherent, the adhesions must be severed in the dark, with great risk to the parts to which it adheres, and in total ignorance of any hemorrhage that may occur. It is only ovarian cysts that can be diminished in size by evacuating their contents, and subsequently dragging the flabby portions through a short cut; a slovenly procedure, as any one who has seen this mode of operating can testify; a mode that favors the entry of some of this unnatural fluid into the abdomen, there to set up irritation and that inflammation which is so greatly feared.

The advocates of this method say a great deal about the advantages it gives of fixing the "stump" in the cut, and outside of the abdomen by means of a clamp, which is to strangulate the peritoneum and tissues within its grasp, until the part sloughs off outside; rather than leave it within the abdominal cavity, therein to slough, to putrefy, and empoison the patient.

All this surgical complication is due to hypothetical speculation in advance of what is expected to happen; to a fear of hemorrhage; to a fear of leaving ligatures in the abdominal cavity; to a fear of exposing the viscera to the malignant influence of the atmosphere; all of them imaginary and unfounded fears, completely disproved by experience; and what my old friend Blundell would call "meddlesome surgery."

The long cut admits of the only means of severing adhesions safely, without injury to adjoining parts, and admits of means to arrest any hemorrhage that, possibly, might happen from a divided artery; and in the case of a solid tumor is absolutely necessary to get space for it to pass through; enables the operator to see what he is about, and to get at the few small vessels going to it that may require ligatures.

Some operators advise and employ a thick ligature—whip cord—with which to tie the whole stump in a single noose. In this way a large "stump" will no doubt be left to putrefy; a disgraceful piece of surgery, when it is so easy to tie the few arteries that enter into it, divide it, and leave no stump of any notable size, behind. But to tie these vessels neatly and efficiently, it is requisite to have room, which the short cut cannot give; hence the lugging out of the stump, and strangulating the whole in a clamp; thus carrying surgery back to the epoch of horse-gelders and sow-spayers, who know not how to arrest hemorrhage otherwise than with clamps and searing irons.

By the clamp process the stump is forcibly stretched from the broad ligament, or the spine, according to the attachment, to the abdominal surface, like the yoke about a goose's neck. The viscera have to place themselves within the abdomen as best they can, on each side, above, and below, like about a post set up among them. The two edges of the abdominal incision bear on the right and left sides of the hauled out stud and must contrive to unite with the serous surfaces of the stud by some strange process—cut surfaces with serous surfaces.

There need exist no fear of hemorrhage in ovarian cases, since only two sets of vessels travel along the broad ligament to the tumor, both of which can be rolled under the peritoneum and collected into two groups; one, the spermatic at the upper edge; the other, some uterine from the internal iliac at the lower edge, each group to be strangled with a fine ligature into a compass scarcely as large as the size of a crow quill, as is manifest by the loop of several ligatures in my possession that have come off in the course of cure.

The fear of inflammation from leaving two or more ligatures attached near the sacrum, and hanging out at the lower end of the cut over the pubis is unfounded. The greatly relaxed parietes in these cases render them much less liable to inflame than do parietes that have never been stretched and are tense.

Another fear, that of air entering by the side or track of the ligatures, is also unfounded; since, during the first few days after the operation the peritoneal liquor oozes constantly out, a discharge from within being opposed to an entry from without; and this discharge ceases only when by a little fibrinous exudation around the ligatures in their whole track it encloses them in a canal, and by this means virtually excludes them from the abdominal cavity.

There is no difference in the length of time requisite to heal a short and a long cut; since the agglutination takes place throughout the whole length of each at the same moment, and not progressively from one point to the next successively. The process that unites one atom of the cut goes on in all, at one and the same time. In gastrotomy, in cases of a previously distended abdomen, when properly performed and judiciously dressed, I have found union to take place without any inflammation, even of that low degree erroneously called adhesive; and have only seen a little of it with a harmless suppuration where the ligatures come out above the pubis.

The Operation.—Any medication of the patient previous to the operation is either useless or hurtful, as fretting the economy to some extent. All that need be done is to give a dose of castor oil the day

previously, or an enema in the morning before the operation, merely to empty the bowels; and the enema should simply be tepid water.

The patient well under chloroform, being on her back, should the tumor incline to one side more than to the other, let an assistant push it so much to the other as to make its centre of convexity lie directly under the linea alba. The operator now commences by making a steady, deliberate cut from a little above the pubis to half way above the umbilicus, or higher up or quite to the scrobiculus, according to his judgment of the size of the tumor. Let it be made fearlessly through the skin down to the fascia over the linea alba. No blood, or less than a spoonful, will escape if it be made exactly in the median line. Let him next, either above or below the umbilicus, exactly in the centre of the linea alba, neither to the right nor to the left of it, cut carefully three or four inches long until he comes to the peritoneum, which is readily distinguished should the tumor be non-adherent in the centre. To enter the abdomen in this way there is no need of probes, directors, forceps, &c., and that scratching and lamina, after lamina dissection too often seen done. Having entered the cavity of the peritoneum he will insert two fingers; on one or between both, place the back of his knife, the edge forward, and then carry it down and upward in the direction of the first incision to the extent needed, and thus effectually and safely open the abdomen. This much completed, insert the hand, palm towards the tumor, one on each side of it, and if there be no adhesions, turn the mass out; but care must now be had that an assistant support it when outside of the abdomen, lest by its great weight it draw too much on the broad ligament, tear or do other injury. The next step is to secure the vessels, which is easily done by collecting them as already said, into two groups, since they roll freely under the investing folds of the peritoneum, one set at the upper edge of the broad ligament, the other set or group at the lower edge, dividing the space between, which contains no vessels. A careful cut must be made through the peritoneum, which lies on and under the vessels, which can be done without the slightest risk of wounding them, in which cut the ligature must be buried; in this way the peritoneum will suffer less than when strangulated. Let the ligature, a small one, be drawn quite tight, and the same done to the other group. Leave at least nine inches long of the ligature to hang out at the lower end of the incision over the pubis. Next cut through the attachment or pedicle of the tumor about half an inch from the ligatures; in this way no fearful "stump" will be left behind, more than is left in the case of arteries in amputations. The tumor is now extirpated. Wait a few minutes and see that all is right—there need be no hurry. During the

operation the intestines may escape when the tumor is small, or from straining of the patient should the chloroform be insufficient, or excite vomiting; but the escape of intestines is a rare occurrence when the tumor is large, because the patient has not had capacity sufficient in the stomach to take in enough food to nourish her; she is lean, and the pressure of the tumor has caused the absorption, more or less complete, of the mesenteric and omental fat, so that what with emptiness and absence of adeps, I have seen the intestines remain in the cavity of the abdomen resembling flat ribbons. However, should the intestines escape, suffer no meddling with them, which will injure them more than leaving them outside, untouched by busy hands, until it is time to close the wound. The surgeon ought to do this without assistance, and without touching them, by merely taking hold of each side of the cut as he would the open mouth of a bag, and lifting the loose and flabby parietes up, the intestines will naturally slip in of themselves. Any attempt to restrain their exit during the performance of the operation will be to bruise them, and embarrass the operator.

The next step in the operation—the closure of the abdomen—is a very nice one, to exactly and neatly approximate the edges of the incision. For this purpose four twisted suture pins will be required to transfix and maintain the edges in perfect coaptation. These pins must be at least three inches long, made of brass, copper or iron wire well tinned—copper in the best, as being very pliable and easily bent after insertion to suit the track it lies in. To insert them, pass the steel needle through the skin an inch from the edge of the wound on one side of it, thrust it obliquely inwards until it pierce the peritoneum half a line from its cut edge within the abdomen, again pierce the opposite side in a corresponding way to come out at the same distance as the first entered. Fit the cut edges exactly and neatly together, and with a figure of 8 ligature secure this first pin. Do the same with the three remaining pins at equal distances from each other. This done insert at suitable intervals a sufficient number of common interrupted sutures between the interspaces of the pins. Add long straps of adhesive plaster, and place over the line of cut a strip of old rag moistened with a little blood that can be had by squeezing out the veins of the removed tumor. This blood dressing is the one most congenial to a wound; it soon dries, and retains the parts like a splint, and is easily removed when *quite dry*. Lastly, lay a compress, made of one or two folded napkins on, with a sufficiency of tow to fill up the empty belly to the level of the ribs, so as to press up the liver and support it from hanging too heavily on its ligaments, until the ribs come down. Retain this thick compress by a many-tailed

bandage, the only kind that will fit snugly and not roll up out of shape and place as does a bread napkin. The many-tailed bandage ought to have its slips scarcely four inches broad, and so laid on each other that the centre one opposite the navel will be the first one lapped on, and the next one above and below to shingle over each other alternately, to reach as high as the ribs and as low as the pubis; the last slip to be passed under the nates, come over the groins up in front of the abdomen, there to be pinned, or tacked with stitches, to those that already encircle the belly.

SUBSEQUENT TREATMENT.—The operation is now finished; the patient in her bed, and soon out of chloroform, is to take three grains of solid opium (no morphine or other fancy preparation). After this she will probably sleep six or eight hours. After that period some slight pain will return, and is to be met with another dose of one or two grains more. It may be necessary to repeat the opium in two grain doses for a few days, morning and evening; but the larger dose should be given in the evening, as that is both the time of exacerbation and the natural period of repose when opium acts most kindly. It is better to give one adequate dose that will last several hours, than tease the system with repeated small doses. After a full dose the system may be allowed time to recover from its unnatural state—the effect of opium; but, never give more, nor oftener than there be real need for, indicated by pain. Where there is pain there is irritation, and where there is irritation, inflammation is likely to be set up—*ubi dolor, ibi fluxus est.*

There is no occasion to move the bowels—a routine practice, injurious after an operation that requires the greatest repose of the body and viscera—nothing interferes more with the recovery of the parts than acting on the bowels. The patient may well go five or six days without a motion, unless flatulency require an enema, or a small dose of castor oil to restore peristaltic action of the intestines; as the bowels were never full for a long time before the operation, and what little remained was removed by the enema, and nothing since accumulated within them during the low diet. But the diet must not be too low, the stomach must not be left empty, like a mill without grist to grind, therefore she must have a little bread and toast water, or tea, or both, according to her previous habit of living, for a few days.

The dressing need not be changed earlier than the fifth or six day, when some of the sutures may be removed, and the dressing carefully replaced.

In cases where there have been no adhesions, and the peritoneum remains natural, it will secrete as usual a small quantity of *liquor abdo-*

minalis. This will escape at the exit of the ligatures, and wet the lower portion of the dressing for a few days; a little later, the ligatures become enclosed in a sort of canal made by a slight deposit of fibrin, and thus become shut out, as it were, of the abdominal cavity, and now no more will escape. Care must be taken to secure the outward ends of the ligatures under adhesive plaster to prevent their being drawn out before the vessels they constringe become completely closed. The ligatures, left to themselves, will take from three to five weeks to come away of themselves, because they always include a small portion of the fibrous tissue that accompanies the vessels in the broad ligament. But no inconvenience results from their so remaining, since the patient can go about as in health.

The foregoing description of the operation of gastrotomy may be taken as the type of any one form for the removal of tumors generally, from the abdominal cavity. Variations may be needed in particular cases, as when adhesions exist. Also, when the case turns out to be a fibrous out-growth from the uterus, and fibro-fatty tumors.

Gastrotomy may be availed of for the extirpation of the uterus, as suggested by Blundell nearly fifty years ago. On one occasion I hesitated between the extirpation of the uterus, or excision of a large fibrous tumor that grew from its base, and ascended mid-way, between the umbilicus and scrobiculus, filled both iliac regions and encroached on the hypochondria; its pedicle, if pedicle it might be called, was over three inches in diameter, and was blended with the substance of the enlarged fundus of the uterus. It was severed close to the uterus; the patient recovered perfectly in three weeks' time. At the time of the operation it was hard to say which of the two, severance from the uterus, or extirpation of the latter with the tumor, was likely to be the safer operation. Had I decided on the removal of both, I should have first tied the two internal iliac arteries, a simple and easy operation in the then open abdomen, where the vessels lie very apparent. In such a case the principal difficulty will be to sever the organ from the urinary bladder in front, and from the rectum behind, besides a careful regard not to wound the ureters. The open vagina can be closed with a couple of sutures, so inserted as to permit the ends to come through the vulva.

Very rarely gastrotomy may be needed for the removal of a fœtus in case of its escape into the abdomen through a ruptured uterus, and for the removal of the remains of an extra-uterine conception. Such an operation is very simple in its execution, and the incision will be of very limited extent.

Cæsarian section I think ought never to be performed. There are

very few cases of natural obstruction so complete as will not admit of instruments capable of extracting the fœtus, piecemeal at least, by the natural passage, and so save the mother in preference to the fœtus. I have seen several Cæsarian operations performed in 1832 and 1834, to satisfy or rather gratify a bigoted clerical prejudice. They were all unfortunate and cruel.

A Few Miscellaneous Remarks.—It is not without great interest that we can look into the empty abdomen after the removal of a large tumor—for the cavity looks empty. The stomach will be found very small, and all the intestines nearly empty, and so reduced in size as to resemble flat ribbons; no fat anywhere, in long standing cases,—even about the kidneys. In this state of emptiness, and no support on the vessels, we cannot help smiling at the caution so seriously inculcated in cases of paracentesis to keep up great pressure, without which it is supposed that syncope—even mortal syncope—may occur.

Whipcord as a ligature to the pedicle is too large to be capable of being drawn sufficiently tight to compress the small vessels it is so disproportionately applied to. It will stand a strain of nearly a hundred pounds without breaking, a force much greater than needed. A single thread well applied I have found adequate to every purpose.

