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THE
BRITISH AMERICAN JOURNAL.

ORIGINAL COMMUNICATIONS.

MEDICAL DEPARTMENT.

ART. XLVI—*On the identity of Cowpox and Smallpox.* By ANTHONY VON IFFLAND, M.D., M.R.C.S.Eng., &c., &c.

Some years since, (I believe in 1845) I submitted to the medical profession, through the "Journal of Medical Science" so ably conducted by you for many years, and other medical periodicals, my conviction, that the vaccine virus, in consequence of the many and various systems through which it had been transmitted for a long period of time, without any renewal from the cow, had in a great measure lost its protective power. Of late years I have had many opportunities of being, with you, also convinced, that it afforded only temporary security against the ravages of small-pox.

To remedy this evil, I had, with others, suggested the desirableness of fresh matter being taken from the cow, when practicable; but, as has already been observed, "it is one thing to speculate and advise upon the matter, and another practically to proceed with it." It has been generally admitted that the cow-pox is only a modification of small-pox by the nature of the animal in which it is generated, and although I have not gone so far as *personally* to inoculate a cow with the natural small-pox virus, I can bear testimony to the fact, that the small-pox matter will, if introduced into the cow's teat, produce at all times the same sore, or as it is now universally called, the vaccine pustule; there may, in some respects be dissimilarity, but they are the same; and that the cow-pox is small-pox passing through the constitution of the cow, and which, having lost its infectious quality, will retain its protective power in the human system, at least for a certain period of time there can be no doubt of. About six weeks since, we had in the hospital a large number of cases of Small-pox among the Germans and Poles, with many of a confluent character, but in consequence of the salubrity of the island and the excellent ventilation which the locality of the Small-Pox Hospital affords, nearly all recovered, (the four deaths having occurred among young children), while the patients, from time to time, were allowed, at an early convalescence to walk about and sit within the prescribed limits of the hospital. A few of these

patients having, however, wandered as far as the grounds in which the cows sometimes grazed, my cow, being one of the number, was milked by some of the patients whose fingers were still covered with small-pox crust, and as her teats had already suffered from the stings of musquitoes or small black flies, the small-pox virus was readily communicated, and in a few days produced all the characteristic pustules. The girl who milked her had neither been vaccinated, nor had had the natural small-pox, and in a few days her hands were covered with pustules bearing great similarity to those of natural small-pox, but otherwise with no constitutional disturbance. The teats of other cows on the island were also similarly affected, My servant girl, although much exposed to contract small-pox from her frequent intercourse with the patients, in distributing comforts to the children in hospital. had up to this period, (15th August) borne perfect immunity from any attack. The others, who also milked the cows with pustules on their teats, had merely small sores on their hands; they were very young girls, and had been vaccinated at a very early age.

Among the great number of patients admitted into hospital with small-pox, nearly one third had been vaccinated at a very early age, and bore the same depressed cicatrix on their arms as is usually seen on those who have been regularly vaccinated; but whether they had had the constitutional fever during the progress of vaccination, or whether the pustule was of a spurious character, (which bears the same cicatrix as the genuine) it was impossible to learn. Among this number, however, it may be remarked, that with few exceptions, the disease exhibited itself in a very mild form, having but few distinct pustules, and the constitutional disturbance so partial as scarcely to necessitate their confinement to bed.

Grosse Isle, 20th Aug, 1861.

ART. XLVII.—*The Medical Statistics of the City of Montreal.* By GEORGE E. FENWICK, M. D., Physician to the Montreal Dispensary and Infirmary for Diseases of Women and Children.

In publishing the accompanying tables compiled from the cemetery returns, my object is to draw attention to the great need of an uniform system of registration, and to endeavour to prove that however faulty our drainage, however overcrowded in some localities are our buildings, yet the mortality of Montreal is not quite so high as has been represented. That the death-rate is high, when compared with some others cities in Canada is true, but that there has been any increase in that rate during the last ten years, is doubtful. There being but two burial places for the city and environs, an opportunity of arriving with positive certainty at the number of deaths within the city limits is by no means an easy task. A critical examination of the tables proves that a large number of the deaths recorded are from surrounding country parishes. In the Mount Royal Cemetery it is well known that there are interred annually a large number who do not belong to the city proper. The same may be said of the Roman Catholic Cemetery, the number of burials from the villages in the immediate neighborhood of the city is quite an item; these will be found in a separate column under the heading

"From the Country." In estimating the rate per thousand of deaths in the city these will have to be discarded.

Infant Mortality.—By reference to these tables it will be found that the mortality among children is particularly high. They are chiefly among the children of the poor, in numerous instances the fatal result may be attributable to improper care, an indifference on the part of parents to seek medical aid, if not the inability (through poverty) of obtaining it.

By this I would not have it inferred that medical relief would not be given, and given cheerfully if sought, as the marked benevolence of the medical staff of our city, as of all the world over, is proverbial. But parents too often, probably through delicacy or a disinclination of incurring obligations which, through, straightened circumstances, they feel they cannot discharge, are induced to resort to a host of domestic remedies, and we are called in when our services are of no avail.

Of the 3173 deaths recorded during the past year 2182 are of children under 8 years of age. The cause of this sacrifice of infant life is not alone to be attributed to neglect on the part of their guardians; it is readily traceable to improper food, badly constructed habitations, over-crowded courts, back alleys, without drainage or ventilation, surrounded by filth, foul air, and deadly emanations, is it a wonder so large a mortality has to be chronicled. The remedy for all this is a proper system of drainage and a thorough cleansing of these purlieus of disease; and as a means to relieve the present necessity, the establishment of an hospital or infirmary for the children of the destitute is actually indispensable. A hospital with the above objects exists, but in name; I trust however that before many months have passed, a flourishing institution for the relief of the children of the poor, will be in active operation. If this benevolent charity is properly carried out it will afford the means at least of removing sick children of the destitute, from these nurseries, so to speak, of disease and death, to a place of refuge, where they can have wholesome air, proper food, and medical relief.

The necessity of a general system of statistical registration should occupy the earnest attention of our city authorities.

Through the kindness of Mr. J. Desturnell I am enabled to quote from the laws and ordinances relative to the preservation of the public health in the City of New York, under the heading, "Article second," page 35, section 10, we find:

"It shall be the duty of each and every physician in the City of New York, to report to the City Inspector, when required by the Board of Health, the death of any of his patients who shall have died of disease within 24 hours thereafter and to state in such report the specific name and type of such disease."

A little further on we find that:

"Every practising physician who shall refuse or neglect to perform the duties enjoined on him by the 10th section of this article shall be considered guilty of a misdemeanor and shall also forfeit for each offence the sum of \$250, to be sued for and recovered by the Board of Health."

A little further on we find at page 135, section 10:

"No sexton or other person having charge of any place of interment in the City of New York, shall, under a penalty of two hundred and fifty dollars, inter or permit to

"be interred, any dead body therein, without having first received a certificate, stating "the name, apparent age, birth place, date and place of death, and the disease of which "he or she shall have died, signed by the attending physician; or in case no physician "shall have attended such deceased person, then by some (member) of the family of the "deceased; or in case of an inquest having been held, by the coroner; which certificate "shall be deposited with the return in the office of the City Inspector."

I believe the Bye-Laws of our Corporation have a similar provision as the above. It is, however, not carried out. No attempt has been made to collect reliable information on this important subject, except, during the existence of epidemic cholera. As at present collected the returns are useless, as touching the causes of death, inasmuch as the information is obtained alone from the friends of the deceased. I think there can be little doubt, but, that the profession generally would cheerfully comply with a sanatory regulation which would ultimately tend to so much good; however, if not, the Corporation have the power of legislation, and enforcing, under a heavy penalty, compliance on their part. In England a most accurate system of registration has been carried out for many years, and correct and reliable returns are published annually. These have been of the greatest use to sanatory reformers, as they are enabled thereby to advance facts borne out by the average of a long series of years. Is it too much to ask a similar enactment for the United Canadas? Let us in our infancy as a country, profit by the experience of our respected and venerable parent. But in the absence of a general law, it becomes the duty of our city authorities to insist on a fair, and reliable system of registration of these matters, and follow in the footsteps of all the first cities in the civilized world.

In the subjoined tables the returns from the Protestant and Roman Catholic Cemeteries are given separately. This has been done to render them more complete when compared with the return of the Census Commission of our city.

The months of greatest mortality among the Protestants were July and August. Among Catholics, June and July; there were fewest deaths among Protestants in November and December; among Catholics in February and November.

A special column has been devoted to the Sœurs Grises, or Grey Nun Foundling Hospital. During the year there were 454 deaths of infants, returned from that institution. It can hardly be supposed that Montreal offers so large a number of illegitimate births annually. I will refer again to this subject in the course of this paper.

Small Pox.—Deaths from this cause occurred in 154 cases. Of these 23 were Protestants; 131 Catholics: of the former 18 were under 8 years of age, the greatest mortality occurring in the St. Ann's and St. Mary's Wards. Of the latter 121 were under 8 years, the largest number of deaths being in the St. Antoine, St. James's and St. Mary's Wards.

We may presume that the rate of mortality under this heading has not been great.

In the Montreal General Hospital, 62 cases of Small Pox are reported for the year 1860, amongst whom were two deaths. If we take the rate at 4 per cent. we would have 3850 cases of the disease—the largest proportion being among infants or young children. I speak from personal observation, as, for every

case I saw of the disease in an adult, there were 20 among children. However here is evidence, if evidence were needed, to prove the necessity of effectually carrying out the Vaccination Act recently passed by the legislature. It is much to be regretted that this act is confined in its operation to the larger cities in Canada. I am at a loss to conceive why the country parishes and smaller towns should be overlooked. Small Pox is well known to prevail occasionally to an alarming extent in whole districts, more especially among French Canadians, as may be evidenced by the fact that in some parishes almost the entire population present the deep pits and scars which remain after a severe attack of this malady. Referring again to these returns it will be found that the great proportion of these deaths are among the children of the poor, and from the locality of the Roman Catholics we may infer the largest proportion to have been French Canadians, as nearly three-fourths of the population of those wards are of French extraction. The necessity of early vaccination cannot be too urgently enforced, and for the poorer class there are two hospitals and the Montreal Dispensary, public institutions, with constant supplies of fresh vaccine lymph, where their children will be vaccinated gratis, if they will be at the trouble of taking them there.

Abundant evidence can be brought in proof of the beneficial effects of vaccination, the most striking facts are given by Dr. Casper, of Berlin.

During the ten years from 1782 to 1791, 4453 deaths are recorded as having occurred from small pox in the city of Berlin. In the year 1800 vaccination was introduced and practised extensively. In the ten years from 1802 to 1811 there were 2955 deaths from small pox, and in the 11 succeeding years the cases of deaths from that disease had diminished to 555. It had been observed that an epidemic of small pox occurred about every third year. In 1803 its recurrence was first checked by the prevalence of vaccination. A popular notion that other maladies peculiar to infant life became more fatal after the introduction of vaccination was combatted by Casper. He found on comparing the two periods from 1786 to 1789, and 1819 to 1822, that in the former period 39 out of 100 children died of other maladies, whereas during the latter the death rate was reduced to 34 out of every 100. On the same point we may notice the official return of deaths in Sweden :

In 1779	small pox	destroyed	15,000	persons.
1784	"	"	12,000	"
1800	"	"	12,800	"
1801	"	"	6,000	"
1822	"	"	11	"
1823	"	"	37	"

Here, also, as in other continental countries, vaccination was introduced about the year 1800.

It may not be deemed irrelevant to mention re-vaccination. Much difference of opinion obtains on this subject. The great Jenner was of opinion that re-vaccination was necessary, that the protective influence of vaccine gradually diminished as the patient advanced in age. Without entering on this subject at all, which is engaging the attention of eminent observers at the present day, I will merely

say that a trifling scratch on the arm, and a few days of discomfort will amply repay an individual if it preserves him from an attack of so loathsome and dangerous a disease as Small Pox.

Measles.—This disease proved fatal in 32 cases. All were children under 8 years of age; of these 7 were Protestants, and 25 Roman Catholics. The St. Antoine, St. Mary, and St. James' wards having the largest number of deaths.

Scarlet Fever.—Sixty-five cases of death are recorded from this cause; 34 were Protestants, and 31 Roman Catholics. This fact will not fail to strike the reader. I must refer him, however, to the next disease in the column, Fever, under which heading I have included all other fevers, however named. It will be observed that 82 cases are recorded as occurring amongst Roman Catholics, 53 of whom are children. Again, under the heading Dropsy, we have 11 cases among Roman Catholics, all children. As fever on the one hand is not by any means a common disease of early childhood, and dropsy is seldom, if ever seen, except as a sequelæ, we may reasonably infer that the majority, if not the whole of these cases, were either scarlet fever, or in the latter instance the sequelæ of that malady. The largest proportion of deaths from scarlet fever, occurred in the St. Antoine and St. Ann's wards.

Fever.—Under this heading if we subtract the 53 deaths which are recorded as having occurred among children, there will remain a total of 37. The largest proportion of deaths being in the St. Antoine, St. Ann's, and St. James' wards. I have entered thus minutely into the details of the above class of diseases as shewing a bearing on the unhealthy localities of our city.

All who have made this subject one of ordinary observation, will allow that the line from Mignonne Street to the foot of Cote à Barron, and from St. Lawrence Main Street east, is exceedingly unhealthy from the existence of a continuous swamp, which in summer pours forth its noxious emanations with deadly effect on the inhabitants of that district. The same may be said of the St. Antoine ward, between St. Antoine and Bonaventure Streets, and across in an open lumber yard in the latter street, may be observed an open drain, which after heavy rains is swelled into the proportions of a small river. This drain is one terminal extremity of the Craig Street tunnel, which carries off more than half the sewerage of the city.

Again, another source of the high rate of mortality in the St. Ann's ward, may be traced in the open drain which runs across McCord Street, beneath William and down through the college property, to empty its waters into the St. Lawrence, somewhere in the neighbourhood of the Custom House. But this is not alone the source in the St. Ann's and St. Mary's wards; there is an absence of efficient drainage in both these wards; the upper end of Griffintown lies very low, and the passer-by will notice in the spring, after the melting of the winter snow, vacant building lots, some of considerable extent, lying beneath water. These, as the heat of summer advances, become covered with vegetable mould, and ultimately dry up. If the season is wet they remain more or less covered with water the entire summer. The same may be said of the lower part of the St. Mary's ward, though not to so great a degree.

Montreal, 70. Craig Street.

(To be continued.)

REVIEW DEPARTMENT.

ART. XLVIII.—*A treatise on Fever, or selections from a course of Lectures on Fever.* By ROBERT D. LYONS, K.C.C., M.B.T.C.D., Professor of Practical Medicine and Pathology, &c. Philadelphia: Blanchard and Lea; Montreal: B. Dawson & Son, 1861.

The author of this treatise not only received his professional education in Ireland where the common forms of continued fever have long prevailed both sporadically and epidemically, but also had an opportunity of investigating their pathology and pathological anatomy minutely and extensively in his capacity of Pathologist-in-chief to the British army in the Crimea. From such a man, no mere compilation would be tolerable, and it is but fair to acknowledge at once that his treatise contains not only his confirmation or denial of previous opinions upon many topics, but numerous original observations, the results of his own labours and the proofs of his ability and earnestness in the cause of science.

The first chapter embodies some "general observations" upon fever, amongst which Prof. Virchow's late opinions upon the essence of fever are glanced at and approved of by the author. Galen's definition of fever—"calor præter naturam"—is admitted to constitute the one essential and pathognomonic symptom of fever; and to be present and appreciable by the thermometer even during the rigors that precede the hot skin; and it is contended that while frequency of pulse, thirst, scanty urine, &c. are frequently absent in fever, præternatural heat never is. The source of the elevation of temperature in fever, it is alleged by Virchow, is the increased consumption of tissue over that average normal quantity whose metamorphosis maintains the physiological temperature of the body. Although our author adopts this opinion of Prof. Virchow, the German Pathologist, we are surprised that he makes no allusion to the facts adduced by Dr. Parkes in support of it. Why is this? The eminent pathologist just named has shown that in fever the *excreta* are more abundant than in health, the amount of food taken being the same in both; that the temperature and the amount of the excretions are closely related to each other; and that the patient's loss of weight is in all cases proportionate to the amount of the excretions and to the temperature; a series of facts establishing the correctness of Prof. Virchow's thesis. The almost fatal objection to this view, viz., that in some fevers the excreta are *lessened* not increased, has been ably met by Dr. Parkes, who has shown that in such cases the products of metamorphosis are not diminished, but instead of being *eliminated* as excreta, are retained. And further he has rendered it probable, not to say demonstrated, that this retention in the system of the products of the increased metamorphosis of tissue is a common cause of the secondary inflammations that arise in fever; and to him belongs the merit of at last affording an explanation of the nature of *crisis*, and so-called *critical* evacuations—these being nothing more than sudden eliminations from the system of retained excretions through the skin, or kidneys, or bowels, with coincident improvement in the other symptoms. No allusion to these important results of Dr. Parkes' investigations is made by our author. His name is not even mentioned in connection with the subject under discussion.

In Chap. II. on the "general pathology of fever," Virchow's and Parkes' opinion that the increased consumption of organic material which evolves the augmented temperature in fever, has its immediate cause in alterations of the nervous system, is accepted. Physiologists admit that the nervous system regulates the metamorphosis of tissue and the production of heat; and Virchow holds that it exerts a moderating power over the waste of the tissues, and that in fever this power is restrained, paralysed, and in the same proportion the waste is increased and the temperature of the body augmented; and thus the *starting point* of fever is attained. This view derives much support, amongst other things, from the results of division of the sympathetic nerve in the neck or of the vagus, which brings about increased temperature, acceleration of pulse and other febrile phenomena; from the characters of many of the phenomena of fever, such as the early prostration, exhaustion, and apathy; from the rigors; from the periodicity of many of the symptoms, etc., and from the influence of bark on periodic fevers: but we do not think these arguments establish the opinion of Virchow that the exciting cause of fever, having entered the blood, exerts its first influence on the moderating nervous centres. Did our space permit, many arguments might be adduced to show that the *blood* suffers *first* and that it *participates* largely with the nervous system in the determination of the phenomena of fever; that in fact the starting point of *fever* is the entrance into or generation in the blood of some morbid agent. By the way, we conceive that our author has misapprehended Virchow's meaning when he attributes to him the idea that "the fever poison first invades the animal system through the channel of the nerves" (p. 40.) That pathologist admits that the fever making cause enters the blood, although he holds that it exerts its first influence on the nervous system.

Chapter III gives the following classification of fevers, which, though not free from grave scientific objections, may be convenient for the memory. 1. *Primary Fevers*, comprising the several forms of continued, intermittent, and remittent fever: 2. *Irritative Fevers*, comprising gastric, gastro-intestinal, remittent, and hectic fever; and 3. *Eruptive Fevers*, comprising small-pox, measles, &c.

Chapters IV to VIII inclusive are devoted to a consideration of the several forms of continued fever, and as these are of most interest and importance to Canadians, we will confine our remarks to the topics they may suggest, and pass by for the present, the subject of yellow fever, which has received a large share of the author's attention, and the personal study of which he made the object of a special visit to Portugal during an epidemic which prevailed there. No other forms of fever are discussed by our author.

Continued fever may be divided according to Dr. Lyons into—

Synocha or Inflammatory Fever.

Synochus or Mixed or Nervous Fever.

Typhus or Adynamic Fever.

Typhoid or Enteric Fever.

The Synocha of this writer is not the mere inflammatory fever of Cullen, nor alone relapsing fever as Christison considered it, but it includes these as varieties together with the "seven day" fever or "febricula" of Jenner, and those fevers which though running on to 14 or 21 days are unattended by the prostration of

typhus, the enteric lesions of typhoid or the cutaneous eruptions of either, and which are now often styled "simple continued fever." While giving *Synocha* this "large and liberal interpretation," our author contends for the occasional occurrence in the present day of the true *Synocha* of Cullen in opposition to those who doubt its existence altogether. He admits, however, that *Synochal* types of fever appear to have certainly become less frequent in Great Britain of late years than formerly if we accept the accounts given us by former writers; and in this connexion he propounds the notion, "that the sthenic or *synochal* types of fever are in the present day, and perhaps always have been, most remarkably developed amongst the graminivorous and herbivorous races of men, while the putrid or typhus types of febrile action more readily develop themselves in the races amongst which animal food constitutes a large part of their ordinary aliment." (p. 87.) He also entertains an idea we have met with elsewhere, that the *characters* of fever are influenced by the general constitution of races, i. e. that different types of fever prevail in different races.