The Ecrasure (crusher), a novel instrument recently introduced to sever parts without the risk of hemorrhage. It is a more barbarous instrument, if possible, than the gelder's clamp, and equally disgraceful to the progress surgery has made. Where it can be applied with precision, and bruise its way through parts, a knife can cut with exactitude, and any severed vessels tied, should the surgeon possess no more than limited abilities.

One word more about hemorrhage in the case of extirpating ovarian tumors. Here, hemorrhage can come from two sources only—I say nothing about adhesions. The first is from the spermatic vessels; these cannot give trouble. The second source is more important, furnished by the uterine vessels, deep in the hollow of the sacrum, where, in a few cases, difficulty may be encountered from the "welling up" of blood. But this can be easily commanded by a good assistant, compressing the internal iliac with his finger against the brim of the pelvis—alternately pressing and relaxing—to enable the operator to see the point of escape, and there apply a ligature with the aid of a forceps or tenaculum, or the old method with a needle.

Puerperal Mania the result of metritic irritation from imperfectly developed scarlatinal exanthema. By J. A. GRANT, M.D., F.R.C.S.E., M.R.C.P.L., &c. Attending Physician General Protestant Hospital, Ottawa.

On the 25th October, 1864, Mrs. W., aet. thirty-five years of age, a woman of regular conformation of body and somewhat robust, was delivered of her fourth child after a natural labor of four hours' duration without an unfavorable symptom. On the evening of the third day after her delivery she had a rigor, succeeded by heat of skin, without any particularly localized pain. The pulse 120 and weak, mouth parched, tongue furred, bowels relieved by castor oil, which was administered the night previous. Urine voided in moderately normal quantity, but high colored and abounding in uric acid and urates. Ordered compound powder of ipecacuanha gr. v., with two of calomel. She slept several hours during the night, and next morning the skin was covered with a bright scarlet eruption, particularly the face, neck, shoulders, and chest, accompanied by a general aching sensation over the body, but more particularly at the articulations of the joints. There was slight headache, suffusion of the eyes, fauces red, tonsils humid, tongue moist and covered with a slight fur, much thirst, pulse 120, skin over the abdominal surface pale, excepting a few mottled patches; no very marked tenderness experienced upon pressure over the abdomen; uterus firm and well contracted.

Ordered ℞ Ammon. sesquicarb. ʒ ss.
Liquor ammon. acet. ℥ iss.
Mistura camphora ℥ ii.
Aqua distillato. ℥ ivss.

Misce: sumat. cochl. amplum tertia quaque hora. The feet placed in warm water, hot fomentations applied over the abdomen and a sinapism to the neck, the bowels also relieved by an injection of gruel. During the afternoon of the third day from the development of the eruption, delirium supervened, of which there was not any particular indication previous, either in the countenance or general demeanor of the patient. Soon, however, there was observed a troubled, agitated and hurried manner, a restless eye with the usual suspicious and unpleased expression of face, a constant desire to talk, contradict and compose rhyme, after being asked a question, without any desire to answer, inclined to leave her bed, and destroy her garments; pulse still rapid and compressible, temperature of the skin reduced several degrees, tongue coated with a slimy fur and the saliva scanty and glutinous, urine voided in small quantity and the lochia less copious than the day previous and slightly fœtid. She

now most obstinately refused treatment, and at once removed any application made to the surface. Having observed that the eruption on the abdominal walls was not uniform with that over the body, the idea occurred to my mind, that the maniacal symptoms might arise from an arrest of development in the eruption over the abdomen. ℞ olei crotonis tiglii ʒ ii, olei olivæ ʒ ii mixed. Rubbed over the abdomen three times each day until a full crop of pimples appear. After the lapse of eighteen hours a copious eruption was produced, on the appearance of which, the delirium subsided in a remarkable manner, and sleep being now induced through the administration of an opiate, the following morning sensibility was restored, the whole of the two days being to her a perfect blank, not even retaining the slightest recollection of what had transpired on November 4th; the eruption had nearly faded away, and no pain in the joints was complained of. The sore throat was relieved by a gargle of potass. chlorat. with tinct. myrrh and honey. Nov. 6. From this date the case progressed most favorably, and, during the following week, desquamation of the cuticle commenced, and continued to the end of the third week, the cuticle of several fingers being so detached as almost to resemble a glove finger in shape. As the system became relieved, the various secretions returned to their normal state, and the function of the brain soon became as vigorous as ever.

Remarks.—It is a well established fact that pregnant women are not so liable to become the subjects of infectious diseases as other individuals, pregnancy acting the part of a safe-guard; on the other hand, however, the system is unusually susceptible to the same unhealthy actions after confinement, from which it was comparatively speaking free while the fœtus was in utero. Two children of Mrs. W. were seized with scarlet fever, and had recovered fully ten days prior to her confinement, the house being thoroughly ventilated and every precaution taken to avoid infection. Notwithstanding these purifying measures, the mother was no sooner delivered, than her system became the nidus for the zymotic poison, than which, under such circumstances, none could be more fatal to the parturient female.

Dr. Ramsbotham, in his recent work on parturition, p. 443, states that of the numerous cases which he witnessed in London, only two recovered; one in a state of abject poverty, the other surrounded by all the comforts which affluence could bestow. Tweedy says, it is a fatal disease when it attacks pregnant or puerperal women; Watson says, when scarlet fever befals parturient women, it almost always proves fatal. "Scarlet fever, during pregnancy, most certainly ends in abortion and death. If the woman be recently delivered, the disease will be of the

most malignant type, and almost always fatal." (Dr. Aitken's Practice of Medicine, Vol. I., p. 329.) In scarlatina, "pregnancy also adds to the danger, as the woman frequently miscarries. The prognosis is also extremely grave when it attacks women immediately after parturition." (Wilson on Diseases of the Skin, p. 421.) Several facts in connection with this case render it of interest, more especially in a pathological point of view. We observe how the admission of the zymotic scarlatinal poison into the system was followed by the symptoms, viz., the shivering pain over the uterine region, rapidity of pulse, not *full* and *strong*, but *weak* and *compressible*. It is now admitted "that these symptoms frequently indicate the passage of poisonous material into the blood." (Dr. Hewett on the Diet of Child-bed, Canada Medical Journal, No. 5, p. 239.) As proof of this opinion we could not seek a better illustration. These symptoms were not the result of inflammatory action, but rather the outward manifestation of the accumulation within the system of the particular poisonous material, which, when thoroughly developed, particularized the scarlatinal type of fever. These various indications pointed out a course of treatment not anti-inflammatory, but stimulating and supporting. The human system can be subjected to no greater changes than those taking place during the period of pregnancy; the growth of the uterus and its appendages during gestation, and their relapse to their pristine condition after it, are changes so gradual on the one hand and sudden on the other, that constant observation is requisite in order to guard against diseases to which the system, at this particular time, is so liable. Scarlet fever being essentially a blood disease, "the effect of the poison, as justly observed by Dr. Golding Bird (Grey's Hospital Reports, April, 1854, p. 136), is a determination of blood towards the cutaneous and mucous surfaces, shown by the characteristic rash on the one, and the erythematic state of the other. If the eruption be fully developed, the effects of the poison become exhausted. But if the effects of the scarlatinal poison be interfered with, by any irregularity, the poison not being carefully eliminated, some of the recognized of its effects result."

The existence of an imperfectly developed exanthem over the abdominal surface, coincident with the appearance of maniacal symptoms led me to suppose that the metritic irritation resulting from this imperfectly eliminated poison excited the *cerebrum* in a *reflex form*. Owing to the unmanageableness of the patient great difficulty was experienced in treatment, in consequence of which strong croton oil liniment was applied copiously over the abdominal walls as a *dernier ressort*. After eighteen hours considerable pustulation and surrounding redness was produced over the entire region. No sooner had this change taken place than the

constitution commenced to regain its tranquillity and the mind its powers, the great source of metritic irritation being removed through rapid direct counter irritation. In addition, the system was supported by wine, beef-tea, and ammonia. The case progressed to a most favorable termination in the course of ten days without any further trouble. The infant has not so far contracted the disease from which, under existing circumstances, it may be free. In this case there was no tendency to puerperal insanity of the hereditary type, such as has been made out by Gooch, Burrows, Esquirol, and many others.

Ottawa City, Dec. 15, 1864.

Case of Delirium Tremens, treated by Digitalis. Recovery. By J. H. HUNT, L.R.C.S.I., Assistant Surgeon 1st Batt. Prince Consort's Own Rifle Brigade.

Private John McN——, aged 37, presented himself at the Regimental Hospital, the morning of the 11th May, 1864, complaining of pain in the joints of the lower extremity, anorexia, and loss of sleep. His general appearance indicated that of a man suffering from the effects of protracted tippling.

He was ordered to bed, and alcoholic stimulants and opiates were administered.

May 12th.—Loss of sleep during the night, accompanied with violent delirium; pulse accelerated; tongue tremulous, moist and creamy; surface of body covered with cold clammy sweat; bowels open.

Beef tea and alcoholic stimulants, and the following draught every three hours:

℞. Spt. eth. chlorici, m. 40.
Sol. mur. morph, m. 30.
Mist camphoræ, ℥j., misce.
Ft. haustus.

Slight improvement since morning.

6 p. m.—Slept about one hour; vomiting set in, which was checked by effervescent draughts.

13th.—Third day of attack; passed a sleepless night; was violently delirious, which, at the time of visit, assumed a low muttering type; constant jerking of the limbs, and pricking at the bedclothes. Pulse 150, weak and intermittent; surface of body covered with cold clammy sweat. He was evidently sinking.

As *la médicine expectante* was obviously inexpedient, and, as no time

was to be lost, in consultation with Surgeon Major Bowen, I determined to try the effect of digitalis.

Half an ounce of the tincture was administered (care being taken to keep him in a horizontal position). The effect was magical!

The *pulse* fell, in less than half an hour, from 150 to 100, and increased in volume; the nervous excitement became allayed; *the temperature of the body was raised;* the jerking of the limbs ceased; and he soon subsided into what seemed a restless half drunken slumber.

3 p. m.—After a brief period of rest, delirium again supervened. Half an ounce of the tincture of digitalis in porter was again administered with similar but more permanent results. The delirium subsided; the pulse fell to 90; the temperature of the body was increased, and he again subsided into an uneasy sleep which continued until 8 p. m., when he awoke slightly excited and bewildered. As his pulse was now reduced to 75, we did not deem it judicious to push the digitalis further. Half a drachm of solution of morphia was accordingly administered, which produced sleep, sound and refreshing; and from which he awoke the ensuing morning, calm and rational but somewhat shaky; this latter, symptom, however, soon disappeared under the judicious administration of tonics and stimulants.

REVIEWS AND NOTICES OF BOOKS.

Transactions of the Obstetrical Society of London. Vol. 5, for the year 1863. London: Longman, Green, Longman, Roberts, and Green, 1864. 8vo. pp. 325.

The interchange of ideas of members of any profession or votaries of any science, must be of incalculable benefit not alone to the members, but to the advancement of that particular science. The various societies of the principal cities of the Old World have been so many rallying points whose meetings have made science what it is at the present day. Many, we may say nearly all, the discoveries in science owe their birth to the existence of these societies, whose aim and object have been the advancement of learning and consequent benefit to the human family. The Obstetrical Society of London is by no means behind other bodies similarly constituted, as for usefulness it is, perhaps, one of the most successful organizations of the day. The last volume of its transactions, the fifth of its series, comes to us replete with original matter, most valuable from its practical bearing, and as enunciating the views of many of the leading obstetricians of Great Britain.

The first paper by J. H. Aveling, M.D., Sheffield, is on vaginal lithotomy. After a succinct history of the operation, the author concludes with a description of a case which came under his observation. He gives the results of thirty-five cases which he has collected. Vaginal lithotomy was first performed by Fabricius Hildanus in the year 1568. It is an operation of ease and perfect safety, and not necessarily followed by vesico-vaginal fistula; but should that event occur, it is easily remediable with the means now at hand. There can be no doubt that a clear cut is much less liable to be followed by failure, if the edges of the wound are well brought together, than when the posterior wall of the bladder has ulcerated through from the continued pressure of a stone, or from sphacelus, the result of pressure of the child's head during difficult or protracted labor.

Mr. Aveling describes the steps of his operation. After removal of the stone he closed the wound with four silver sutures placed a quarter of an inch apart; after having adjusted them, eight or ten gilt beads were slipt over the ends of each suture and run down to the lips of the wound; these were kept in position by perforated shot placed on the ends of the sutures and tightened upon them, the ends of the wire being clipt off close to the shot. On the seventh day the wound was found completely united, the shot and beads removed, but the sutures not taken out until the end of the tenth day. Mr. Aveling found some difficulty in removing the last bead which had become embedded in the tissues; to obviate this difficulty he proposes using a coil of wire, easily made by winding on a moderately large sized pin, so as the coils may closely adhere; this can be made of any length to suit the wishes of the operator, and can be secured by a split or perforated shot in the ordinary way.