A short account is given of relapsing fever which the author admits to be of frequent occurrence in Ireland, but the name of Jenner is not even mentioned in connexion with it, although the lectures were originally addressed to students, and that pathologist was one of the first to demonstrate the distinctions existing between relapsing and other forms of fever. During convalescence from relapsing fever Drs. Heslop and Lyons have noticed a "soft systolic murmur propagated up the aorta, heard loudest in the recumbent position, in most instances becoming all but imperceptible when the patient assumed the erect posture, finally disappearing as convalescence progressed, and manifestly not of organic nature." (p. 91). An interesting circumstance which will no doubt be adduced as antagonistic to the non-identity view of the specific nature of relapsing, typhus, and typhoid fevers, was noted by the author in the Crimea. A patient would present the well-marked symptoms of relapsing fever, with its decided temporary convalescence, but the type of fever would change in the relapse, so that it would assume the characters of typhus or typhoid fever? Dr. Bnenett mentions a somewhat similar case.* It may be that in such cases two distinct poisons, the poison of relapsing and the poison of typhus or typhoid fever co-existed as has been suggested by Dr. Murchison.

Our author does not venture upon any elaborate discussion of the very interesting and after all still moot question, the identity or non-identity of typhus and typhoid fevers, but the tendency of his observations and descriptions is very much towards the side of non-identity. He thinks it "not improbable" that typhus and typhoid fevers recognise a different exciting cause; he affirms that their natural history differs "in many essential respects; and he recognizes a practical clinical difference in the course, duration, symptoms, and secondary lesions of the two morbid processes." On the subject of the lesions of the alimentary canal in typhus, some valuable information, the results of his own investigation, is given, which we would like to transcribe, but cannot for want of space. Suffice it to say that he admits with Stokes the greater preponderance of lesions of the intestines in some epidemics of pure typhus than in others. These lesions are

* Clinical Lectures, 3rd Edition, p. 907.

mainly, various degrees of vascular turgescence of the mucous membrane of the small intestines, and now and then in a few isolated cases, three or four small irregular superficial ulcerations engaging the mucous membrane only; and he states it as his conviction "that any true follicular lesion of the intestine is as rare in typhus fever, as it is common in typhoid."

We confess to a feeling, somewhat akin to shame, when we reflect upon the various and opposed representations of what are mere matters of correct observation that emanate from men who assume the responsibility of publishing their opinions. Notwithstanding the labours of Bretonneau, Louis, Chomel, Bright, Armstrong, Gerhard, A. P. Stewart, Jenner, and a host of others, pathologists are not yet in accord respecting the condition of the intestines in typhus fever. Thus in direct contradiction of the statement of our author above quoted, we find the late Dr. Perry of Glasgow, in summing up the result of three hundred necroscopic examinations, affirming that dothion-enteritis or enlargement of the mucous follicles of the smaller intestines and enlargement and ulceration of the aggregated glands of the lower third of the ileum, occur in combination with contagious typhus and are to be met with in about *one in six* who die from *typhus*. Dr. Stokes, too, alleges that he has occasionally found follicular ulcerations of the intestine in cases of the "best marked maculated typhus." On the other hand, Dr. Anderson, in his little monograph on fever, just published, speaks thus positively; "In pure typhus *I know* (the italics are his) that ulceration of the bowels does not occur."* A similar diversity of statement exists touching the cutaneous eruptions of typhus and enteric fever. Our author describes very fully the "maculæ or petechiæ" of typhus and the lenticular rose spots of enteric fever; and with Jenner, Anderson, and others, appears to regard them as severally distinctive of those fevers; but Dr. H. Kennedy, of Dublin, one of the first British writers to describe the peculiarities of typhoid fever, has quite lately maintained that petechiæ may exist in typhoid fever, and bright lenticular spots without this fever; and still later, Dr. Joseph Bell, of Glasgow, asserts that he has seen "a patient labouring under a well-marked attack of typhoid, after a severe epistaxis, have the rose-coloured elevated spots converted into dark-coloured non-elevated maculæ, at the same time a large additional number making their appearance, so that in the course of a few hours a case of undoubted typhoid eruption became converted into an unmistakeable one of typhus." We should like to be assured that both observers were aware that the maculæ of typhus in their first stage resemble very closely indeed the lenticular spots of typhoid fever, but that in the third stage according to Dr. Jenner, they become dark purple in their centre and flat, and may be changed into true petechiæ. It may be after all that Dr. Bell's cases were cases of typhus instead of typhoid!

Our author's account of the symptoms of typhus is full enough, more especially when dealing with the secondary lesions incidental to the disease: we would especially commend to the student his observations upon the phenomena presented by the brain and circulating organs; he will there find, amongst other things, what a student of Stokes has to say about the heart in fever. The same may be said of his symptomatology of typhoid, or as it has been last styled

pythogenic fever. He has established a very valuable distinction amongst the examples of this fever, viz., those in which the symptoms of intestinal disorder progress *pari passu* with the primary fever, and these are the most frequent, and those in which the entire symptoms do not declare themselves until after the primary fever has run its course of two, three or four weeks and a true convalescence appears to have been established but proves delusive. The latter cases are fortunately the least frequent, as they are certainly the most serious, the intestinal symptoms, not only assuming a marked severity but often issuing fatally. The author dwells upon two symptoms as indicative of the existence of morbid action in the abdominal viscera in typhoid fever; one, an elevation of temperature in the abdominal parieties, sensible to the thermometer as well as the hand, and ranging above that of other parts for days in succession; the other an inordinate action of the abdominal aorta, or the iliac arteries, or both, with but moderate force and volume of the heart and radial arteries. These symptoms may be unaccompanied by pain, tenderness, or uneasiness of the abdomen, yet by themselves indicate the propriety of at once attempting to combat the intestinal lesion they represent. The intestinal lesions of typhoid fever are described with much minuteness by Dr. Lyons, and although his description of them agrees in almost all important particulars with Rokitansky's, it is even more full and proves the author to be an accomplished and painstaking morbid anatomist. The reader is not to infer, as he may readily do, from the author's way of putting it, that Rokitansky has not described the processes of sloughing and cicatrization that occur in the glands of Peyer in this fever, he has done so, though not as distinct *stages* of the morbid process. To Dr. Lyons, however, belongs the merit, if we mistake not, of first describing the slow atrophic process that now and then invades the intestinal mucous membrane, especially the tubes of Lieberkühn, in protracted cases of enteric fever, a process strictly similar to that announced in 1854 by Dr. Handfield Jones, as of frequent occurrence in the stomach. Unlike the great German pathologist, the Dublin professor has found the heart "flabby and soft, and its texture friable" in typhoid fever, "but never the same extent of degeneration and of the fishy condition that obtains in extreme cases of typhus." The discussion of the intestinal lesion met with in the secondary fever of cholera, and known as "cholera typhoid," may seem out of place in a work on fever, but this *contre-place* may be excused, not only because the author gives the result of his own observations and researches on this interesting subject, but because of the important bearing of cholera typhoid upon the pathology of typhoid fever; the constitutional symptoms and the intestinal lesion being very much alike in both, and the pyrexia of both bearing intimate relations to, if they are not positively dependent upon the enteric lesion. Chapter viii contains a notice of typhoid fever as observed by the author in the Crimea, with a summary of the history of the cases and of their chief post-mortem appearances.

This review has already attained proportions that prohibit any adequate notice of the treatment of fever recommended by Dr. Lyons. His remarks upon the measures suitable to combat the cerebral symptoms of typhus, upon the employment of tartar emetic and opium, and the administration of wine and stimulants in that disease, and upon the general management of the patient are worthy of

attentive study. He attaches great value to the use of turpentine in the advanced stages of the bronchitis and pneumonia of typhus. He regards wine and other spirituous stimulants of doubtful propriety in typhoid fever, approves of quinine in all stages of the latter fever, and in the former, "when there is no secondary complication and when no positive indication for specific treatment exists;" no very positive opinion is expressed as to the potency of emetics given in the early stage of fever, although a very careful observer, Dr. Brinton, has quite recently asserted their power, in some cases, to cut short typhoid fever, and in many others to reduce the fever to something which, though it "can't be cured, may be endured."

We have said enough we think to convince the reader that Dr. Lyons' work on fever is well deserving of a careful perusal, and contains the results of the personal experience of a capable and industrious student. There are grave faults in the order and arrangement of the author's observations, as though many of them were made at long intervals, and then put together without being recast, as also some important omissions witness the entire subject of the *etiology* of fever, but these are not to be mentioned in view of the general merits of the work. The careful personal investigation of a few points in the pathology of a disease, excuse, in our opinion, the omission of other points which may not have received the author's confirmation.

ART. XLIX.—*A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine.* By JOHN C. DALTON, Jr., M. D., formerly Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, &c. 2nd edition, revised and enlarged, with two hundred and seventy-one illustrations. Philadelphia: Blanchard & Lea. Montreal: Dawson & Sons. 1861, royal 8vo., pp. 690.

The demand for this valuable work has now exhausted one edition, and nothing more clearly demonstrates the estimation in which it is held by the profession than this fact. With very few exceptions indeed, the volume before us may be viewed as containing a condensation of the latest views of physiologists generally, on the important subjects comprised within this branch of medical knowledge, written in a most flowing style, and so utterly devoid of the dryness which usually attaches to works of this nature, that there is no wonder that it has become such a favourite.

In several essential respects, this edition differs materially from its predecessor. Thus there is devoted an entire chapter to the consideration of the *special senses*, which were only partially alluded to in the first edition; a re-arrangement of the chapter on the *cranial nerves*, with the introduction of the latest views and facts in reference to their physiology, has been made; an account of some original experiments with regard to the *functions of the cerebellum* has been rendered, with the conclusions to which they tend; certain considerations in regard to the properties of *sensation and motion*, have been introduced;

and lastly, there has been added a new chapter "on imbibition and exhalation, and the functions of the lymphatic system, including the study of endosmose and exosmose, and their mode of action in the animal frame; the experiments of Dutrochet, Chevrueil, Gosselin, Matteucci and others, on this subject, the constitution and circulation of the lymph and chyle, and finally a quantitative estimate of the entire processes of exudation and re-absorption, as taking place in the human body."

Additions have also been made, in various parts, to the chapters on secretion, excretion, the circulation, and the functions of the digestive apparatus, and twenty-two new and original illustrations have been introduced.

After a most careful perusal of the work, and this is our excuse for the delay in noticing it, although there exist a few points of unimportant character, to which exception might be taken, on the whole, however, we cannot but consider it one of the best exponents of this branch of medical science in our language, beautifully, nay, enticingly written, and giving expression to the very latest views.