The next paper is by Mr. J. Baker Brown, on vesico-vaginal fistula, The author giv s the details of seventy-two cases, seventy of which were under his own care. We have extracted the following as the results of his success:

Cured	60
Not cured	6
Died	2
Under treatment	4
Total	72

The cases of non-cure admit of analysis. One was so far relieved that very little urine passed by the remaining fistula; in three the failure was the result of bad general health, one was discharged from the hospital for unruly conduct, and one would not consent to further treatment.

the fistula much lessened in size by two operations. Of the two fatal cases, one died on the eighteenth day after the operation from exhaustion, the other at the end of a week from pyæmia. Mr. Brown's observations lead him to the belief that vesico-vaginal fistula is very generally produced by protracted or difficult labor. Of fifty-five cases admitted into the London Surgical Home, seventeen were the result of protracted labor, but in whom delivery was effected by nature unaided, and thirty-eight required surgical interference to effect delivery. In the great majority of these cases the labor was of long duration, forty-seven being over twenty-four hours. "The obvious inference is that we should never allow a labor to become protracted."

Mr. Brown reccommends the use of silver sutures in preference to silk or iron wire; with regard to the time that sutures should be permitted to remain in, he states that they should not be removed before the end of nine days; in one case, at the patient's request, they were taken out on the sixth day; the fistula appeared quite healed; contrary to advice she left her bed on the following day, when the whole again burst open, requiring a second operation, which was attended with success. He believes no harm can arise from leaving the sutures in for even longer than nine days; he had kept silver sutures in for six and nine months without a trace of ulceration appearing. With regard to his method of adjusting the sutures, he merely fastens them by twisting together the ends in the ordinary way, so as to sufficiently approximate the edges of the wound, but carefully avoiding all undue or unnecessary pressure.

Dr. Clay, of Manchester, gives a most interesting paper on ovariotomy. His results speak volumes in favor of the operation. By this paper we learn that of 108 cases of ovarian diseases operated on by him, thirty-four only died, giving him seventy-four recoveries; of the deaths, ten died from the immediate consequences of the operation or shock; ten from peritoneal inflammation about the third day; twelve from prostration on or about the sixth or ninth day; and two from hemorrhage.

Dr. Clay dwells on a few practical points in reference to this operation, which, coming from such a source, cannot be passed over. With regard to the use of chloroform, he prefers operating without it, "as the patient would bring to bear on her case a nerve and determination to meet so great a trial, which would assist beyond all value the after treatment."

The large incision is advocated by our author, as he is firmly impressed with the advantage of "a bold and large incision through the integuments, at once affording plenty of room for every manipulation, aided by the eye, than to require a subsequent enlargement, or to drag cysts or solid masses, through small openings, without a knowledge of what attachments

may possibly exist behind." Dr. Clay prefers using the Indian hemp as a ligature for the pedicle; he states that silk, which he formerly employed, is apt to slip, and he is not an advocate for the use of the clamp. Distressing gulping, and vomiting he regards as due to the employment of chloroform: very little can be done by way of relief, but care should be observed in the amount of food given the patient; very little of any kind should be permitted until the sensitiveness of the stomach is allayed. The author has observed certain periods in the progress of treatment or critical days. If the patient does not sink from the shock during the first twenty-four hours, the next critical period is the third day after the operation, when she may sink from unsubdued inflammation; the next critical period is the sixth day, when he apprehends danger from prostration, after the subsidence of peritoneal inflammation. If the patient is young, this period is deferred until the ninth day.

The twelfth day is very frequently accompanied by troublesome symptoms, consequent on the loosening or entire separation of the ligatures on the pedicle. After this period the Dr. considers his patient comparatively safe. With regard to his mode of treatment in cases where inflammation supervenes, he trusts entirely to hot fomentations, and other anti-phlogistic means, but never bleeds.

Dr. Clay attaches great importance to the use of ox-gall inspissated, in the form of pill. He states it acts gently without purging, and prevents flatus. He says "the enema is at all times sufficient to unload the bowels, without straining. I never allow the patient to empty either bladder or rectum without the assistance of catheter and enema, for the first five or six days after the operation."

Dr. Clay has operated at all ages, from sixteen to fifty-seven, and no age presents itself as more successful than others. He states, that had he a choice, he would "prefer that period of life for the operation when menstruation is about to cease or had altogether ceased." Patients at this period, if not much emaciated or worn down by the disease, appear to have a better chance, as there is less likelihood of inflammation, they bear the operation better, and are more disposed to submit to restraint and self-denial, so necessary towards a successful issue.

Dr. Clay concludes his paper with the details of an operation for extirpation of the entire uterus and appendages, which he performed in January, 1863, and which was attended with success.

We pass over several interesting papers on various subjects, and come to one by Thomas Skinner, M.D., Liverpool, on the Galactagogue Properties of Faradization. Dr. Skinner was led to his experiments from the known influence of the nervous system on secretion, as also from the

facts shown by Ludwig, Bernard, and others, of the secretion of glands being increased by artificial stimuli applied to their nerves.

He gives the results of eight cases, which were all successful. He applies the galvanism to the breast for a few minutes at a time, using the ordinary electro-galvanic coil machine, and passing a very gentle current through the gland. He arms the ends of each pole with a piece of sponge, wet with tepid water,—the positive pole he presses deep into the axilla, and with the negative touches lightly the nipple and surface of the areola, never permitting the current to be strong enough to be unpleasant or disagreeable; this he keeps up for two or three minutes at a time, not more; in one instance the action was continued for ten minutes. A single application is generally sufficient, but if not, it should be repeated each day.

John Shortt, M.D., Chingleput, Madras, gives a most interesting paper on the medical history of woman in Southern India. The author details the ceremonies performed at different periods of woman's life, by the four principal castes of Southern India, viz., the Brahmins, Hindoos, Mahomedans, and Pariahs from the period of menstruation to childbed, with a general view of the obstetric practice of the country.

This latter is of an exceedingly low type, as the poor patients are generally delivered by native women, who do not scruple to use extraordinary violence to effect delivery.

It is seldom that the aid of an European physician is sought, and then only in those extreme cases which baffle the native midwives.

There is a paper by Dr. Charles Kidd on the use of anæsthetics in midwifery, which will repay perusal.

A paper by Dr. Clay, Manchester, on the use of wire loops in malpositions of the uterus, with a plate illustrative of the shape of the loops proposed.

There are several other papers of very great importance and high value in a practical point, as are also the discussions on the several papers which are appended to each, but space will not permit our referring to them. Altogether the book will be found a most valuable addition to the library of the general practitioner, and we can confidently recommend it to our readers. The typography is excellent, and the paper, as in all English works, superior. There are several wood engravings, which we think admit of improvement: they lack that clear distinctness which we have been accustomed to see. It is to be had on application to the secretaries of the society, Graily Hewitt, M.D., or John B. Hicks, M.D., F.R.S., of London, England.

Therapeutics and Materia Medica: a systematic Treatise on the Action and Uses of Medicinal agents, including their Description and History. By ALFRED STILLÉ, M.D., Professor of the Theory and Practice of Medicine in the University of Pennsylvania, &c., &c. Second edition, revised and enlarged. In two volumes. Vol. 1, pp. 776; Vol. 2, pp. 819. Philadelphia: Blanchard and Lea. 1864.

After a lapse of four years, Dr. Stillé has prepared a second edition of his truly valuable work, which, since its appearance in 1860, has been extensively used as a standard authority in this department of medical science. This edition has been thoroughly revised, and is brought down to the present day, as whatever the author has regarded as constituting a real advance in therapeutical knowledge has been incorporated in it. The nomenclature and formulæ for officinal preparations have been made to conform to the recent edition of the American Pharmacopœia. A few medicines of minor importance have been omitted; and several new preparations have been added. Considerable and important additions have been made to almost every article. The general arrangement of the work has reference to the therapeutical action of the remedial agents,—an arrangement which is not always the best, as it frequently necessitates seeking for a description of the remedial agents in different parts of the same book. This objection does not seem to obtain in the work before us. With regard to the details of the therapeutic application of the various remedial agents, these volumes are particularly rich,—a fact of itself sufficient to stamp the real value of the work to the practitioner and general student, to whom it will be found of more value than to the pharmaceutist.

The work commences with an introduction, wherein will be found an account of the sources from which medicines are derived—the sources from whence we have acquired our therapeutical knowledge,—the sources of knowledge respecting the action of medicine—the physiological action of medicines—their local action—remote action—absorption—the avenues through which medicines are introduced—their effect—the curative action of medicine—the influences modifying their effects—the administration of medicine—the art of prescribing,—and their classifications. No person can read over this list without recognizing the importance of each subject in connection with the study of therapeutics. In speaking of the sources from whence our knowledge is derived of the curative influence of medicines, the author observes:

"The word to *cure*, in its proper and etymological sense, means to take care of, and it is only derivatively that it has come to signify to heal or 'to restore to a sound or healthy state.' The distinction is

happily expressed in the Latin line, *Medicus curat, Natura sanat morbos*, Physicians *cure*, but Nature heals. Medicine is only the handmaid of nature, the really active and efficient agent in the restoration of health; Medicine can do no more than remove the impediments from nature's path, support her when faint, restrain her when violent, and guide her when she is inclined to err. But the vital powers and functions of the organism have an inherent tendency to return to their normal condition when deranged by any cause, and to remove or repair the alterations of structure which may have attended that derangement. In this consists the healing power of nature, *vis medicatrix naturæ*, which, under various names, was recognized even in the earliest stages of Medicine, and, indeed, more fully then than at any subsequent period until modern times.

"In diseases the least amenable to art, as well as in those acknowledged to be spontaneously curable, the power of Nature is clearly manifested. It is not pretended that any human resources can secure the arrest of tubercle, yet Nature not unfrequently converts the tuberculous into a calcareous deposit, in which form it remains permanently innocuous. The highest achievement of art is to sustain nature, that she may have time, if possible, to perfect her work. The whole process by which wounds are healed is a natural one; and consists simply in the establishment of the nutritive process between the divided surfaces; of the exudation of a plasma and of cells, the formation of blood-vessels, and the absorption of the excess of material. And yet for thousands of years this simple method of nature was set aside by man's contrivance, and wounds were deluged with oil and wine and various unguents, which substituted suppurative inflammation for the adhesive process, and both aggravated and prolonged the patient's suffering. But if nature is so efficient in healing external lesions, we must presume that she exerts the same power in diseases of internal organs, for the elements involved are essentially the same in both. But even more than this, a little observation informs us what is the method she adopts to prevent the development or extension of morbid processes, and to reduce their activity."

Under the heading "the avenues through which medicines are introduced," are discussed the various methods of medication, such as infusion or injection into the veins:—by the stomach, which is the organ best adapted by nature and the one most usually employed:—the *rectum*, as by injections; and here are considered the facts attested by Pereira, Trousseau, Richter, and others, of the influence of various drugs when given per anum, and the doses necessary; some requiring the dose to be increased when thus administered, others being equally efficacious, while

some, as acetate of lead, exert only a local influence. The skin, as a means of administering medicines, is very frequently employed; and when the importance of this organ as an absorbing medium is considered, it is to be wondered that physicians do not more frequently resort to medication by the skin. It must be remembered that as a general rule medication cannot be relied on through the skin. Some medicines, as rhubarb, jalap, croton oil, tartar emetic, and some others, appear to exert trifling action when given in this way; not invariably so, however, as the writer can testify, as in a case of phthisis, recently under observation, he was obliged to discontinue the use of a croton oil liniment which had been prescribed, as it apparently exerted its purgative influence; the purging was for some hours most distressing, and only ceased on giving large and continued doses of morphia. The effect of the croton oil in this case was not at first recognized, as the purging was regarded as of other origin. At the end of a few days the croton oil was again rubbed on the chest, and again followed by most violent and alarming purgation. We may state that the local irritant action of the drug was almost *nil*.

Medicated vapors, or medicines by inhalation, have been used from the time of Dioscorides and Galen, more especially in pulmonary complaints; and recently the pulverizer of fluids has been invented, and put in full operation. By this instrument various medicated waters are thrown into a fine spray, so as to render them capable of inhalation. It has been proved that these vapors do enter the lungs; and secondly, that although vapors generated by heat do not contain the fixed principles of mineral waters, yet that these principles do exist in vapor produced by pulverization. Under the heading "the art of prescribing," are contained many most useful hints not to be found elsewhere. As the author truly observes:

"The successful practitioner is not he who, besides possessing diagnostic skill, is abundantly furnished with medical prescriptions for all diseases, but he who, in every case, knows not only what are the remedies adapted to remove the dominant and permanent morbid element, but also what are the appropriate means of dissipating every subordinate derangement and of influencing every function in such a way as to concur in the prime object of bringing the disease to a safe termination. This is a knowledge which can be very imperfectly obtained from books. It is the result, in most cases, of long practice in medicine by a man whom nature has fitted for its attainment. Few physicians are so highly endowed. It can only be communicated to pupils by a skilful teacher in daily, or still more frequent, visits, at the bedside of the sick. We renounce, therefore, any attempt to reduce such knowledge

to written rules. In this place, we shall merely endeavor summarily to describe the conditions affecting the successful employment of medicines which arise out of the mode in which they are administered."

The arrangement of the work consists of the description of the entire subject under twelve separate heads or classes; such as, class 1, Lenitives; 2, Astringents; 3, Irritants; 4, Tonics; 5, General Stimulants; 6, Cerebro-Spinal Stimulants; 7, Spinants; 8, General Sedatives; 9, Arterial Sedatives; 10, Nervous Sedatives; 11, Evacuants; and 12, Alteratives. Before entering on a description of the remedial agents under each heading, there is given a general view of the *modus operandi* of each class.

We have already extended this review beyond our limits: we cannot however conclude without according our hearty congratulations to Dr. Stillé for having produced a work in every respect worthy of acceptance by the medical profession. To the physician in active practice there is no work in which he will more fully ascertain the therapeutic action of any special remedy; and to the student, these volumes supply a want which has been sorely felt during the last few years. The publishers deserve every commendation; the typographical execution is in the highest style of art, reflecting credit on those under whose auspices the work has been laid before the profession. It is to be had of Dawson Bros., Great St. James Street.

The Functions and Disorders of the Reproductive Organs in Childhood, Youth, Adult Age, and Advanced Life, considered, in their Physiological, Social, and Moral Relations. By WILLIAM ACTON, M.R.C.S. Eng.; Fellow of the Royal, Medical, and Chirurgical Societies. Philadelphia: Lindsay & Blackiston, 1865. Pp. 269. Montreal: Dawson Brothers.

The influence which the sexual passions exert over mankind is greater than any other; and so frequently is the physician or surgeon consulted on matters connected therewith, that it becomes his absolute duty thoroughly to understand the subject, and to do so he must patiently examine everything which can possibly give him light. Mr. Acton was for several years a pupil, and then an assistant, to the celebrated Ricord, of Paris, and beyond a doubt he made a good use of the ample means then at his disposal. His work bears evidence that on this particular subject he is an enthusiast; in fact, his whole life has been devoted to it. He has written a very valuable book, the greater part replete with valuable information and hints to the practitioner. Yet there are some portions of it that we cannot conscientiously commend. Mr. Acton,

in writing his book, beyond a doubt did not intend it solely for the medical profession. His treatment of the social and moral relations of the question would have been much better omitted, and the book made entirely for the medical reader. This portion of the work has too many "cases," which, we fear, will do anything but serve the purpose they are intended; and many of the deductions he draws therefrom are erroneous in our opinion. It is a dangerous thing to allow works of this kind to fall into the hands of the general public. For one that will read and be benefited, twenty will only have their passions more thoroughly aroused. It is astonishing how great the desire among the public is even to get purely technical works on any subject connected with the sexes. At a recent auction sale in this city of medical works, books on midwifery and diseases of the female organs were bid up to prices beyond their value by young men not out of their teens, and knocked down to them. Save this error, then, (which is one of the head and not of the heart, for Mr. Acton is evidently a most conscientious man, and believes he is acting for the benefit of his fellow-creatures,) the work is really a valuable one. All medical men are aware at what a very early age the sexual passions are sometimes aroused, and the baneful results which almost invariably follow. Our author takes up many of the social conditions of life which tend to bring about this sad state of things; but one of the most constant, in our opinion, he seems to have overlooked. We cannot but believe, that the habit of allowing young children of the two sexes to sleep in the same bed is an evil fraught with gigantic results. Our author says:

"My own opinion is, that a long prepuce in children is a much more frequent cause of evil habits than parents or medical men have any idea of. The collections of smegma between the glans and the prepuce is almost certain to produce irritation. But I have never heard of any steps ever having been taken by those having the care of youth to induce boys to adopt proper habits of cleanliness in this respect. Children are educated to remove dirt from every other part of their bodies (where it is of less importance in its consequences than it is here). But probably no nurse, parent, schoolmaster, or even doctor, would at first relish the proposal that a boy of twelve in his bath should be told (for if not told he will not do it) to draw back his foreskin and thoroughly cleanse the glans penis every day. In my own experience of children, I have found this practice so beneficial, that I never hesitate to recommend it in any cases where there is the least sign of irritation from this cause."

Manual of the Medicinal Preparations of Iron, including their Preparation, Chemistry, Physiological Action and Therapeutical Use; with an Appendix containing the Iron Preparations of the British Pharmacopœia. By HARRY NAPIER DRAPER, F.C.S. Dublin: Fannin & Co. 1864.

This volume consists of 130 pages, and contains the mode of preparation and use of all the officinal and unofficinal preparations of iron. To the practitioner in the country, who prepares many of his own remedies, a work like this would be of great value. The author, in his preface, says:

"The object which I have endeavored to attain in the following pages may be explained in very few words. Of late years it has become customary to multiply to a perplexing extent the compounds of the inorganic bodies employed in medicine. It is no part of my intention to criticise this feature of modern pharmacy, or to advance any opinion of my own as to the desirability of a system which, while it has certainly led to the introduction of some very elegant and efficient preparations, has at the same time imposed upon the prescriber the troublesome task of choosing between a great variety of forms of the same remedy, and has rendered it imperative upon the pharmaceutist to keep prepared a collection of salts, solutions, syrups, *et hoc genus omne*, which are in many instances very perishable.

"There is perhaps no remedy to which these remarks more forcibly apply than to the metal iron. Of repute in the treatment of certain diseased conditions from almost the earliest period from which history hands us down any record of medicine, it has continued to acquire popularity, until in our own time we find it holding among therapeutic agents a position not second to that of any other substance. This is without doubt due to the circumstance that iron is one of the few remedies, the action of which is to a certain degree understood, and which, on scientific principles, combats abnormal conditions which can be traced to their origin.

"The plan of arrangement adopted is as follows. The salts are placed in alphabetical order as being the most convenient for reference. Each compound is treated of under distinct heads. Firstly, its preparation is detailed, the best process being selected, or in some cases, as in that of *Reduced Iron*, all the published processes are introduced; secondly, its physical characters; thirdly, its chemistry; fourthly, its contaminations and the tests by which their presence may be determined; fifthly, its physiological action and therapeutical use; and sixthly, the dose in which it may be given. Lastly, formulæ of pills, syrups, and other preparations into which the compound enters, are added."

Elements of Physiology and of Disease. By ED. MAPOTHER, M.D., Prof. of Hygeine, R. Col. Surgeons, Ireland, &c., pp. 567. With one hundred and fifty Illustrations. Second Edition. London: Longman & Co. Dublin: Fannin & Co.

A second edition of this popular manual has been called for in eighteen months, and has become the standard students' book in all the Dublin, and many of the London schools. It differs from all other manuals in combining general pathology with physiology, and we think the idea is good, as it gives the student an interest in details, otherwise often dry and unattractive. The work is concise and well arranged, so that scarcely a single fact of these sciences is omitted, but this renders it a work of constant reference and requiring attentive perusal.

Dr. M. is careful in assigning the authority for every statement, and is particularly just to his co-laborers. The illustrations are excellent, chiefly copied from the works of the German microscopists; and a copious and accurate Medical glossary is added to this admirable students' book.

Life, Health, and Disease; a Compendium of Modern Physiology. By ROBT. HENDRY, L.F.P.C. Helensburgh, Scotland: William Campbell, printer.

This little volume was forwarded to us through the post, for which we thank the publisher—an old and highly esteemed friend. It is a really excellent little book, intended for public circulation, and will doubtless accomplish good. It is neatly printed, as might have been expected, the publisher being a thorough practical Scotch printer.

PERISCOPIC DEPARTMENT.

Surgery.

HINTS RESPECTING THE EXTRACTION OF FOREIGN BODIES FROM THE EAR AND NOSE.

By S. D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia.

All writers upon the diseases of the ear speak of the great difficulty that is generally experienced in removing foreign bodies from the auditory tube. Von Tröltsch, whose work has recently been reproduced in this country, and whose sentiments may be regarded as expressive of the latest views upon the subject in Germany, has uttered this remarkable sen-

tence: "Generally the presence of these bodies in the ear is less injurious than the attempts to remove them." This language, written a little more than a year ago, is full of significance. It clearly shows how incompetent medical men generally are to perform apparently so trifling an operation. Proceeding a little further on, the reader of Von Tröltsch's work meets with another curious sentence. "If," says he, after alluding to the swollen condition of the ear, and the impossibility of dislodging the intruder with the syringe, "a case came under my observation where an impacted body produced such symptoms as to indicate an energetic mode of treatment for its removal, and delay was not practicable, I should hasten to extract it by an operation, by making an opening through the wall of the meatus, so as to admit of its being approached and seized from behind." In speaking of the difficulties of such a procedure, he adds: "I have, however, satisfied myself on the dead body that it is easy to separate the auditory tube from the squamous portion of the temporal bone, and thus with a curved aneurism needle reach the membrane of the tympanum. The operation is doubly easy in children in whom there is hardly any bony canal." The means which Von Tröltsch recommends in ordinary cases for effecting dislodgment of foreign bodies are Daviel's curette and injections of water.

"Rude efforts," says Mr. Wilde, "made to extract foreign bodies from the ear are as likely to cause mischief as these bodies themselves." The means which he advises for accomplishing the object are the syringe, curette, spatula, and toothed forceps.

Mr. Toynbee, no mean authority upon any subject relating to the diseases of the ear, in speaking of the extraneous substances in this organ, remarks: "Cases are sometimes met with in which the most lamentable results have followed attempts at removing foreign bodies by instruments. Death itself has not infrequently happened; and where the life of the patient has been spared, the ear has sometimes been destroyed and the portio dura nerve paralyzed." The syringe and tepid water are the means upon which Mr. Toynbee chiefly relies for the removal of all rounded solid substances. For the extraction of wool, cotton, paper, rags, and other soft material, he employs, when injections fail, a pair of levering forceps, an instrument of his own invention.

The above passages, representing the views of three of the most distinguished aurists of the present day, are quoted for the purpose of showing the most approved methods of extracting foreign bodies from the ear, and the violence that is often inflicted in rude attempts of this kind. From the fact that the works of these authors, especially those of Wilde and Toynbee, have been widely circulated in this country, it may fairly

be assumed that the practice inculcated in them is the one generally pursued by our medical men. Not long ago I read in the report of a discussion before a learned body in a neighboring city, that the best instrument for extracting a foreign substance from the auditory canal was an ordinary pocket probe bent at the extremity; and, as the remark was made by a distinguished professor, I take it for granted that he is not the only surgeon in this country who thinks so.

For a number of years past, I have entirely limited myself, in the extraction of foreign bodies from the ear, to the little instrument delineated in the accompanying sketch, originally described in my System of Surgery, and now regularly put up in all the ordinary pocket cases manufactured in this city. Composed of steel, and therefore entirely inflexible, it is about five inches and a quarter in length, very light and delicate, cylindrical and somewhat rough at the middle, to afford a good hold for the thumb and fingers, spoon-shaped at one extremity, and furnished with a little tooth or prong at the other. This tooth, which projects at a right angle from the shank of the instrument, is exceedingly small, and therefore admits easy insinuation between the foreign substance and the auditory canal. The curette or spoon is also very delicate, and bent considerably more than the ordinary cataract curette. Provided with such a contrivance as this, no surgeon, however unskilful or inexperienced, can possibly fail in his object.

The plan which I always adopt, when a case of foreign body in the ear is brought under my notice, is to place the patient in an easy recumbent position, with the head slightly raised upon a pillow, and to administer chloroform to the extent of entire obliviousness. This is absolutely necessary when the patient is a child, or a nervous, excitable adult. The operation is greatly facilitated if there is a clear light, although this is by no means indispensable. Taking hold of the upper and back part of the concha, and pulling it gently so as to efface the curve at the entrance of the ear, I carefully pass the narrow extremity of the pick sidewise between the intruder and the wall of the meatus, and bringing the little tooth or prong behind it, I readily jerk it out, no matter how deeply it may be buried by a kind of lever movement with the handle of the instrument. The operation is generally the work of a few seconds, and is altogether free from hemorrhage. No possible injury can be inflicted upon the meatus, much less upon the membrane of the tympanum, if proper caution is used in the management of the pick. In this manner I have extracted quite a number of substances of various kinds, as pieces of slate pencil, grains of corn, beads, pebbles cherry-stones, in most cases after vain attempts at relief had been made by practitioners and others. When the substance is

very small, the object is sometimes most readily attained by the use of the curette, but in general the prong is altogether preferable, whatever may be the form, size, or consistency of the body, whether round or angular, small or large, hard or soft. A pebble, grain of coffee, bug, or pellet of paper, wool, or cotton, may all be equally easily extracted. Ear-wax, however hard, or however firmly impacted, is more readily removed with such an instrument than with any other contrivance of which I have any knowledge.

Insects may, in general, be readily dislodged by filling the ear with water or oil, which has the effect of suffocating them. When they are dead, they may be promptly extracted in the same manner as any other extraneous matter.

There are certain rules to be observed in the extraction of foreign bodies, no matter what means may be employed for the purpose. In the first place, the surgeon should be perfectly satisfied that there really is an extraneous substance in the ear; or, in other words, that the patient is not laboring under a false alarm. Such an occurrence is by no means uncommon, especially when the individual is a nervous, excitable female, impressed with an idea that a bug has passed into the ear, or that the head of a pin has fallen into it. A careful inspection with the aid of a good light, either solar or artificial, will be the safest guarantee against any error of this kind.

Secondly. The meatus should never be meddled with when, in consequence of previous efforts at extrusion, it has become severely inflamed and more or less swollen. Here the proper plan is to wait until, by leeches to the inside of the tube, active purgation, light diet, and other measures, the morbid action is sufficiently subdued to admit of the requisite manipulation. The want of this precaution has sometimes led to violent inflammation, seriously imperilling life. The ear, if left alone, is generally remarkably tolerant of the presence of foreign bodies, even when rough or of large size. Not long ago I removed, at the clinic of the Jefferson Medical College, a large cherry-stone, which had been lodged deep in the meatus of a little girl for seven years, without any other inconvenience than slight occasional dizziness.

Thirdly. The foreign body is sometimes concealed by blood, pus, or cerumen, thus necessitating the use of the syringe and tepid water, before an attempt is made at extrusion.

Fourthly. The after-treatment should be conducted upon general antiphlogistic principles. Ordinarily little, if anything, is required. It is only when the parts have been rudely handled that active measures will be needed, and even then the case will usually yield to a brisk purgative,

and the application of a few leeches to the meatus, along with a few doses of Dover's powder. Should the brain be threatened, blood must be freely taken from the arm. The syringe with tepid water, simple or medicated, will be required if there is any considerable discharge of matter, especially if it is offensive and irritating.