We cannot but most cordially recommend this volume to medical men, and students of medicine. Its style is so different from that in which works of this character are usually couched, as to render it peculiarly attractive, so much so, in fact, that on repeated occasions, when fatigued by professional duty, we have taken it up to beguile the passing moment, pleasure and profit, in its perusal, going hand in hand. It ought to be on the shelf of every physician, because we feel assured that he could take up on such an occasion, no more interesting work, whether to refresh his memory, or to put him in possession of the latest knowledge on the various subjects.

The work, it is almost needless to say, comes out of the establishment (we were almost going to call it an "*atelier*,") of Messrs. Blanchard & Lea, in their highest style of art, beautifully printed and bound, with the engravings well designed and executed, the work a credit to both author and publisher.

ART. L.—*The Physician's Visiting List, Diary, and Book of Engagements for 1862.* Philadelphia: Lindsay & Blakiston. Montreal: Dawson & Sons.

We are happy to perceive that the enterprising firm of Lindsay & Blakiston are thus early in the field, and attending to the necessities of the profession during the forthcoming year. If we are not mistaken, this firm is the first that suggested this decided improvement upon the old routine of the practising physician. From the beginning until the present period, we can testify to the immense saving in time by the adoption of the plan indicated in these little pocket books, and we know that this is the idea universally entertained of their value. They can be obtained for the daily treatment of from 25 to 100 patients, the price, as a matter of course, varying with the required lines for any number of patients over 25, and the style in which the work is got up. We cordially commend them to our co-labourers. The price of one for 25 patients or entries, is \$1.15.

PERISCOPIC DEPARTMENT

MIDWIFERY.

A DYNAMOMETRICAL ADAPTATION TO THE FORCEPS.

By Dr. KRISTELLER. (*Monatsschr. f. Geburtsk.*)

Dr. Kristeller has submitted to the Berlin Obstetrical Society a contrivance by means of which the exact degree of extractile force employed in using the forceps may be measured. He observes, that the obstetrist, in seeking to describe the extent of the obstacle to delivery, is compelled to draw upon his imagination, and to use vague terms, as "easy, feeble, moderate, difficult, &c." For these expressions his instruments enables us to substitute the figures of a scale. His instrument is somewhat complicated, and not easy to describe without the help of drawings. The dynamometrical apparatus is adapted to the handles. Each handle consists of two parts, one moveable, and the other fixed. The fixed part is a strong steel-plate, which forms the continuation of the fenestra. The moveable part is a half-cylinder of brass, which is so adapted by its plane surface to the steel-plate that it can ride freely up and down, but in no other direction. Above, the brass half-cylinder is closed by a projection forming a notch in which the fingers of the operator are hooked for power of traction; below, the cylinder ends in the ordinary dilation for the hand to rest upon. Within the half cylinder lies a strong steel spiral spring, which presses above against the prominences which support the operator's fingers, and to which the chief part of the extractile force is applied, and below is fixed immoveably to a projection from the steel-plate. When the operator pulls with his right hand upon the upper prominence, and with his left upon the shafts of the handles, he draws the moveable half-cylinders down, compressing the spiral springs, the elasticity of which serves to measure the strength employed. This is indicated by a graduated index adapted to the handle below the lock.

Dr. Kristeller enters with some minuteness into the applications and uses of this instrument. He especially insists upon the advantage it offers as a measure of the hindrance to delivery, enabling us to determine the time when the forceps must be abandoned for the cephalotripter.—*Brit. & For. Med. Chir. Review.*

A SUCCESSFUL CASE OF TRANSFUSION.

By Professor MARTIN.

Professor Martin has related to the Berlin Obstetrical Society a successful case of transfusion. A primipara aged twenty suffered a fright in her eighth month; symptoms of inflammation the uterus followed; pains set in with considerable external bleeding, but marked anæmia, with prostration. The os uteri being rigid and undilated, plunging was resorted to. Next morning, a pointing swelling appeared in the scrobiculum, of the pulse could hardly be felt, syncope was frequent, the temperature falling, and death seemed imminent.

The median vein of the right arm was exposed by an incision of the skin four or five inches long, a flat trocar was used to perforate the vein, and six to seven ounces of freshly-drawn blood was injected through a warmed glass syringe. The patient complained of no pain, but immediately showed a blush on the cheeks. The plug now removed, the os was found dilated; the fœtus (dead) was extracted by forceps. The uterus being compressed, the placenta was expelled with more than two pounds of black clot. The maternal surface of the placenta showed a compressed part occupying two-thirds, around which the cotyledons rose in a border like a wall. There was some

after-hæmorrhage, which was stilled by injecting a solution of sesquichloride of iron. Such a degree of anæmia remained, that a second transfusion was resorted to. About three ounces of fresh blood were thrown into the right basilic vein.

The patient gradually rallied. She had æthereal spirit of chlorated iron and laudanum alternately, and warm milk. She ultimately recovered.—*Brit. & For. Med. Chir. Review.*

CHLOROFORM IN MIDWIFERY.

By CHARLES KIDD, M. D., of London.

It is a subject of interest from time to time to take note of the progress that certain discoveries, such as chloroform, are making in the world of practice. Some doubt has been recently expressed by Dr. Robert Lee and Dr. Barnes as to the propriety of using chloroform in special cases of midwifery. Drs. Sinclair and Johnston published 313 cases of this kind, where it was perfectly successful. Dr. Kidd has been furnished with a letter from one of the ablest obstetricians, Professor Doherty, Queen's University, Galway, in which the subject has been as clearly handled as by any of our chief authorities. Dr. Doherty has given chloroform in about 150 cases of various kinds, 130 in the County Galway Infirmary, and in about 30 puerperal case in private practice. The following is Dr. Doherty's letter, which Dr. Kidd esteems of the highest value :—

"As far as natural labour is concerned," he says, "I don't think it justifiable, under such circumstance, to add the risk, slight as it may be, which chloroform produces to the ordinary risks of labour; but there are many cases, usually termed natural, in which its administration is of great benefit to the patient—1stly, when the dilatation of the os is very painful; and, 2ndly, when the latter portion of the second stage is attended with great suffering and excessive uterine action. In the painful dilatation of the os uteri, I consider it invaluable. I don't allude to those short, muscular, thick figured women in whom we often find the neck of the uterus thick, rigid and undilatable. In such persons tartar emetic with or without V.S. is more beneficial; but when the neck is thin and dilating at probably a reasonable degree of speed, but attended with great anguish, such is the case in which chloroform acts as the greatest boon of modern science. Under these circumstances, it is by no means necessary to produce stupor; in fact, I have been astonished at the small dose which has been sufficient to render the pain bearable. The woman is never deprived of her senses, her breathing and the action of the heart are never disturbed by it, and yet she expresses the greatest comfort and most important relief. My mode of administration in these instances is by means of an ordinary Snow's inhaler; but I take the precaution of removing the valve or flap of leather which is immediately adjacent to the mouth-piece, not that over the chamber where the paper or sponge is. I am sure, then, that the patient will draw a large quantity of atmospheric air in along with the chloroform vapour. Once I perceive, by watching her for a little time, that she can imbibe it with impunity, I trust the apparatus to the patient herself, directing her to put it to her mouth the moment she feels a pain coming on, and to remove it when the pain is over. I find she very quickly gets into the habit of obeying these instructions accurately; but I keep my eye on her that she does not continue to inhale after the pain has ceased. With comparatively slight and transient effects I feel convinced I have brought many women over what would otherwise have been more painful and tedious labours from delay in the first stage with little suffering, and they have consequently been afterwards in a far more favourable condition, and their recovery has been more speedy than it otherwise, in all probability, would have been. The latter observation holds good also where the expulsive stage is attended with agonizing and powerful efforts. Chloroform allays the intense excitement, abates unnecessary force, causes the soft parts to yield, and if it does delay labour a little by suspending the voluntary actions, it does so with advantage to the patient both at the time and afterwards. In these cases, however, I find it necessary to carry its effects further than the former, and

I do not trust it to the patient. I avoid, if I can, causing any degree of insensibility, If I can render the process endurable, I consider I have gone quite far enough. Administered to this extent, I have not found it interrupt labour so as to require artificial delivery, and cannot in any case in which I have been obliged to resort to instruments lay the necessity at its door; on the contrary, I am sure some cases would ultimately have become instrumental from exhaustion if the pain of the first stage had not been assuaged by its use. When using an instrument I never give chloroform if my patient is courageous. By explaining to the patient her exact condition, and the step I am obliged to adopt, I find in nine cases out of ten she submits patiently without a struggle. If this be the case, I think it would be better to refrain from giving chloroform; but if she is of a different disposition, I give it and carry it to a stage of stupor. The same observation is applicable, but not to the same extent, in turning. If the waters have been long discharged, or from narrow brim it has become necessary to proceed very leisurely in turning, I always administer chloroform before beginning the operation. It facilitates it by keeping the woman quiet, and by relaxing the uterus. As to whether hæmorrhage follows from its use, I cannot speak positively. I have been present when in two or three instances I thought a disposition to hæmorrhage, which manifested itself after labour, might be due to the chloroform; but in my own practice I take such exceeding great care to follow down with the hand on the abdomen the uterus as it is expelling the child, and to maintain it in a contracted condition by firm and unrelaxing pressure—continued till the placenta is away and binder on, that neither where chloroform has been given, nor in other cases, have I for years past had a single case of hæmorrhage which caused me anxiety. In both, after the expulsion of the placenta, if there be any sign of hæmorrhage coming on, I invariably give ergot with the best results. I have not found the separation of the placenta arrested by chloroform. In some instances where it has been carried to the state of stupor there may be some delay, but according as the stupor passes off the uterus comes again into action. I have never seen any permanent ill effects from its use. Transient headache, and some nervous excitement have in two or three instances followed, but I rather think they were due to the drug not having been pure. Mania has not occurred in any of my cases. I have not had an opportunity of using chloroform in puerperal mania, but I have no doubt it will prove of use, particularly when the person obstinately refuses to take food. By placing her under its soporific effects nutrient enemata, containing a fit dose of opium, will I am convinced, be found most serviceable. In convulsions which are not of the ethenic character, chloroform is of use, particularly the form attended with or arising from toxæmia.—*Dublin Medical Press.*

AMENORRHŒA CONNECTED WITH AN UNDERSIZED UTERUS.