I do not wish to be understood, from what precedes, to say that I disapprove of the use of the syringe for the removal of foreign bodies from the ear. The operation, if properly performed, is frequently crowned with success; but it is often tedious, always disagreeable, and sometimes wholly inadequate. Wool, cotton, paper, cloth, and similar articles may often be easily and successfully removed with the forceps. As to the pocket probe, bent at the point, no one who knows anything of the nature of such an operation would ever think of employing it. The idea of separating the auditory canal from the squamous portion of the temporal bone, with a view of obtaining access to the extraneous substance, as suggested by Von Tröltsch, is so absurd that it ought to be ranked among the exploded notions of the barbarous ages.

The removal of foreign bodies from the *nose* is usually, in the hands of the general practitioner, an operation of great difficulty; quite as much so, indeed, as the withdrawal of an extraneous substance from the ear. The efforts that are made to accomplish the object are commonly of the most misdirected and herculean character; the struggles of the patient, ordinarily a child a few years old, are violent, if not, uncontrollable, and the result too often is a bloody fruitless battle, not less distressing to the parents than discreditable to the surgeon. This is not an exaggerated picture. A practice of upwards of a third of a century has afforded me many unfortunate illustrations of its truthfulness; and yet the operation, if properly performed, is one of the most easy and simple in surgery. As commonly executed, its effect is, not extrusion of the foreign body, but its further and deeper impaction in the nose. The instruments generally employed are the forceps, a grooved director, or a probe bent at the extremity. Need we be surprised that frequent failure should be the result under such circumstances? The extraction of an extraneous substance with such contrivances is altogether a blind procedure. The surgeon who succeeds with them deserves great credit for his good luck; for, really, it amounts to nothing else.

My practice in these cases is simply this. In the first place, the child must be properly secured. If he is very strong and rebellious, he should be wrapped up in a sheet or apron, to prevent him from using his hands and feet. Chloroform is seldom necessary. The head, inclined slightly backwards, should be immovably fixed by an assistant, while another

assistant holds the patient upon his lap. The small extremity of the "ear-pick" is then carried flatwise upwards into the nose in the direction of the bridge, until it is fairly beyond the foreign body, when, the point being depressed, the little hook or tooth is at once brought in contact with the substance, and extrusion effected by a kind of jerking or wriggling movement of the thumb and fingers. The operation is generally over in a few seconds. Trouble can arise only when the substance, in consequence of previous abortive efforts, has been pushed back into the nose, or when, as occasionally happens, the nostril is filled with blood. I have myself never encountered the slightest difficulty with the instrument in question, and believe that failure in any case is impossible, if it is judiciously used.

Practitioners generally do not seem to be aware that foreign substances in the nose are commonly situated very superficially. In most cases, they occupy the entrance of the nostril, resting against the anterior extremity of the inferior turbinated bone, or between this bone and the nasal septum. It is seldom that they are pushed by the child into either of the chambers of the nose, even when they are of small size. If rude and protracted attempts, however, have been made at extraction, the probability is that the body will be found upon the floor of the nostril, or firmly wedged in between the turbinated bone and the nasal septum. In such an event, the operation will be more difficult, but still perfectly feasible. In a case under my charge not long ago, the substance, a small bean, had been pushed far back into the inferior meatus, and I was in doubt, for a few moments, whether it could be reached. Keeping the point of the instrument in close contact with the surface of the turbinated bone, I soon succeeded in passing it beyond the extraneous body, which was then extracted with the greatest facility.

As foreign bodies in the nose are invariably productive of more or less irritation and fetid discharge, they should always be extracted as speedily as possible. In a case reported by Dr. Hays, the able editor of this journal, the substance, a glass button, kept up incessant inflammation and suppuration for upwards of twenty years. Its extraction was followed by a speedy cure. Whenever a young child is brought to a surgeon with a fetid discharge from the nose, especially on one side, a careful search should be made for the presence of an extraneous substance. A few months ago, a stout, fat child, twenty-one months old, came under my observation on account of a very profuse and offensive profluvium from one of its nostrils. Suspecting the existence of a foreign body, I carefully explored the affected cavity with my instrument, and, much to the surprise of the mother, brought out a large paper pellet.—*American Journal of Medical Science.*

Medicine.

CASE OF EMPYO-PNEUMOTHORAX, WITH SOME PECULIAR SYMPTOMS—DISSECTION.

Under the care of Dr. Benson. Reported by David B. Hewitt, L.R.C.S.I.

McDonnell, aged 24, a servant, states that he has usually enjoyed very good health, has been of temperate habits, and has not at any time been much exposed to cold or wet.

His father and mother are alive and in good health, and none of the family are at all consumptive. He never spat blood, nor suffered from any other symptom that would lead one to suspect that he had any pulmonary disease, except that some time ago he had a pleurisy in the right side, and he has had a slight cough for the last two or three months.

Early in the morning of the 17th February he was attacked with a violent pain under the right nipple, shooting up to the shoulder. He went about his work, but was soon compelled to return home, when he had a severe rigor, and he says the shivering was then so violent that he felt as if he could sit on the fire; he was also attacked with great difficulty of breathing and weakness. Not having obtained any relief from the symptoms, he was admitted into the City of Dublin Hospital on the 19th February, under the care of Dr. Benson.

The patient is of low size, with light hair and sandy whiskers; his face is pale, and indicative of distress; his breathing quick and short, 42; pulse 140 in the erect posture, 120 when he is recumbent; it is regular, but weak. He complains much of pain on inspiration. Tongue moist and creamy; secretions normal. His chest does not appear sunken nor in any way contracted on either side, neither are the clavicles unduly prominent, nor is there any general or partial dilatation of the chest. On deep inspiration the left side seems to expand a little more than the right, but this is not apparent in ordinary respiration. There is a slight shade of dulness on the right side anteriorly, but when he sits up the lower part of that side yields a decidedly dull sound. On auscultation the respiratory sounds are very obscure all over the right lung, very little air appearing to enter, although the side expands well, and there is much of it quite clear, though not tympanitic, on percussion. There is puerile respiration on the left side.

The patient being placed on his face, and the stethoscope applied between the sixth and eighth ribs, a little to the outside of the angles, a sound is heard on inspiration like that made by a person blowing into a

Florence flask, and when he speaks, his voice, as communicated to the ear, is of a distinctly amphoric character, followed by a loud echo.

Habeat vesicatorium lateri dextro applicandum.

℞ Pulv. ipecac. comp.
Pulv. ant. aa. grs. vi.
Calomel. gr. iii. M.

Pt. massa in pil. vi. divid. sumatur una 3tia quaque hora.

Feb. 20th: He is a little better, and complains much less of the pain. Respirations 36; pulse 116, very weak and compressible. Ordered wine, beef-tea, &c. Rept. pilulæ.

21st. The dyspnœa is much less urgent; pulse same as yesterday. The dulness on percussion at the base of the right lung, when he is in the sitting posture, is much greater to-day; it is, however, replaced by a sound which is almost tympanitic when he lies on his face, indicating the presence of liquid which gravitates, and of air which, floating, gives rise to the hyper-resonant sound. In this position, also the amphoric breathing, voice, and echo, are best heard, and when he takes a deep inspiration, metallic tinkling may occasionally be distinguished. When shaken, while on his hands and knees, the ear being at the same time applied to the chest, a loud splash is audible.

22nd: Breathing much easier; his countenance is more tranquil; amphoric voice not so well marked; no tinkling nor splashing sound audible. Respirations 36: pulse 120, weak and compressible.

From the above date until the day on which the succeeding note was taken nothing of interest arose in the progress of the case; the pulse diminished a little in frequency, and the amphoric sounds remained slightly audible. His appetite was pretty good, and as Dr. Benson thought that the chief indication was to support his strength, he was ordered a liberal diet—viz., mutton, porter, wine, bread and milk in the day, and punch at night.

March 7th: *Amphoric sounds are not audible in any position.* Splashing sound on succussion is still very well marked. Pulse 120, more full than before; respirations 32. He states that he feels much stronger.

16th: Complains much of a chill in the evenings, and that he perspires a great deal at night from the entire surface of the body. He has a slight cough.

℞ Decoct. cetrariæ, ℥ v.
Syr. tolut. ℥ ss.
Acid. sulph. dil. ʒ i.
Vin. ipecac. ʒ i. M.

Sumat. coch. amp. 2tia quaque hora.

23rd: There is still air and liquid in the cavity of the pleura, as, in whatever position the patient may be, the dependent parts of the right side are very dull, while those uppermost yield a morbidly clear sound.

Pulse in a recumbent posture - - 130
Pulse in sitting posture - - - - 144
Pulse in upright position - - - - 160

April 1st: The voice is slightly amphoric when heard in the subaxillary region.

4th: The patient's countenance is much clearer and more indicative of ease; he is gaining flesh, and his appetite is improving; he perspires a good deal at night. The heart is pushed over to the left side, the apex pulsating an inch to the left of the nipple: the sounds are perfectly normal.

℞ Olei morrhuæ, ℥ iv.

Coch. minimum ter in die sumend.

17th: He has taken the cod-liver oil for nearly a fortnight, gradually increased to a tablespoonful each time. It has agreed well with him, and he has gained flesh under its use.

℞ Syr. ferri. iodidi, ℥ ij.

Coch. parvum ter in die cum oleo morrhuæ.

19th: Complains much of soreness of the right side, produced apparently by the pressure of the fluid, which has been increasing in quantity. This was subsequently much relieved by the application of belladonna plasters. The amphoric sounds have entirely disappeared, but the Hippocratic fluctuation is so well marked that it may be distinctly heard when he turns suddenly in bed. The excessive clearness on percussion yielded by whatever part of the right side might happen to be uppermost has been replaced by marked dulness, except over a circumscribed area under the right nipple, and another at the base of the right lung, where the sound on percussion is well nigh tympanitic in every position of the patient.

May 3rd: The dulness is becoming more general; the pulse is very rapid, and a loud systolic murmur, rather rough in its character, is to be heard now for the first time at the apex of the displaced heart. The right side seems larger, both antero-posteriorly and circumferentially, than the left; the intercostal spaces bulge out considerably.

From this date the liquid gradually increased in quantity; he complained, from time to time, of a feeling of oppression in the left side, which was evidently produced by the pressure of the accumulating fluid on the healthy lung; the pulse became even more rapid, and the dyspnœa more urgent, so that Dr. Benson, in consultation with Drs. Geoghegan and Croly, determined to have the fluid drawn off.

Accordingly, on the 31st, Mr. Croly, having made an incision about an inch in length along the upper edge of the fifth rib, at the origin of the serratus magnus, through the integuments and fasciæ, introduced a trocar into the cavity of the pleura. In doing this, considerable difficulty arose from the thickened state of the pleura, which also prevented the point of the instrument from being distinctly felt when projected against the parietes from within in an intercostal space lower down through which it was intended to pass a drainage tube.

On withdrawing the stilet, there was a rush of fœtid gas through the canula, followed by a flow of purulent matter, amounting to about three pints. It was then determined to enlarge the opening into the pleura so as to allow the fluid to drain away as it collected. A fold of lint was placed over the opening, a broad bandage round the chest, and the patient was put to bed and got four ounces of wine. Immediately after the operation he experienced considerable relief, the oppressive dyspnœa which he had suffered from for several days being replaced by comparatively easy breathing; he felt very weak, however, and complained a great deal of the soreness of his side. On measurement, the side was found to have decreased greatly in girth, being two or three inches less than before the operation. On the following and succeeding days the bandage was removed both morning and evening, and the side dressed. When he sat up, inclining slightly to the right side, and coughed, there was a flow of purulent matter from the opening; this, however, gradually decreased in quantity, and it soon became evident that the opening was closing. At the same time he felt his breathing easier and his strength increasing. Still the pulse remained very quick and weak; the systolic murmur at the apex of the heart was no longer audible.

On the 11th of June, the discharge from the opening having been almost *nil* for two or three days, there was suddenly a tremendous gush of horribly fœtid pus, accompanied by equally fœtid gas, the former amounting to about two quarts.

For some time there was a free discharge from the opening of a very fœtid nature. The thorax was wrapped in a folded sheet, this being found to be the best, and to the patient the most agreeable method of dressing, and this was renewed three or four times in the twenty-four hours. So fœtid was the pus, that it was only by means of quantities of chloride of lime, and having the windows open night and day, that the ward could be kept at all bearably free from the smell, which was rendered still worse by the very hot weather then prevalent. Notwithstanding this, combined with the great drain on his system, the patient improved, his appetite was very good, his tongue clean, and the bowels even costive. He con-

tinued taking the cod-liver oil and syrup of the iodide of iron, which agreed pretty well with him.

On the 15th of June, Dr. Benson was surprised to find that under the right clavicle, down as far as the fourth rib, was quite tympanitic—this was persistent in every position of the patient—while the adjoining parts of the chest were quite dull. This phenomenon continued for some days, and then became gradually refined down into almost the normal sound yielded by the other lung. Slight respiration might be heard in the interval between the angles of the ribs and the spine; this Dr. Benson attributed to the conduction of the sounds along the parietes of the chest from the healthy lung.

Towards the end of June the opening again manifested a tendency to close, the discharge decreased, he felt much oppressed, and it became evident that the fluid was once more collecting, so that it was thought advisable to have an opening made that would allow a free exit of the puriform fluid, and at the same time not be likely to close up.

On the 2nd of July the opening was enlarged to the extent of two inches, when much gas and some fluid was liberated, which gave the patient decided relief.

The copious discharge every day soon began to tell upon the patient's strength and appetite, his pulse became faster, and his face, which hitherto was plump, began to get thin, and he could not take the oil as well as before.

On the 19th of July he complained that the bowels, which, during all his illness hitherto, were costive, were now too free, and also that he had much pain in the hypogastric region. He was ordered chalk mixture and opium.

On the 20th, the diarrhœa was unchecked, the motions were frequent and watery, he had lost ground to an extraordinary degree, his cheeks were pale and sunken, and he felt very feeble. Ordered punch, wine, &c., ad libitum.

℞ Acetatis plumbi. grana quindecim.
Aceti destillati. ʒ i.
Liquoris acetatis morphiæ, ʒ i.
Aquæ destillatæ, ad ℥ viii. M.

Sumatur cochleare amplum post singulas sedes.

21st: Diarrhœa slightly abated; complains much of thirst.

23rd: Diarrhœa still continues, and is evidently running him down very fast. Evacuations watery, accompanied by some pain during defecation. Meat to be discontinued. Mulled port wine to be freely given.

℞ Acetatis plumbi, gr. vi.
Pulveris opii, gr. vi. M.

Divide in pilulas, sex sumat unam secunda quaque hora. Habeat vesicatorium epigastrio.

On the morning of the 24th, the diarrhœa had very much abated, only two motions during the night; he is, nevertheless, greatly enfeebled; pulse rapid and thready. About two o'clock, the patient having endeavored to get out of bed, fainted, and it was only by pouring hot punch down his throat that he was at length revived. He never rallied perfectly, and about four o'clock he passed away without a struggle.

Autopsy eighteen hours after death.—On raising the sternum and costal cartilages some very fœtid gas escaped from the right pleural cavity. The lining membrane was found greatly thickened, and its free surface covered with a thick purulent exudation. There were about three or four ounces of fœtid pus lying in the depression between the bodies of the vertebræ and the angles of the ribs. The lung was seen, not larger than an ordinary human heart, lying on the side of the vertebræ, and bound down by layers of lymph. It was of a peculiar nodulated appearance externally. Some of the elevations were as large as a walnut and pretty hard. Diligent search was made for any marks of a cicatrix os fistula, but without success. On cutting into the lung, it was found to present a most excellent example of carnification, the section of the knoblike elevations presented some well-marked tubercular deposits that had not undergone softening. There was not the slightest trace of the presence of a cavity, either recent or old, and there was not much tubercle to be found; no air could have entered the lung; its section was precisely like that of a muscle.

The left lung was found to be scattered over with small hard deposits of tubercle to a much greater degree than the right; but there was no cavity, nor any trace of softened tubercle. The heart was of normal size, and the valves were found healthy, with the exception of a trace of thickening in the mitral, which, however, was so slight as not to be easily recognized.

The side was very much contracted, the ribs having fallen in to a great extent, yet there was an immense cavity filled with air and lined with a false membrane, which acted as a pus-secreter.

The foregoing case presented some peculiarities, to which Dr. Benson directed attention in his clinical observations:

1st. The symptoms and physical signs plainly showed that this was a case of empyo-pneumothorax arising from a communication with the lung.

2nd. The communication most probably occurred two days before admission into hospital.

3rd. The total absence of any symptoms of previous pulmonary disease created a doubt as to the cause of this communication. Could it have been, as is most usual, the bursting of a tubercular abscess? No preceding symptom favored this view, nor did any dulness on percussion in the upper part of the thorax support it, yet this was considered the most probable cause. Had the pleurisy which occurred some time before anything to do with it?

4th. It was remarkable that tympanitic clearness on percussion was to be heard for some days in situations and under circumstances not easily accounted for, as at the base of the right lung, where dulness generally prevailed. It did not appear to depend on the stomach.

5th. The murmur at apex of heart was a very rare, if not unique phenomenon, caused, as would appear, by the displacement of the organ. It could not be anæmia, it was too rough for that, and it was not heard at the base, and it ceased as soon as the heart recovered its normal position. Semilunar murmurs are sometimes occasioned by displacement of the heart, but not mitral ones.

6th. The post-mortem did not reveal any abscess; but there were tubercles in the lung, not enough perhaps to produce decided symptoms of phthisis before the occurrence of the pneumothorax, but yet such that one of them might have penetrated the pleura pulmonalis before it had formed adhesions to the pleura costalis, or was capped with layers of lymph, in which case the air might slowly get into the pleural sac (with a little pus), as we may suppose was the fact, from the mild way in which the pneumothorax set it. The further development of tubercle in that lung was prevented by the pressure exercised upon it by the air, which caused its collapse and carnification. The other lung, "the sound one," contained a greater number of tubercles, and in a more advanced state.

7th. This patient lived longer than the average time, and we may conclude that he owed this to the fact that he had very little tubercular disease when the pneumothorax commenced.

THE TREATMENT OF LACERATION OF THE PERINÆUM INTO THE RECTUM DURING PARTURITION.

By Dr. T. Robinson.

In the *Medical Times and Gazette*, August, 1861, I drew attention to the succesful treatment of severe laceration of the perinæum and rectum by simple means, adapted to retain the parts in undisturbed approximation, and allow union by first intention. Subjoined is another instance of the success of this plan. In this case the rectum and vagina

were made one large opening, the rent, two days after the accident, being several inches in length.

The subject was a primipara, aged 30 years, with a vagina so small that the conjugal rite could not be consummated until artificial means to dilate it had been resorted to. At the full period of gestation labor came on, and after twenty hours of steady natural uterine action a large dead child was born. The vagina preserved its integrity during the passage of the head, which was very soft and pliable, and of low temperature. Death had occurred probably a few days before. The shoulders were delayed some time on the fourchette, and at length suddenly expelled by a violent uterine effort, laying open the vagina into the rectum to a most formidable extent. On the second day, observing that fæcal matter had passed through this recto-vaginal opening, I cleared out the intestines by an aperient, and afterwards gave opium, and adopted a limited diet containing very little solid matter—so that the descent of fæces into the rectum might be retarded,—and having washed the parts free from all excrementitious matter, I bound the knees together, and desired the patient strictly to avoid all movement of the lower half of the person, to maintain the parts undisturbed. This plan was pursued during eight days, when a general union was apparent; an enema to unload the bowel was given, and the patient allowed to get out of bed. From this time she might be considered recovered; the parts have continued sound and whole to the present date—a period of two months.

That laceration of perinæum, short of implicating the rectum, is a common accident, and may be left entirely to nature with safety, is an axiom in midwifery substantiated by daily experience; and I wish to impress that very extensive injuries opening up the rectum may be cured by adopting means to prevent the torn surfaces being disturbed, and to induce healing by first intention. The means for attaining this object are, first, keeping the patient for several days on food containing very little solid matter, which in its descent into the rectum would disturb healing; secondly, opium daily to constipate the bowels; thirdly by preventing movement of the lower limbs as much as possible. At first the knees should be bound together. Patients become very weary of this after two or three days, and it may be discontinued, or was done in the above and other cases I have had—it being forcibly impressed on them that they must not separate the thighs,—cautious flexion is not hurtful.

Should these means fail, we can then have recourse to "paring and stitching," with the usual chance of success.—*Medical Times and Gazette.*

Canada Medical Journal.

MONTREAL, JANUARY, 1865.

Ere this number reaches our readers the year 1864 will have passed away. During its passage our *Journal* was started at the urgent solicitation of many practitioners who felt the want then existing, for the establishment of a medical periodical, which it was hoped would receive the support of the entire fraternity, and become the organ of the medical profession in Canada. On our part we promised no effort would be wanting to make the *Canada Medical Journal* worthy of support. Six numbers have already been issued, and they are sufficient to illustrate how far we have kept our pledge. To those who have contributed original communications we give our hearty thanks, and trust that in future they will not forget us. We appeal, to those who have not favored us yet, we trust not in vain, for some records from their experience. With regard to the success that has attended our efforts, we can only state that our subscription list is amply large to repay our expenses, provided there are no defaulters. With these few remarks we heartily wish our readers a very happy new year and all the compliments of the season.

It appears that the proposal, contained in a former number of this journal, to establish an officer of health for our city, is likely to miscarry; it is a suggestion which sooner or later must be entertained.

We have alluded to the imperfections existing in our system of registering births, marriages, and deaths. As the law at present applies, a person can pass through all three stages without the evidence of his very existence appearing on our records. This is an assertion which may at first stagger the reader, but it is nevertheless true in every particular. There is no law rendering it obligatory on all physicians, midwives, or parents to register the birth of a child within a given period; and were it not from respect to the teachings of religion, one half the children born would never be enregistered; as it is, many children are baptized whose names never appear in the public register, a fact of significant importance,

taken in connection with the evil results which may follow, causing endless litigation and misery to individuals. In proof of the above allegation we can give a case in point. A personal friend succeeded to property,—he was obliged to prove that he was the grandson of the testator. No evidence of his baptism or registration existed, so that he had to fall back upon the testimony of persons who had been present at the ceremony in one of the churches in this city. The parties who had actually signed the church register were forthcoming, but the register itself was wanting. We presume that by some unlucky circumstance the clerk had omitted to place his name in the copy which is of record in the office of the prothonotary; the church register had been destroyed by fire. The system, as at present administered, is cumbrous and imperfect, and will so remain until a general law for the whole Province is enacted, taking as a model the registration law of Great Britain, which is found to be efficient, and has done more than any other enactment to develop the present system of sanitary improvement.

On the results arising out of the returns of the registrar general for England, are based scales or tables which guide life assurance companies in the acceptance of risks at certain rates of premium. In fact the sanitary improvements of the old world take the form of a science, which is well worthy of careful study, and deserving of adoption in a country like Canada. We do not see that an alteration in our registration law should be attended with expense to the country, nor need it be oppressive on the people. It is customary, we believe, at all baptisms, to pay a registration fee of half a dollar. This fee goes to the clerk for his trouble of recording half a dozen words. The clergy of those churches where baptism is recognised as a sacrament, refuse all remuneration.

Between five and six thousand children are baptised in our city every year, and yet this does not give a correct estimate of the number born; but still, for the sake of argument, this would yield a large sum, which, if properly managed, would, with other registration fees, yield a revenue; and at the same time pay all the expense of an efficient and well-worked system.

These suggestions we offer with all due respect to our legislators, and trust that something may yet be done to remove the stigma of "the black north," so freely applied to us, and we fear most justly. There are many reforms needed, not alone in our registration system; but as this appears to be a matter which is the first step to a correct knowledge of the value of human life in our country, we are in a measure forced to bring it before the public with a hope that some good may result. It is

a subject that has engaged our serious attention for years, but circumstances have prevented its being alluded to before. All who give the matter a thought will admit the necessity for a change. We will again refer to this question in a future number of our journal.

BRATTLEBORO' LUNATIC ASYLUM.

Dr. Rockwell, the Superintendent, has forwarded us the twenty-eighth annual report of this asylum, and from it we learn that there were remaining at the commencement of the year, four hundred and forty-two patients. One hundred and twenty-eight have been admitted; one hundred and twelve have been discharged; and four hundred and fifty-eight now remain. Of those discharged, fifty-two have recovered.

We have invariably contended that an asylum should always be connected with a farm, and on this point the report thus speaks: "The benefit of the farm as a curative means is invaluable. Pleasant employment is the great moral means for the restoration of the patients, and no employment is so beneficial for the male patients, as that which requires exercise in the open air. By it the physical health is improved, the mind is diverted from its delusions, and the patients have the satisfaction of having done some good to themselves or others. The farm is managed with such success that its productions add greatly to the comfort and support of the Institution."

In a previous number of the *Canada Medical Journal* the attention of the Government was earnestly called to the absolute necessity which existed for the establishment of a lunatic asylum in the neighborhood of Montreal, and every month the necesssity is increasing. It is at least common sense to suppose that those suffering from mental derangement will be more likely to be benefited by being early brought under proper treatment. On this point Dr. Rockwell, the able Medical Superintendent, in his report says: "The importance of placing an insane friend in an asylum in the first stage of the disease, cannot be too often repeated and enforced. This subject is much better understood than formerly. Still many are disposed to keep them at home in the hope the patient may recover, without the trouble of removing them to an asylum. If the disease is mild, they too frequently pursue this course, until the time for restoration is past."

"It should be well understood, that chronic cases are far more difficult to recover, and those of long duration are generally incurable; while recent cases of insanity are as curable as those of other diseases of equal severity."

"All recent cases should be placed in an institution of this kind, before

those organic changes have taken place in the brain and nervous system, which render recovery hopeless."