Dr. Simpson, in a "Lecture on Amenorrhœa; its Local Treatment," published in the *Medical Times and Gazette*, gives the history of a case and its treatment as follows:

"The patient was the sister of a doctor, and had been under the care of various medical men at different times, had from puberty suffered from amenorrhœa and its attendant evils, more especially from asthma, recurring every month, and lasting for several days, and interfering sadly with her health and happiness. She had never once menstruated regularly, the uterus being slightly undersized. She had taken quantities of medicine of every possible kind; had been repeatedly leeches, and had been subjected to many different local applications, sometimes with some little relief to her symptoms, but never with any result at all approaching to cure. Believing that in such a case all hope of radical relief was vain, except through measures directed towards the uterus itself, I persevered for a time in the application of nitrate of silver to the lining membrane of its cavity, in the manner I have described to you; and the operation was always attended with more complete and lasting relief than the patient had ever before experienced. This treatment was for several months persevered in; but both she and

I having become tired at last of imperfect and transient results, I had recourse to the introduction of a small metallic pessary into the uterine cavity. In the case of the lady of whom I now speak, the introduction of this instrument was followed by the speedy relief of all her more urgent symptoms, and particularly of her monthly fit of asthma, and after she had worn it for some weeks, she was equally astonished and delighted to find, at the recurrence of her next period, a free menstrual discharge, instead of the dreaded apnœa with which she had been so long afflicted. She continued to wear it for ten or twelve months, until her health became so far restored that she was able to go to a ball,—a kind of amusement in which she had never before been qualified to indulge. When the discharge appeared to have become fairly established, the instrument was at last removed; and for some months the patient continued to menstruate regularly and to enjoy good general health. On the recurrence of cold weather, however, the uterus again failed to perform its function, and instead of having the proper menstrual discharge, she was attacked with one of her old fits of asthma. At her own suggestion and urgent solicitation I again introduced the galvanic pessary; and she wore it for about three years altogether, without ever experiencing from it any kind of inconvenience. The uterus during that time performed its functions painlessly and regularly; the secondary symptoms were all kept in abeyance, and it was only at length finally removed, when the uterus was found to be equal to the performance of its functions without the presence of any irritant in its interior. The same good effects, which were here produced, I have seen resulting from the use of the intra-uterine bougie or pessary in various similar cases.

PLACENTA PRÆVIA; TREATMENT BY THE CAOUTCHOUC WATER PESSARY.

By E. J. FOUNTAIN, M.D., Davenport, Iowa.

Mrs. P., aged twenty, at seven and a half months of her pregnancy, began to have hemorrhage, but without labour pains or dilatation of the os. This ceased partly under the use of rest, cold water enemata, opium, and acetate of lead. At the end of two weeks, it recurred with greater violence and some pain. Dilatation was sufficient to allow the finger to enter, and the placenta was ascertained to be in front. To check the alarming discharge a caoutchouc bag was introduced, and filled full of cold water, which at once arrested the flow. In half an hour it again commenced moderately; the water, now quite warm, was allowed to escape, and the bag refilled. By the continuance of this process through the day and night, the patient was kept safe. When the contents were changed, an examination could be made without removing the instrument. After twenty-four hours, as the os was becoming well dilated, and the pains more regular, turning was thought of, but finally rejected, and the former plan continued. Finally the head pressed down on the placenta, thus perfectly controlling the hemorrhage, and the child was soon born in good condition, about thirty hours after the commencement of the treatment. The placenta was found loose in the vagina.—*Am. Med. Times*, (March 9, 1861.)

QUININE AS A PARTURIFACIENT.

The *Cincinnati Lancet and Observer* for July, contains the proceedings of the Union Medical Society, at Knightstown, Ind. Dr. Cochran reported an obstetrical case, in which the patient was exhausted, and the pains had ceased for some time. He gave ten grains of quinine at one dose, which was speedily followed by strong pains, and the birth of the child. It should be observed that the parturient properties of quinine have several times been under discussion previously before this society. We abstract an opinion or two of other members elicited in the discussion. Dr. Canada said, "It could

not always be relied on; but he viewed it as the most reliable parturient remedy we have." Dr. Cronse thought that "when quinine was given in proper doses, it rarely disappoints."

On a former occasion, Dr. John Lewis said: "When I find a patient in labor, with a rigid os uteri, a tense pulse, and dry skin, I always give quinine freely, use dry cups over the sacrum, and the warm foot-bath, and expect the os uteri to relax, the pulse and skin to soften, the uterine contractions to increase in frequency and force, as surely and as certainly as I would nausea to follow the exhibition of ipecacuanha, or purging from jalap.

Bearing upon this subject we may mention that Dr. J. S. Rich, of Georgia, in the *Charleston Medical Journal and Review* for March, 1860, reports several cases of uterine hemorrhage of alarming character that were speedily relieved by the use of quinine, after the failure of all other known means. Prof. Edward Warren, now of Baltimore, says, "we have found nothing more likely to produce abortion in pregnancy than the administration of large doses of quinine." Several others have ascribed to it abortive powers, when administered in full doses. It is quite possible that it may be found to be a valuable parturient remedy, though in any ordinary doses we do not believe, as an abortive agent, it is at all to be feared.—*Med. and Surg. Reporter*.

SURGERY.

OPERATION FOR THE REMOVAL OF THE HEAD AND NECK OF THE OS FEMORIS, IN A CASE OF MORBUS COXARIUS—CURE OF PATIENT.

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

Master M. H., æt. thirteen, afflicted with hip-joint disease for four years, was brought to me in March, 1857. Six sinuses leading towards the joint were found; two terminating external to the trochanter major, and four considerably above, one near the crest of the ileum. But a probe could not be introduced so as to touch any portion of the diseased structures constituting the joint, though small portions of exfoliated bone had been thrown off through these sinuses at different times. The leg of the diseased side measured about two inches less in length than its fellow, and was only about one-half its size. The leg was flexed and fixed in that condition.

Operation.—The patient was placed upon the right side (the left being the seat of disease), an incision was made nine inches long, extending from the orifice of the upper, to that of the lower sinus. The lower part of the incision was made directly in front of the trochanter major. The upper extremity was made to pass through parts of the gluteus maximus and medius muscles. Having exposed a portion of the trochanter major, a bone chisel was taken, and the soft parts removed from the bone, following it along from the greater trochanter to the inner extremity of the cervix of the femur and the margins of the acetabulum. The capsular ligament was nearly destroyed but an adventitious formation, corresponding slightly to that tissue, was found connecting the internal extremity of the cervix of the femur to the margins of the cotyloid cavity. On pressing upon this structure, purulent matter was forced out through the openings made by the process of ulceration. After finding this state of the parts the joint was opened at once, and the true condition of the articulating faces revealed. The entire head of the os femoris was ulcerating, as was also the articulating face of the acetabulum. The head of the bone was therefore taken away, and likewise a small amount of the cervix. The major portion of the acetabulum was then removed with a bone chisel. The ligamentum teres had been destroyed by the process of ulceration.

The bony tissue being removed as mentioned, the wound was fully opened and the parts examined, to see if any more diseased bone tissue requiring removal remained. None being found, the wound was dressed by applying a piece of lint, wet with an evaporating lotion, in the wound, one end of which was introduced into the acetabulum, filling the space previously occupied by bone. A roller was then applied, commencing at the toes of the limb of that side and continuing up and around the hips as tightly as the patient could conveniently bear it. This was wet with an evaporating lotion every two hours for ten days, when an aqueous solution of permanganate of potass (four grains to the ounce) was applied instead for a week longer, when the dressing was changed for the first time, a major portion of the lint being permitted to remain still in the wound. At the end of four weeks after the operation, the lint was removed from the wound, soap suds injected into the cavity, and the surfaces, whence the diseased bone was taken, examined. These were found covered with healthy granulations. A second piece of lint was loosely introduced into the wound, and the roller still applied as before. The amount of pain experienced by the patient on taking off and reapplying the roller was not very great, but sufficient to afford an objection to the frequent repetition of the change, and the roller was permitted to remain over two weeks at first without any change, partly for this reason, and partly because the proper adjustment of the roller is one of the most important features in the after treatment in this and similar cases. It is to the tightly adjusted roller that we owe the consolidation of the tissue and freedom against the burrowing of purulent matter, a condition so much to be dreaded; the bane in fact of this class of operations. The opening into the joint was made to heal by granulation entirely, but at no time was the granulating surface painful, or otherwise in an unhealthy condition. The patient had not an untoward symptom during convalescence, and at the end of six months from the period of the operation, was able to walk considerably, and constantly improved for five months more, when he was able to walk four miles a day with no other aid than a cane, the wound being at this time entirely cicatrized.—*American Medical Times.*

ON OPERATING FOR FISTULA IN ANO IN PHTHISICAL SUBJECTS.

By Professor THIRY. (*Presse Médicale Belge*, No. 21.)

These observations are intended by their author as a sort of protest against the doctrine maintained by M. Jobert—viz., that the objection usually held by surgeons to operate for fistula in patients suffering under phthisis is a mere prejudice, to be entirely discountenanced; the fistula, in fact, being just like any other emunctory, a cause of debility in this disease, and as such to be suppressed as soon as possible. If the action of a fistula resembled that of a prolonged blister or an issue, as stated to do by M. Jobert, Professor Thiry would agree with him in regarding it as an unfortunate complication to be got rid of as soon as possible. But this is only a faulty interpretation; for he has found in all the cases that has come under his care, that fistulæ and abscesses occurring about the anus in the subjects of pulmonary tubercle, are the result of tubercular deposit at the margin of the anus, constituting only an additional manifestation of the general diathesis. The discharge from such is not an evacuation of matter enfeebling the patient, but a discharge of tubercular matter mingled with pus, and benefiting the patient thus far by removing tubercle which might otherwise have been deposited in the lungs and aggravated his condition. The matter contained in the discharge from these anal abscesses of fistulæ, is shown by microscopical examination to be in part tubercular, and unsoftened tubercular matter also lines the bottom of the cavity whence it proceeds. Soon after the establishment of the fistula the chest symptoms often undergo a notable amelioration, while the patient exhibits many other signs of returning health. If this truce be taken advantage of by the administration of suitable remedies, complete recovery even may ensue, the fistula itself, the last trace of the tubercular diathesis, disappearing spontaneously. Such a result is by no means so rare as is gen

erally supposed, and it would be of yet more frequent occurrence if fistulæ were more frequent than they are, and if proper perseverance were observed in the application of remedies and the observance of an azotized diet. Under the influence of fistulæ and of the treatment which they allow of being put into force, the author has known cavities to have become cicatrized; and so far from regarding them with Jobert as aggravating complications which should be at once removed, he regards them as highly salutary, and would recommend their provocation by every possible means when nature does not produce them spontaneously. The success which M. Jobert states that he has obtained in operating in these cases can only be explained by the supposition that he has had to do only with fistulous tracts proceeding from mere phlegmonous abscesses. A phlegmonous abscess, quite independently of tubercle, may become developed at the margin of the anus, and the resulting fistula may be operated upon with even advantage to the patient; but the difficulty is to distinguish such a case from a fistula acting as a means of elimination of tubercular matter, to the great advantage of the pulmonary affection and the general constitution. The decision is sometimes difficult, and always important, as the very life of the patient may be dependent upon it. However, the general conclusion at which M. Thiry arrives is, that the operation for fistula performed at any stage of phthisis only precipitates its fatal termination. He selects two of the cases which have come under his own notice, as illustrative of the advantage derived from respecting the fistula, at both an early and a late stage of the affection, and he adverts to others in which a contrary practice has been followed by the worst results.—*Brit. For. Med. Surg. Review.*

ON THE EMPLOYMENT OF THE DRY SUTURE.