The policy of our Government on putting off, what they must do ere a great while, is penny wise and pound foolish. There are many lunatics in various parts of Lower Canada, who, from want of treatment at the proper time, have become confirmed lunatics, and must eventually become a permanent burden on the Province. As an illustration of the necessity of another asylum we will mention a case occurring in our own practice. In the early part of the past summer a young married lady of this city was suddenly seized with hysterical mania. Owing to surroundings, and the conduct of injudicious friends, the case rapidly became worse till symptoms of acute mania set in. Application was immediately made to Government to have her admitted to the Beauport or other asylum, as her friends disliked sending her out of the Province, but the answer was; all full—when a vacancy occurred she would be admitted. Upon private enquiry we found that the applications unfulfilled previous to this one were so numerous, that months would likely elapse, ere a vacancy would occur for this patient. She was accordingly at our advice immediately removed to the Brattleboro' asylum—placed under the care of Dr. Rockwell—and in less than three months, she returned home perfectly well—and better in general health than she had been for years. Several weeks after this, an order for her admission into the asylum at St. Johns was received. Had the husband of this lady been poor and unable to pay for her maintainance in the asylum of a foreign state,—had he from force of circumstances been obliged, to wait till a vacancy occurred in our own asylum, there is no doubt that her chances of recovery would have been reduced a hundred fold. Our gaol constantly has seven or eight lunatics, often more, waiting for a vacancy to occur, and while confined in the prison, each day but renders recovery more hopeless. Can any thing speak louder than this as to the imperative necessity, which exists for the *immediate* erection of an asylum near this city, with all the modern improvements. In the mean time we commend the asylum at Brattleboro' to our brethren who may wish to find a suitable retreat for insane patients. The situation is lovely—the attendance all that can be desired—and the terms moderate in the extreme.

THE CARMICHAEL SCHOOL OF MEDICINE, DUBLIN.

Dr. Frazer, lecturer on Materia Medica, in this school, has forwarded us an account of the opening of their new building, on the 13th November last, when the introductory address or lecture was delivered by Dr. Robert McDonnell, in the presence of all the leading medical men

of Dublin, and a large concourse of sudents. The building, from the description given, seems to be admirably adapted to the wants of a first class medical school, the floor of the dissecting room being tiled—and for the purpose of cleaning can be flushed with water—no small advantage. Its cost was £6,000 sterling, and it is owing to the noble generosity of the man whose name the school bears, that it now occupies so magnificent a structure. Dr. Carmichael—a name familliar to every Dublin student was one of the original founders of this school, and on his death by accidental drowning, in 1849, at the age of 69 years, it was found, that he had bequeathed among many other legacies for the advancement of medical science, the sum of £10,000 sterling to this school, which was to be paid over on the decease of his wife. Of this, £8,000 was to be used in the erection of a building to be used by the school, and the interest on the remaining £2,000 was to be distributed in prizes to the students. His widow, however, desirous to see the wishes of her noble husband carried out while she yet lived, generously handed over the amount bequeathed, and we are glad to say she has been permitted to witness their completion. Dr. McDonnell's address gives many interesting facts concerning the life of Dr. Carmichael. One passage alone we quote, to show his generosity and nobleness of spirit towards the junior members of the profession. "A second address was presented to him by the Fellows and Licentiates of the College of Surgeons resident in Dublin at the termination of his third presidentship, to mark their appreciation of " his unceasing exertion in promoting the best interests of the profession, and of the kind encouragement which he on every occasion extended towards its junior members." In reply to this address he announced his intention to take an important step as regarded his private practice for the future, which was almost unexampled for its liberality. He said:—" Since the termination of my year of presidentship I have relinquished all practice, except in my own house or in consultation with a qualified practitioner. This determination has in a great measure arisen from a desire to show a good example to my cotemporaries, which I hope in due time they will follow for the benefit of their juniors."

APOLOGY.

We must apologise to the publishers who have so liberally forwarded to us copies of their new Medical publications, for the delay that has taken place in their review. The serious illness of Dr. Campbell threw the entire editorial charge upon the senior editor, who, in attending to private practice, Hospital and College duties, had but little time left at his disposal to give that attention to new works, which they merit.

ASYLUM FOR THE INSANE.

The east wing of the new lunatic asylum at Kingston will be occupied this month by about one hundred insane patients. The west wing and centre of the building are finished, but await the interior fittings. The entire structure is built by convict labor, of stone quarried on the public land, and at one third or one half the expense the building would otherwise have cost. A similar institution must be erected at Montreal if the demand for asylum accommodation in Lower Canada meets with the attention it requires.

The dried stems of the *Laminaria digitalia*, or sea-tangle, have been introduced and extensively used as a substitute for tents in surgery. They possess the property of being easily bent at any angle required by the operator. Secondly, they absorb moisture from tha secretions, and expand to five or six times their size when introduced; and furthermore assume their original straight positions. Sea-tangle has been recommended and used in various uterine affections, especially where there is any obliquity of the organ, and when the surgeon is desirous of dilating the os and cervix uteri.

CINCINNATI LANCET AND OBSERVER.

The *Canada Medical Journal* has been regularly sent to the above address; we note the missing numbers and have had them forwarded.

MEDICAL NEWS.

Two quack doctors in London were recently convicted of conspiracy against a captain of the 50th Regt. Seeing their advertisement he applied to them and received medicine, for which he appears to have paid roundly. Finding he derived no benefit he discontinued using their prescriptions, when they demanded £150, in default of which they would expose him. The Captain resisted, had them arrested, and they were sentenced each to two years' imprisonment at hard labor. — Mr. Price, F.R.C.S., Assistant-Surgeon to Kings College Hospital, London, died on the 13th November last. Next to Ferguson of London and Jones of Jersey, he did more to bring excision of the knee joint into the position it now occupies as a justifiable surgical operation than any other man living. Tuberculosis was the cause of his death. He was not forty years of age. — When Sir David Brewster delivered the introductory lecture at the opening of the Edinburgh University Session, the conduct of the students was disgraceful. They pelted peas at the Professor, and

even the venerable gray hairs of more than eighty years did not protect the lecturer. — A convalescent home for the patients of the Royal Infirmary, Glasgow, is about being established. — Dr. Brady, M.P. for Leitrim, Ireland, who died recently, has left a fortune of £1,000,000. — A hospital surgeon, writing to the 'Times,' relates the following case, which is only a sample of many others:—"A young officer, scarcely of age, was entrapped into giving bills to the amount of 4,000*l.* to an advertising quack. By my recommendation he went to a lawyer, who succeeded in reducing the sum to 200*l.* A second victim gave in hard cash 1,000*l.* for a single prescription; a third, after paying 900*l.* for the same determined to suspend the remaining 100*l.* until he had consulted me to ascertain his cure. The most incredible part of the whole is, that there was nothing at all the matter with either of these patients except the mental excitement which these miscreants produced, an excitement which I have known in many instances to end in a lunatic asylum. I have often tried to persuade the sufferers to face the charge, but without success, the dread of publicity being so unconquerable." — At the last sitting of the Academy of Sciences, Paris, a paper was received from Dr. Blanchet on three curious cases of constitutional lethargic slumber. One of them was that of a lady twenty-four years of age, who, having slept for forty days at the age of eighteen, and fifty days at the age of twenty during her honeymoon, at length had a fit of sleep which lasted nearly a whole year, from Easter Sunday, 1862, to March, 1863. During this long period a false front-tooth had to be taken out in order to introduce milk and broth into her mouth. This was her only food; she remained motionless, insensible, and all her muscles were in a state of contraction. Her pulse was low, her breathing scarcely perceptible; there were no evacuations, no leanness; her complexion was florid and healthy. The other cases were exactly similar.

A novel action was lately brought in Paris by a surgical mechanician, against two medical officers. The latter, Drs. Goupil and Bernurts, have published a book on the diseases of women, and therein stated that a peculiar pessary, invented by M. Grandcollot, did not, as far as they had seen, answer the purpose. The latter thereupon brought the action, laying the damages for the injury sustained at £1,000, requesting, besides, an apology in thirty newspapers, and also a rectification to be inserted in the above-mentioned work. He, however, lost his cause; the verdict was for the defendants, and the plaintiff was saddled with the costs.

Erratum.—Page 278, line 22 from top, for "hot summer" read "hot hammer."

MORTALITY OF THE CITY OF MONTREAL IN NOVEMBER, 1864.

Compiled from the Cemetery Returns, by G. E. Fenwick, M.D.

Mount Royal Cemetery.

Disease.	Male.	Female.	Total.	Still-born.	Under 2 years.	From 2 to 10.	From 10 to 20.	From 20 to 30	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	Over 100 years.	Centre Ward.	West Ward.	East Ward.	St. Antoine.	St. Ann.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Not of Montreal.	Native Born.	Foreign.
Still-born	1	1	2	2																		1		1			2	
Senile Debility	1	1	2								1		1							1	1						1	1
Infantile Debility																												
Small Pox	2	1	3		1	1		1													2	1					2	1
Measles																												
Scarlet Fever	6	1	7			7															3		1	3			6	1
Fever		1	1							1													1				1	
Convulsions		1	1		1													1									1	
Inflammation of Brain	2	2	4		1	3														1	1	1		1			4	
Apoplexy	1	2	3							1	1		1								2		1					3
Paralysis		1	1									1											1					1
Croup	2	3	5			5															1		2			2	5	
Hooping Cough																												
Inflammation of lungs	3	1	4		1	1					1	1								1	1	2						4
Consumption	2	2	4						4													1	2		1			4
Disease of Heart	1		1							1										1								1
Diphtheria	1		1			1														1							1	
Inflam of Bowels	1		1								1											1						1
Diarrhœa																												
Disease Liver		1	1					1												1								1
Dropsy																												
Rheumatism	1		1						1														1				1	
Erysipelas																												
Cancer		1	1								1							1										1
Accidental	1		1							1															1		1	
Total	25	19	44	2	4	18	1	5	1	4	3	4	1	1			1	1	1	10	8	7	12		1	3	23	21

Roman Catholic Cemetery.

Disease.	Male.	Female.	Total.	Still-born.	Under 2 years.	From 2 to 10.	From 10 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50.	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	Over 100 years.	Centre Ward.	West Ward.	East Ward.	St. Antoine.	St. Ann.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Sœurs Grises.	Not of Montreal.	Native Born.	Foreign.
Still-born	9	1	10	10																3	3	1		1	1		1	10	
Senile Debility	3	6	9									1	5	3						1		2		2	1	1		8	1
Infant. Debility	49	33	82		82												2		1	4	5	2		2	5	44	5	89	2
Small Pox	5	7	12		3	8	1													1	1	12		2	2		2	11	1
Measles	5	6	11		3	7		1													5	3	2	4		1	8	3
Scarlet Fever	3	2	5			4	1															2					1	3	2
Fever	9	3	12		3	3	2	2	1													3	3				2	8	3
Inflam. Brain	1	2	3		1	2														1	1		1					1	2
Paralysis	1	1	2								1		1							1		1					2		
Hooping Cough	1	1	2			1																					1	1	
Croup	2	5	7			7														1		1			2		2	6	1
Inflam. Lungs	2	3	5			2				2		1								1			1	3			3	2
Consumption	9	15	24				4	3	8	6	2	1								3	7	2	6	4	1	1	14	10
Disease Heart	1	2	3					1		1		1										1	1	1			1	2
Asthma		2	2								1	1									1	1					1	1
Dentition	10	10	20		20												1			1	1		5	5	2	5	16	4
Inflam. Bowels	1	4	5			1			1			2	1							2	1			1		1	1	4
Disease Liver	1		1								1											1					1	
Dropsy	2		2						1			1										2						2
Rheumatism	1		1									1									1						1	
Erysipelas		1	1						1										1								1	1
Abscess	1	1	2		1			1												1						1	2	
Cancer		1	1									1											1				1	
Childbirth		1	1						1													1						1
Accidental	1	1	2			1	1													1	1						2	
Total	116	107	223	10	113	36	9	8	13	9	5	10	7	3			3		2	20	27	20	30	36	18	45	22	181	42

MORTALITY OF THE CITY OF MONTREAL IN DECEMBER, 1864.

Compiled from the Cemetery Returns, by G. E. Fenwick, M.D.

Mount Royal Cemetery.

Disease.	Male.	Female.	Total.	Still-born	Under 2 years.	2 to 10 years.	From 10 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50	From 50 to 60.	From 60 to 70.	From 70 to 80	From 80 to 90.	From 90 to 100.	Over 100 years.	Centre Ward.	West Ward.	East Ward.	St. Antoine.	St. Ann.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Not of Montreal	Native Born.	Foreign.
Still-born	3	5	8	8																						8		
Senile Debility	3	2	5										3	2					1	1					1	1	4	
Infantile Debility	1	4	5		4						1							1			1	1				1	4	
Small Pox	1	1	2		1	1															1	1				1	1	
Measles	1	1	2		1	1															1	1				1	3	1
Scarlet Fever	2	1	3		1	2																					1	
Fever	1		1			1																					2	3
Inflammation of Brain	4	1	5		1	3					1										2	2			1		3	1
Convulsions	1		1		1																1							
Apoplexy		3	3					1	2													2	1				3	
Paralysis	1	1	2								1										1		1				1	1
Disease spine		1	1				1													1							1	
Croup																												
Hooping Cough																												
Inflammation of Lungs	1	2	3		2				1										1	2	1	1				1	2	1
Consumption	3	6	9			2	4	2	1										1	2	2	1			2	6	3	
Disease of Heart	1	2	3					1		1		1					1		1							1	2	
Diphtheria		1	1			1																			1		1	
Inflam. of Bowels	1	2	3		1			1		1										1		1	1				2	1
Disease of Liver		1	1						1											1							1	
Dropsy																												
Rheumatism	1		1					1												1								1
Cancer	1	1	2			1			1														1			1	1	1
Child-birth		1	1				1													1							1	
Accidental	2		2			1													1	1								2
Total	30	31	64	8	13	8	5	8	7	7	2	1	3	2			2		4	15	13	12	5	3	2	8	43	21

Roman Catholic Cemetery.