The foregoing is the rather singular appellation of an interesting paper by Dr. Baelen, in the "Journal de Medecine de Bordeaux," who states it as due to the inventive talents of Dr. Vesigné of Abbeville, at which place Dr. Baelen saw the procedure adopted. We extract the most important part of this paper from our valuable exchange alluded to, merely observing *in limine* that Dr. Vesigné is a distinguished physician of Abbeville, and surgeon in chief to its principal hospital. Dr. Baelen thinks it may prove a useful expedient in military surgery, and considered it his duty to take public notice of it, as a highly ingenious and most satisfactory method of securing the reunion of the severed surfaces of wounds.

Some stout and strong linen strips or ribands, a few pins, some waxed thread and collodion, are all that is required.

The wound should be thoroughly cleaned, and every foreign body removed, the adjacent parts should be also washed, dried, and if necessary, shaven.

Everything being ready, the surgeon takes a number of these linen ribands, observing that their length is proportionate to the depth of the wound. It depends on circumstances whether their number should correspond with the extent of the wound. One or more of the pins is to be fastened into the end of the riband next the edge of the wound, taking care that it has a firm hold, and is in a direction of right angles to the cut surface.

This done, the operator by means of the collodion, fastens on each side of the wound, and opposite the direction as indicated, the ribands thus armed with the sole precaution that the pins placed nearest the wound should be directly opposite each other, and therefore parallel. That part of the riband to which the pin is attached, need not be glued to the skin, but left free if expedient, to the distance of about a $\frac{1}{4}$ inch from the edge of the wound. The adoption of this precaution permits us to protect the skin from the action of the pin, by inserting pieces of lint or other soft material, between it and the skin. There is another precaution equally indispensable, and it consists in the observation of this maxim, that the ribands and pins must be placed exactly opposite each other on each side of the wound, so that when submitted to traction the edges should come exactly into place.

After the attachment of the riband to the skin by means of the collodion has been perfected by the evaporation of the ether, and after an assistant has brought the lips of the wound accurately together by his hands, the surgeon takes his waxed thread and passes it round the pins, in the usual figure of eight manner. Dr. Avigné thinks that the sutures should be independent of each other, as it permits us to augment or diminish at pleasure, the traction on the lips of the wound, without deranging the whole of the dressing.

The *modus operandi* of such a procedure is obvious. A most powerful and sustained traction is effected on the skin, drawing together the cut edges of the wound with the most precise accuracy. The author of the paper enumerates in addition the following advantages:—complete absence of pain—freedom from cicatrices at the points where the old pins passed—great solidity of the wound, proportional to the tractive power employed, which may be maintained as long as we desire—great facility in undressing and redressing the wound—avoidance of all foreign bodies in the wound—freedom from erysipelas in consequence of non-employment of any adhesive plaster—and finally, the ease with which the cause of a secondary hæmorrhage can be discovered, by throwing open the wound to its bottom, without the infliction of the least pain, as nothing more requires to be done under such a condition of matters, than to sever the ligatures to the extent it may be deemed necessary.—*Translated and abridged from the "Journal de Médecine de Bordeaux," by Editor B. A. G.*

TREATMENT OF DELIRIUM TREMENS BY LARGE DOSES OF DIGITALIS.

By T. B. PEACOCK, M.D., F.R.C.P., Physician to St. Thomas's Hospital, London.

CASE 1.—J. T., aged 30, formerly a soldier who had served in North America, the Crimea, and India, and had just returned from Calcutta, was admitted into St. Thomas's Hospital, under my care, on October 14, 1860. He was received, labouring under symptoms of delirium tremens, at half-past two, p.m., and was reported to have taken a quart of spirits daily for several days. At half-past six, when he was in a very restless and excited state, suffering from retching and sickness, and his pulse 103 in the minute, he was directed to have half an ounce of the tincture of digitalis, and the dose was given in a quarter of an hour. At a quarter to eight the pulse had fallen to 72, and was of good volume, and he was much quieter, free from sickness, and disposed to sleep. At eleven, p.m., he was much in the same state; pulse 76 and regular; he had not slept, but was quiet, and still seemed disposed to sleep.

At ten, a.m., on the 15th he was seen by myself: he was reported not to have slept ten minutes during the night, and had been restless and trying to get out of bed, but not violent. The tongue was dry and a little red, the pulse 80, somewhat sharp, and decidedly resistant. The sounds of the heart were natural, except the second, which was somewhat indistinct. The pupils were large, and not apparently affected by light. The urine deficient in quantity, and high coloured. His manner was hasty, but he spoke quite rationally, and he took his food well. During the evening and night of the same day he slept for a considerable period, and the following morning he was much better. He was quite intelligent, but still he had a somewhat agitated manner. The pulse was 80 to 84 in the minute and feeble, and the second sound of the heart was very indistinctly audible. He was directed to have five grains of the sesquicarbonate of ammonia in an ounce and a half of decoction of bark every three hours.

On the 17th he continued to improve, and on the 18th his appearance and manner were much more tranquil, the tongue somewhat dry and slightly furred; the bowels regular; pulse 80. He had made water freely, but said that the quantity was less than usual. He was directed to have the quinine and iron mixture three times daily and the mixed diet. To be allowed to leave his bed. When up there was a considerable increase in the frequency of the pulse—greater than was perhaps explained by his

general state—in the bed it beat steadily 80 in the minute, when sitting up it was 100, and was more irritable and feeble, and when standing it became 120, very sharp and feeble. He was presented and went out cured on the 20th. During the period of his residence in the hospital he was not allowed any stimulus.

Case 2.—S. S., aged 44, a waterman, admitted into St. Thomas's Hospital on October 15, 1860, under the care of Mr. McMurdo, after having sustained a fracture of the thigh from a fall. On the 18th he began to have symptoms of delirium tremens, and had become very violent, when, at 4.45 p.m., a dose of 40 minims of tincture opii was given to him. At 10.30 p.m., the laudanum was found not to have had any soothing effect, and his pulse was 120, and $\frac{3}{4}$ ss. of tincture of digitalis was given. At 11.15 p.m. the pulse was still 120.

19th: At 9 a.m. he was reported to have been violent during the night, but less after taking the dose of digitalis till 4 a.m., when he again became more excited. He had no sleep during the night, but was then quieter. Pulse 98, quiet and feeble. 4 p.m.: He had still had no sleep. The pulse was 98, full and regular. To repeat the dose of tincture of digitalis. 10 p.m.: Has still not slept. Pulse 82, full and regular. Pupils natural and contractile. He has passed a small quantity of water. He appears disposed to sleep. 20th, 4.30 a.m.: Has still not slept. Pulse 80, regular. He has passed some water, which smells of digitalis. To have a glass of gin. 11.25 a.m.: Still no sleep. Pulse 80, irregular and intermittent. 4.45 p.m.: I saw him with Mr. Whitfield. He had still had no sleep. The pulse was 80 and irregular, and he was much depressed. To have six grains of the sesquicarbonate of ammonia in an ounce of decoction of bark every four hours. Two pints of porter in twenty-four hours. 9 p.m.: Pulse 70, irregular, and intermittent. Bowels have been acted upon. To have four ounces of gin and half a dram of the solution of hydrochlorate of morphia and a drachm of aromatic spirit of ammonia directly. 11 p.m.: Pulse 88, regular. 21st, 10 a.m.: Did not sleep till five o'clock this morning. The pulse is now 84, full, soft, regular. The tongue is dry, and he complains of thirst. He has passed water naturally. 9 p.m.: Has slept at intervals and taken his meals naturally, is otherwise going on well. 22nd, 10 a.m.: Has slept during the night. Pulse 80, soft, slightly intermittent. The sesquicarbonate of ammonia every six hours. Full diet. From this time he progressed favourably.—*Medical Times.*

TREATMENT OF WHOOPING-COUGH.

By C. S. SHELTON, M.D., of Springfield, Illinois.

The prevalence of whooping-cough in this city during the past winter and spring, furnished an occasion for testing the value of the extr. belladonna and sulph. zinc, conjointly used in the treatment of this disease, as suggested by Dr. Fuller in the October number of the *Lancet*. His experience in its use, as there reported, was so successful as to encourage the hope that a remedy was found possessed of the power to lessen the severity and cut short the course of a disease which so often gives rise to years, if not of life-long mischief. The use of these remedies, as administered by myself in sixteen cases, goes to confirm the testimony of Dr. Fuller. In every case the effect was beneficial, and in the greater number quite satisfactory, cutting short the cough, in some cases, to ten days, with a palliation of all the symptoms. The ages of the children ranged from six months to ten years. I began with those under three years of age with one-sixth of a grain of the extract and half a grain of zinc four times daily, dissolved in water and gum mucilage. To those above that age, a quarter of a grain of the extract and a grain of the zinc, increasing the dose, in some cases to double the quantity, according as the child could bear it, but never beyond, as the speedy modification of the symptoms rendered it unnecessary in some cases, while in others the system would not bear it. The following effect would be manifest within an hour after taking the medicine, and continue from one to three hours: deep red or scarlet colour.

of the whole surface, particularly of the face and neck; dilatation of the pupil, arterial excitement, dry warm skin, and general excitability of the whole system, which would gradually pass off, leaving no unfavourable effects.

A marked impression upon the disease was the result of the treatment. The paroxysms of the cough were less frequent and less protracted, the whoop not as loud, the spasmodic symptoms greatly subdued, bronchial irritation less, a secretion of the bronchia established at an early stage, and the stomach less disposed to reject food. In the case of my own little girl of two years, an impression was produced in twenty-four hours after taking the first dose. She had coughed severely for ten days, and was cured in ten days from the first administration of the mixture. After three weeks she caught cold, and the cough and whoop returned. She was put again upon its use, with a like happy result.

A boy of seven years had coughed a week, and the cough, with all its attendant symptoms, was increasing in violence. Gave a quarter of a grain of the extract and a grain of the zinc four times daily. The poisonous effects (if I may so call it) of the medicine daily followed its administration. Cured in ten days.

Another lad of six years, who had coughed for two months, was cured in two weeks.

The cases mostly occurred during the months of March and April, at a time of general prevalence of coughs and colds and sudden atmospheric changes. No remedies were given in conjunction with the belladonna and zinc; but in three instances a mixture of syrup of ipecac. and gum mucilage was ordered. From my experience in the use of the extr. of belladonna and sulph. zinc, though limited, I am led to the conviction that they possess peculiar power in reaching the seat of the disease, and that the whooping-cough need not "run its course."—*Amer. Med. Times.*

BREEDING OF TAPEWORM.

By a recent experiment made on the human subject, Mr. Kuchenmeister has again succeeded in demonstrating that the *cysticercus cellulosa* becomes metamorphosed into the *taenia solium* of man. A man, under sentence of death, was induced to eat some pork containing cysticerci. The culprit was executed on March 31, 1860; and on post mortem examination, one-half of the cysticerci swallowed were found to have become converted into flat worms. Eleven tapeworms, with perfectly developed joints, were found in the intestines, the largest measuring five feet.—*Medical and Surgical Reporter.*

QUASSIA IN THE TREATMENT OF CHOLERA.

We noticed some time ago the stoppage of the works on the Jumna Bridge in consequence of the sudden appearance of, and subsequent mortality from, cholera among the workmen. When all other remedies seemed to fail and the number of deaths to be daily on the increase, it was determined to try the effect of Dr. Honigberger's specific quassia. Mr. Honigberger, a merchant of this place, who is a nephew to the doctor, and who has used the remedy with great success, was invited to the bridge to try the quassia remedy.

From the night of the 10th instant, the date of the breaking out of the disease, the total deaths up to the 22d were 144. The first day there were 29 deaths, and for the next few days the average was about 15. On the 16th, the superintendent of the works tried quassia, and he attributes the rapid diminution of fatal cases entirely to it. Not only was this effect visible on this side of the river, but the same effect was visible on the other side where the quassia was also used. The medicine not only acted as an almost certain cure but also a preventive. Twenty-four cases (bad ones) which were inoculated after the patients had been attacked, got well again, and to prevent the disease spreading, more than 600 healthy coolies were inoculated; this had the desired effect as there was not a single death from cholera for nearly a week after.

A native doctor has since been appointed, and an hospital established, where quassia is now the only remedy used and found most efficacious. Dr. De Cruze has treated eleven cases of cholera in all its stages with tincture of quassia and only lost one patient, a child a year old. The rest got over the malady in less time than if they had been otherwise treated.

The plan of treatment is very simple, make an incision in the left arm until the appearance of blood, drop into the cut three to five drops of the tincture. So soon as the blood coagulates bind up the wound with a strip of cloth and keep it moist. For cramps in the legs the incisions are made in the calves. The patients were allowed only cold water and sherbet to drink, sometimes a mussuck of cold water was thrown over the body and head, for the medicine is found to cause extraordinary heat in the body. This refreshed the patients very much. Seven cases out of the eleven noticed were in a state of collapse when taken in hand.

Mr. Honigberger has treated ten cases of cholera, some of whom were in a state of collapse in Kutra and Colonel-gunge, all of whom have recovered. We think it our duty to make known the effect of this extraordinary medicine in curing one of the most dreadful scourges of India. The remedy is so simple that the most ignorant may be taught how to administer it. No one at this time of year, when sickness is so prevalent, should be without a lancet and a phial of the quassia tincture. And the government should at once adopt measures for the introduction of the medicine into their European and native hospitals, and distribute it to every thannah and chokey in the station. Many thousand lives might thus be saved by its means.—*Allahabad Gazette*.

We are glad to say the sickness has considerably abated on the Jumna Bridge. Dr. Honigberger's cholera remedy, tincture of quassia, has been tried with success on even bad cases, and we only hear one or two deaths take place now, about 100 deaths before the inoculation; we think this medicine ought to be in the hands of all government surgeons, for the use of the hospitals. Mr. Bell and other Europeans have done much in alleviating the sufferers.—*Nord West Gazette*.

TREATMENT OF ASPHYXIA.

In the *Berkshire Medical Journal* for April, Prof. W. H. Thayer has an article upon the treatment of asphyxia, the main point in which we consider worthy of redevelopment here.

In cases of suspended respiration, from whatever cause, it is usually directed that the heat of the body be kept up by artificial means during the period of the asphyxia; after the respiration is established, it is usually supposed that the requisite warmth of the body will be provided for by the natural forces. Prof. Thayer takes issue on this point, and says the body should be kept considerably *below* the natural temperature until respiration is restored or established; then the heat of the body should be provided for—in other words, the enfeebled heat-developing forces should be aided by warm clothing, etc. In proof of his positions, he refers to experiments by Buffon and Le Gallois, also by Sir Astley Cooper, in which it was found that animals died much sooner in water at or above blood-heat, than in water thirty or more degrees below it. Dr. Thayer quotes also two or three authorities in support of his views. We make one or two short extracts:

“The surface of the body should be kept cool until respiration is re-established, in order that as little as possible of the oxygen that remains in the system may be consumed.”—*Braithwaite's Retrospect, Part V., p. 48.*

“To elevate the temperature, or to accelerate the circulation, without having first secured the return of respiration is therefore not to save, but, in reality, to destroy life.”—*Ibid, Part XXXIII., p. 88.*

We believe Dr. Thayer's views to be correct, and we have certainly put them, or,

rather, similar opinions, in practice in certain cases, for several years past. In the first three or four years of our practice we were in the habit of placing all still-born children, that gave any promise of restoration, in a warm bath, and we do not now remember having seen one such restored, that was not actually breathing more or less distinctly at the time. Since those first years our practice has been different. If there be pulsation in the cord, we do not separate the child from the mother until respiration is established or the pulsation ceases. Artificial respiration is attempted by the very easy method of elevation and depression of the shoulders. At each elevation, (we mean carrying the shoulders towards the head,) a dash of cold water is poured upon the chest or head. The elevation and depression are made with regularity, and at about the usual intervals of natural respiration. The cold dash is equally regular, and is simultaneous with the elevation movement. If there is no pulsation in the cord, we give the child a few dashes with cold water, and if the respiratory effort is not commenced at once, we separate the child, place it upon a table, and commence artificial respiration, either as above, or by Marshall Hall's method, accompanied still with the cold dash as before. As soon as breathing is established, a well-warmed flannel blanket is in readiness to receive the child, and we consider a few drops of warm sling no detriment at this time, and before commencing with the washing and dressing, which is a severe and fatiguing ordeal for a feeble child. By such means we are confident we have seen a goodly number of children saved, that, by the warm bath, would have been surely lost. We have had the happiness of seeing the maternal eye—wet with weeping—kindle with joy and gratitude at the sound of the first faint gaspings and still feebler cry. When the mother has given up in despair, supposing that she has suffered all the pains of parturition and is still childless, and has taken a sorrowing look at the dead product of her labour, it is no mean joy to be able to make her suddenly happy by handing her a living child—blood of her blood—that she can regard in no other light than as a resurrection from the dead.

A case in point occurred to us only last week. After a rather tedious labor, during the last six hours of which we were in attendance, a male child was born. There was no signs of life, and we did not remember having noticed the least evidence of motion during any period of the labor. The cord was wound around the neck, also around the leg. Liberating the child from these entanglements, there was still found to be no signs of pulsation—in fact the cord was as flaccid as though it never had carried blood. The child gave no unnatural appearances at birth, and we commenced with our efforts as hinted above. Gradually, slowly, and almost imperceptibly, the surface of the body grew faintly dark, darker, and still darker, until the hands, feet, lips, neck, and face were almost black. The mother watched all this, and now she and her friends gave up all hope, and the mother was in the agonies of one bereft of her child and her hope. This change of colour was our encouragement, for it gave us the evidence that the child had not been *long* dead at least. True, the encouragement was but faint, for the change of color, besides the above, only gave evidence of the continuance of a *chemical* change. The oxygen was being exhausted, and the arterial blood converted into venous. When the very dark color was reached, a new discouragement was upon us, for it showed that the oxygen was nearly or quite exhausted, and if we were not quite too late, there was at least but a few moments left to us. Those moments we presumed upon, and tried to improve to the best advantage. Soon a faint gasp brought to our eyes tears of joy, and in less than half an hour we had the satisfaction of handing over to the nurse a living, breathing, *crying* baby.

Such results are not novelties in the hands of good physicians—the idea we would urge is, that, had the child been put in a warm bath, it is more than probable the result would have been different. In the experiments of Sir Astley Cooper, a puppy immersed in warm water died in less than *twelve* minutes; another, of the same age, immersed in cold water, lived *thirty-four* minutes. In the case we have given above; the child was virtually immersed in a cold bath, and yet the colour of the skin, before the first respi-

ratory effort was made, showed that the oxygen of the blood was nearly or quite exhausted; a few seconds more, without a respiratory gasp, and death would have been complete. Had the warm bath been used, this condition of deoxygenation would have occurred two-thirds sooner, or in one-third the time, and before the lapse of the remaining time, death would have been complete, and the child beyond all human powers of restoration.—*Med. & Surg. Reporter.*

BLOODLETTING IN PNEUMONIA.

In regard to the propriety and utility of bloodletting in inflammations in general, and in pneumonia in particular, there is a great diversity of opinions held by different members of the profession. There are, *first*, those who believe that bloodletting is judicious in nearly all cases of inflammation, not actually of a decided typhoid type. They believe that disease has not changed its type, and that bloodletting is as much demanded now as at any former time. They are willing to admit that bloodletting may have been formerly too much employed, but, at the same time, they are confident it is now by far *too little* used as a therapeutic measure.

There are, *second*, those who believe that the fathers in the profession were right—that free and repeated bleedings were actually demanded to subdue inflammation, but that now, because of a change of the type of diseased action, bloodletting is seldom or never necessary. In their opinions, physicians were right fifty years ago, and are right now upon this subject. There is a *third* class, who believe that bloodletting is seldom necessary now; they believe that diseased action is the same now that it was fifty years ago, and that the free and repeated bloodlettings then employed were uncalled for and injurious, as well as based upon incorrect observations and false notions of pathology.