Disease.	Male.	Female.	Total.	Still-born	Under 2 years.	2 to 10 years.	From 10 to 20.	From 20 to 30.	From 30 to 40.	From 40 to 50	From 50 to 60.	From 60 to 70.	From 70 to 80.	From 80 to 90.	From 90 to 100.	Over 100 years.	Centre Ward.	West Ward.	East Ward.	St. Antoine.	St. Ann.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Sœurs Grises.	Not of Montreal	Native Born.	Foreign.
Still-born	6	5	11	11															1								1	11
Senile Debility	3	7	10										3	5	1	1											9	1
Infant Debility	47	38	85		85															3	2	2	1	2	2		76	9
Small Pox	10	8	18			5	12	1													2	1	1			10	15	3
Measles	12	10	22		10	11		1												3	1	4	3	1		3	12	6
Scarlet Fever	2	9	11		5	6														1	2	4	1	1			5	6
Fever	2	5	7		1	1	3	2													2	1				2	5	2
Inflam. Brain	2	1	3			3													1		1	1	1				3	
Apoplexy	1	2	3					1	2								1						1				3	2
Paralysis	1	4	5						2			1	1	1									2	1		2	3	2
Croup	6	4	10		6	4														4		1					2	8
Inflamm. Lungs	1	2	3						1	1	1								1	5	4	6	4	3	1	1	20	6
Consumption	9	17	26				5	8	5	7	1						1	1			1	4					4	1
Disease Heart	3	2	5				1		2		2										2	1	1		1		1	
Diphtheria	1		1			1																				1	5	
Inflam. Bowels	4	1	5			1		1	1	1	1									2		1	1				6	2
Dentition	3	5	8		8														1	1	2			1	3		3	1
Disease Liver		1	1							1										1							3	3
Dropsy	1	5	6					1		1	1	2	1				1				1	2		1			2	
Rheumatism	2		2				1		1											1							2	
Erysipelas	1	1	2							1		1									2							1
Aneurism	1		1				1										1										2	1
Cancer	1	3	4						1		1	2								1		2	1				2	2
Childbirth		4	4				2	1	1												1	1	1		1		2	1
Accidental	3		3		1		1		1											1	1							
Total	122	134	256	11	121	39	12	17	16	13	8	5	6	6	1	1	4		3	24	32	35	25	16	26	36	25	206	50

ABSTRACT OF METEOROLOGICAL OBSERVATIONS,

Taken at the Montreal Observatory, Latitude 45° 31′ N. Longitude, 4h. 54m. 11s. W. of Greenwich. Height above the level of the Sea 182 feet. For the month of November 1864.

BY CHARLES SMALLWOOD, M.D., LL.D., D.C.L.

Day of Month.	Reading of the Barometer, corrected, and reduced to 32° F.			Reading of Thermometer.			Mean Tension of Vapor.	Mean Humidity of the Atmosphere.	General direction of Wind.	Horizontal movement in 24 hours in miles.	Mean extent of Clouds in 10ths.	Depth of Rain in inches.	Depth of Snow in inches.	Ozone in 10ths.	Weather, &c.
	Highest	Lowest.	Mean.	Max.	Min.	Mean									
	Inches.	Inches.	Inches.												
1	30.005	29.609	29.867	44.8	25.5	36.0	.205	.881	W	96.81	4.0	....	....	1 8	
2	.051	30.018	30.038	38.0	26.0	32.5	.178	.879	W	125.11	5.3	....	....	1.0	
3	29.890	29.834	29.856	50.1	21.2	36.3	.217	.871	W	69.91	0.6	....	....	1.6	
4	.412	28.668	.383	39.2	23.9	35.2	.198	.901	N E	153.14	10.0	1.260	....	3.0	Rain.
5	.611	29.114	.019	59.4	30.4	32.6	.184	.903	W	87.60	9.6	. ..	....	1.6	
6	.914	.841	.837	51.3	31.1	41.1	.247	.885	W	184.24	0.0	....	....	2.2	
7	.948	.714	.853	58.4	39.4	48.0	.311	.889	S W	99.76	4.6	Inapp	....	2.3	Rain.
8	30.004	.863	.948	51.2	34.7	46.2	.292	.887	W bys	97.47	7.6	Inapp	....	2.6	Rain.
9	29.594	.347	.480	56.4	48.4	52.9	.472	.908	W b y S	86.67	10.0	0.902	....	3 0	Rain.
10	.279	.080	.183	50.2	50.1	50.9	.364	.889	W b y S	217.44	8.0	0.210	....	2.6	Rain.
11	.449	.296	.362	43.0	35.7	39.9	.224	.858	W	116.89	6 6	....	....	2.0	
12	.547	.501	.520	43.4	29.7	38 9	.224	.895	W	179.70	3.3	....	....	1.3	
13	.674	.614	.631	40.9	29.4	35.3	.300	.899	N N E	179 40	6.6	....	....	1.3	
14	.994	.880	.931	51.8	23.0	36.5	.213	.890	N W	211 22	2.6	....	....	2.6	
15	.917	.771	.681	33.8	28 1	31.7	.177	.904	N E	110 00	10.0	....	....	3.0	
16	30.255	30 022	30.154	33.8	20.4	28.9	.150	.869	W	87.69	7.6	....	3.10	3.0	Snow.
17	.105	29.764	29.949	36.3	22.0	32.1	.179	.888	S E	46.27	9 6	....	....	2.3	
18	29.829	.764	.795	50.3	32.0	39.6	.236	.892	W	152.72	2.6	0.300	....	3.0	Rain.
19	.986	.916	.948	40.2	25.1	33.9	.191	.872	W	179.42	6.0	....	....	2.6	
20	.904	.709	.828	55.0	34.7	43.9	.289	.875	W	79.47	3.3	....	....	2.3	
21	.585	.377	.486	46.1	33.1	40.4	.244	.942	S b y W	124.71	10 0	0.182	....	3.0	Rain.
22	.411	.090	.247	43.2	31.2	36.4	.222	.921	W b y N	57.80	10.0	0.288	....	3.6	Rain.
23	.998	.447	.747	38.1	29.4	31.7	.189	.890	W	41.71	5.3	....	0.90	2.3	Snow,
24	30.267	30.228	30.248	31.4	9.8	23.8	.159	.865	W S W	71.46	7.6	....	...	2.0	
25	.300	.264	.285	35.5	30.4	33.2	.180	.871	W b y S	94.72	10.0	....	Inapp	3.0	Snow.
26	.097	29.946	.018	41.8	31.4	35.7	.202	.867	S E	24.21	8.0	Inapp	....	3.6	Rain.
27	29.863	.800	29.835	36.0	33.4	34.8	.189	.881	N E	111.42	10.0	0.246	.. ..	4.0	Rain.
28	.900	.504	.706	42.2	31.6	37.6	.221	.914	S E	22.19	10.0	Inapp	....	2.6	Rain.
29	.577	.397	.408	46.1	41.1	44.1	.281	.925	W S W	17.70	10.0	0.543	....	3.3	Rain.
30	.442	.414	.425	44.0	38.4	42.1	.255	.911	N E	13.49	10.0	0.600	....	3 3	Rain.

Remarks for the Month.

Barometer ... { Highest, the 25th day, 30.300 inches.
Lowest, the 4th day, 28.668 "
Monthly Mean, 29.720. "
Monthly Range, 1.632. "

Thermometer { Highest, the 7th day, 58°.4.
Lowest, the 24th day, 9°.8.
Monthly Mean, 38°.11.
Monthly Range, 48°.6.

Greatest intensity of the Sun's rays, 73°.1.
Lowest point of Terrestrial Radiation, 7°.4.
Mean of Humidity, .899.
Rain fell on 13 days, amounting to 2.360 inches.
Snow fell on 3 days, amounting to 4 inches.
Most prevalent wind, W.
Least prevalent wind, S. E.
Most windy day, the 10th day, mean miles per hour, 10.31.
Least windy day, the 30th day, mean miles per hour, 0.56.
Aurora Borealis visible on 2 nights.
Lunar Corona, visible on 1 night.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS,

Taken at the Montreal Observatory, Latitude 45° 31′ *N. Longitude*, 4*h* 54*m*. 11*s*. *W. of Greenwich. Height above the level of the Sea* 182 *feet. For the month of December* 1864.

BY CHARLES SMALLWOOD, M. D., LL. D., D. C. L.

Day of Month.	Reading of the Barometer, corrected, and reduced to 32° F.			Reading of Thermometer.			Mean Tension of Vapor.	Mean Humidity of the Atmosphere.	General direction of Wind.	Horizontal movement in 24 hours in miles.	Mean extent of Clouds in 10ths.	Depth of Rain in Inches.	Depth of Snow in Inches.	Ozone in 10ths.	Weather, &c.
	Highest	Lowest.	Mean.	Max.	Min.	Mean									
	Inches.	Inches.	Inches.												
1	30.000	29.562	29 812	49.7	34.7	41.1	.245	.882	W S W	104.40	6.0	0.060	....	2.0	Rain.
2	.134	.972	30.075	37.2	24.0	31.8	.174	.870	N E	84.26	6.6	....	0 70	2.6	Rain.
3	29.489	.304	29.885	44.5	35.2	40.5	.257	.900	N E	94.70	10.0	0.412	....	3.0	Rain.
4	.607	.451	.506	42.8	29.7	34.6	.195	.901	W	114.90	2.0	....	....	2.3	
5	.800	.617	.753	31.4	19.6	27 3	.152	.809	W	232.40	7.6	Inapp	....	3.0	Rain.
6	.774	.495	.593	40.2	30.4	35.8	.205	.899	N E	47.70	10.0	0.441	....	3.0	Rain.
7	.582	28.948	.247	38.4	35.1	37.5	.308	.885	W	47.10	10 0	0.211	....	2.6	Rain.
8	29.874	29.342	29.579	32.0	18.9	25.3	.141	.889	W	272.40	6.0	....	Inapp	3.3	Snow.
9	30.492	30.262	30.410	29.5	8.2	18.6	.106	.863	W	371.14	0.0	....	....	2 3	Lunar Halo.
10	.231	29.960	.072	22.4	18.0	31.8	.109	.848	N E	51 74	10.0	....	0.64	3.0	Snow.
11	29.747	.279	29.524	26.0	18.4	23.0	.129	.894	N E	114.14	8 6	....	1.30	3.3	Snow.
12	.752	28.964	.362	22.4	2.5	11.9	.083	.877	W	111.14	9.3	....	5.24	3.0	Snow.
13	30.142	29 799	30.011	9.0	-9.0	0.3	.045	.876	W by N	142.71	6 3	....	Inapp	3.0	Snow.
14	29.800	.364	29.670	20.5	10.6	13.9	.089	.864	N E	94 10	8.6	....	3.50	3.0	Snow.
15	30.101	30.024	30.061	17.0	-0.5	7.4	.065	.877	W	97.64	0.0	....	....	2.6	
16	29.994	29.987	29.990	22.1	9.5	17.1	.096	.895	N E	57.89	10.0	....	....	2.0	
17	.894	.797	.851	32.0	18.0	25.7	.144	.896	N E	47.70	6.6	....	....	2.6	
18	30.311	30.241	30.264	22.2	13.6	17.6	.141	.862	W	104.71	0.0	....	Inapp	3.0	Snow.
19	19.401	19.317	29.349	20.2	14.7	18.4	.103	.844	N E	74 44	3.3	....	3.14	3.0	Snow.
20	.797	.602	.711	16.8	8.1	12.5	.076	.853	W	87.64	0.0	....	....	2.0	
21	.416	.249	.311	13.4	9.8	11.6	.083	.885	N E	59.74	10.0	....	4.75	3.3	Snow.
22	29.304	29.304	29.511	16.0	-6.1	5.7	.058	.874	N E	117.11	4 0	....	1.20	3.0	Snow.
23	.847	.737	.795	-2.5	-14.9	-7.2	.031	.862	W by N	146.61	10 0	....	....	1.1	
24	.742	.644	.690	10.0	-4.6	4.02	.060	.911	N E	267.40	10.0	....	Inapp	2.0	Snow.
25	.861	.679	.795	36.6	24.0	31.0	.169	.885	W	133.10	8.0	....	....	2.0	
26	.671	.637	.650	40.2	33.0	34.4	.197	.904	W	71.11	6.6	....	Inapp	2.0	Snow.
27	.490	.379	.427	40.0	31.0	36 0	.192	.874	N E	79.10	10.0	Inapp	....	2.6	Rain.
28	.411	.407	.409	38.4	32.6	35.7	.199	.887	S W	49.90	8.6	0.197	....	3.0	Rain.
29	29.270	29.199	29.224	32.0	31.6	31.8	.184	.935	W	24.70	10.0	....	2.50	3.0	Snow.
30	.400	.279	.350	28.4	15.1	22.0	.126	.899	W	207.41	6.6	....	Inapp	2.0	Snow.
31	.817	.892	.787	20.2	8.6	13.9	.117	.887	W	74 60.	8.6	....	....	3.0	

Barometer.. { Highest the 1st day, 30.311 inches.
Lowest the 12th day, 28.964 "
Monthly Mean, 29.934 "
Monthly Range, 1.357 "

Thermometer { Highest the 1st day, 49°7.
Lowest the 23rd day, -14°9.
Monthly Mean, 22°.28.
Monthly Range, 64°.6.

Greatest intensity of the Sun's rays, 69.7.
Lowest point of Terrestrial radiation, -16°.1.
Mean of Humidity, °.880.
Rain fell on 7 days, amounting to 1.301 inches.
Snow fell on 15 days, amounting to 22.97 inches.
Most prevalent wind, W.
Least prevalent wind, S. W.
Most windy day the 9th day, mean miles per hour, 15.47.
Least windy day, the 29th day, mean miles per hour, 1.02.
Aurora Borealis visible on 1 night.
Lunar Halo visible on 1 night.