It is interesting to listen to the teachings of those who, for the last fifty years, have closely observed the condition and tendency of diseased action. Before the Berkshire Medical Society, as per report in the April number of the *Berkshire Medical Journal*, the learned and venerable Dr. Alexander H. Stevens made a few remarks upon the treatment of pneumonia, and the change of type in diseased action. Dr. Stevens belongs to the second class of physicians as given above; he believes that the type of disease is materially changed. Formerly he was in the habit of bleeding, and, he thinks, with benefit in diseases that now do not tolerate bloodletting at all. In regard to the time of change we make the following extracts: "I am, and ever have been, of spare habit of body; my weight is about 130 pounds, and was about that in the winter of 1814, when I had an attack of pneumonia. I lost about *sixty ounces* of blood, and felt that each of the three bleedings I underwent did me good. In the year 1815 I had charge of a military hospital, in which were received twenty or more cases of pneumonia. In these cases the serum of the blood was tinged with bile. The disease was new, and afterwards called bilious pneumonia, was well described by Dr. Gallup. It would not bear more than one bleeding. This was the first I saw of the change which has been gradually taking place since that time from a sthenic to an asthenic disease. I no longer, or very rarely find, at the present time, the indications for bleeding as laid down by John Hunter and other observers." Formerly, he says, they were present in nearly all acute diseases."

In regard to the treatment of pneumonia, we stand committed to the opinion that bloodletting is seldom or never necessary. We have not bled a case of pneumonia in the last eight years, nor seen occasion to regret the omission. For nearly four years past, we have not only omitted bleeding, but we have placed nearly all our cases of inflammation of the lungs at once upon quinine and opium. To those who are in the habit of relying, in such cases, upon the lancet, antimony, calomel, etc., this will, doubtless, seem hazardous treatment; but, in the four years, we have not lost a patient with pneumonia, under seventy years of age, and we have seen several recoveries in persons considerably older, as well as in very young children—cases that, under our former methods of treatment, we think, would have died.

Ten or twelve years ago, under bloodletting, antimonials, calomels, etc., our patients were seldom discharged before the end of the third week, and often not until the fourth. Now, it is an exception if he is not discharged by the tenth day. Usually, under from three to five grains of quinine, with five of Dover's powders, with the addition of a little morphine, so as to bring the dose of the opiate up to an equivalent to from one to two grains, repeated every three or four hours, the pulse will come down from 110, 120, or 130, to 80 or 90, in the first twenty four hours; the cough will become less frequent and less tight, and the patient will break out in a profuse sweat. Formerly, we were in the habit of using small doses of antimony and Dover's powder, until the skin became a little moist before using the quinine. Now, we think there is no surer or quicker way to get a cool and moist skin than to give quinine and opium in combination as above, and repeat at rather frequent intervals. This spring we treated quite a number of cases thus, with such uniform results that we often surprised the friends by predicting the exact daily decrease of the pulse, the day of commencing convalescence, and the probab's day of discharge. During last winter, we treated a very severe case of double pneumonia, and another in May last. Both recovered. When the symptoms were alarming, and death seemed imminent, the influence of the remedies was positive. In these cases, the chlorate of potash and veratrum viride were additions to the medicines alluded to above.

In the winter of 1857 and '58, we commenced treating pneumonia with quinine, etc., omitting bleeding. We were not aware that such treatment had been employed or advised, except in cases of malarial or typhoid pneumonia. Dr. Cartwright, of New Orleans, claims to have been the first to recommend quinine in pneumonia, which he says he did in the *Medical Recorder* for April, 1826. Dr. W. H. Howard, of North Carolina, in an able paper upon *malarial pneumonia*, denies this claim, and avers that the quinine treatment was practised in some instances, both at home and abroad, anterior to that time. Dr. T. J. Cogley, of Madison, Ind., in 1857, recommended the use of quinine and capsicum in pneumonia. Several others have done the same, in papers, which we have not the time now to hunt up and specify. We have carefully examined all the papers within our reach bearing upon this point, published anterior to 1858, and if we rightly remember, in all cases where quinine has been recommended in pneumonia, the cases have been regarded as *typhoid* or *malarial*.

We have just been making an observation which, we think, has a bearing upon the idea under consideration. We saw a case last night of diphtheria, in a patient aged about thirty-five years, a man, and a hard laborer. The patient had been sick about a week: there was considerable fever present, pain in the head, etc. The throat presented the peculiar appearance of diphtheria; the tongue was heavily coated, and as black as charcoal, and the pulse at 100. Twelve miles from our residence, we were urged to stay with the patient over night, who was greatly alarmed, and did so. We gave three grains of quinine, and one-sixth of a grain of morphine, and repeated every three hours during the night; also, a tablespoonful of a saturated solution of the chlorate of potash every three hours. This morning the pulse was at 80, and the patient said he had *sweat profusely* all night. We ordered the medicines to be given at intervals of four hours instead of three, with the addition of fresh meat, broths, and egg-nogg. We shall expect the patient to be fairly convalescent in three days. This case, and we might cite hundreds similar, goes to show that quinine is a sedative of no mean importance.—*Med. and Surg. Reporter*.

PRESENCE OF SUGAR IN HEALTHY URINE.

Dr. Bence Jones has confirmed the statement of Brücke that sugar exists in this secretion in its normal state. With the assistance of Drs. Ulrich and Valentine, he has submitted the different processes for detecting and estimating sugar to a close examination. Mehmunn's method—according to which the urine is evaporated to dryness, the residue

extracted with alcohol, the sugar precipitated by alcoholic solution of potash, then re-dissolved in water, and the copper test applied—was not found to be sufficiently delicate, much sugar being lost during the evaporation. The *fermentation* test (production of carbonic acid and alcohol by yeast) was stopped when much urea or oxalate of urea was present: half a grain of sugar in water could be detected by the alcohol produced, and could be approximately determined by the carbonic acid given off; but in concentrated urine much larger quantities may be entirely overlooked. In decolorizing the urine previous to using Soleil's saccharimeter sugar is always lost, whether animal charcoal or basic acetate of lead and ammonia be employed as the decolorizing agent. Pettenkofer's test is pronounced the most delicate known. The urine is mixed with a few drops of a concentrated solution of glychocholic acid* in soda or cholacic acid: three or four drops of concentrated sulphuric acid are then added, and the whole gently heated without boiling. If sugar is present a purple colour is seen at the edge of the watch glass, which is more evident on a white ground. The reaction is not hindered by a little colouring matter, but if the urine contains much it must be removed. Trommer's test failed with $\frac{1}{200}$ of a grain of sugar with 1 grain of hydrochlorate of ammonia; and $\frac{1}{1000}$ of a grain of sugar with 1 grain of urea stopped reduction. The best way of applying Trommer's test is the following, recommended by Lehmann:—Two or three cubic centimetres of the urine are mixed with a few drops of solution of potash, and filtered; then an equal quantity of strong potash is added, with about three drops of solution of sulphate of copper; the whole is well shaken, and the clear liquor poured off from the hydrated oxide of copper which has not dissolved. If the blue solution when heated becomes colourless without depositing suboxide of copper, then two drops more of the sulphate of copper should be added, and the experiment repeated. A separation of suboxide is often thus obtained, but long boiling must be avoided, as sugar is thereby decomposed. But the best results were obtained by Brücke's lead process, according to which the urine is precipitated with neutral acetate of lead, and then with basic acetate of lead, and after filtering off the precipitate ammonia is added; in this last precipitate the chief part of the sugar is found. The authors were able by this process to detect $\frac{1}{7}$ of a grain of sugar in 200 cubic centimetres of urine, and $\frac{2}{3}$ of all the sugar added was recovered; moreover, when sulphuretted hydrogen was used to decompose the ammonia precipitate the sugar could be obtained in a state fit for fermentation, and free from colour, so that the saccharimeter could be employed. For the quantitative estimation of the sugar Fehling's standard copper solution was employed as the most useful and most accurate. This solution is thus prepared:—Dissolve 69 grains of crystallized sulphate of copper in five times their weight of distilled water, and add to it, first, a concentrated solution of 268 grains of tartarate of potash, and then a solution of 80 grains of hydrate of soda in one ounce of distilled water. Put the solution into an alkalimeter tube, and add distilled water so as to make 1,000 grain measures of the liquor. Every 100 grain measures of the solution are equivalent to one grain of grape sugar.

ETHER EMPLOYED IN THE FORM OF AFFUSION IN NEURALGIA.

From two drachms to an ounce and a half of ether are to be poured upon the most painful spot, and to be kept there by means of a small square of linen previously placed on and held in exact apposition to the skin so that no wrinkling of the linen may allow of the escape of the fluid. In this way all the ether is brought into contact with the surface.

The ether should be poured upon the linen in small quantities, according to M. Beder, who originated this method of treatment. A brief pause should be made for the purpose of allowing it to evaporate, then some more of the fluid should be poured upon the linen compress, and this process should be continuously repeated. Similar applications should be made to the other points where the pain is most decidedly manifested.

In recent cases of neuralgia, M. Betbeder says that he has always obtained a notable cessation of pain, often instantaneous, and frequently, also, definitive, without any subsequent relapse of the pain. In old standing cases of neuralgia the effect was much less marked, but even then the relief from the suffering was very satisfactory.—*Annuaire de Thérapeutique*, 1861.—*London Medical Review*.

MATERIA MEDICA.

CHLOROFORM SOLUTION OF GUTTA PERCHA.

Take of Gutta Percha, in small slices, an ounce and a half.

Chloroform, twelve fluid-ounces.

Carbonate of Lead, in fine powder, two-ounces.

To eight fluid ounces of chloroform contained in a bottle, add the gutta percha and shake occasionally till it is dissolved; then add the carbonate of lead, previously mixed smoothly with the remainder of the chloroform, and having shaken the whole thoroughly together, several times at intervals of half an hour, set the mixture aside and let it stand for ten days, or until the insoluble matter has subsided and the solution has become limpid, and either colorless or of a slight straw colour. Lastly, decant, and keep the solution in a glass stoppered bottle.—*American Journal of Pharmacy*.

A MEANS OF DETECTING THE PRESENCE OF CASTOR-OIL IN THE VOLATILE OILS.

BY HARRY NAPIER DRAPER, F.C.S.L.

As a general rule, the volatile oils which are employed in pharmacy and perfumery are, at least in our markets, to be obtained pure; but it does occasionally happen that they are sophisticated with some fluid of low price. Turpentine of wood, alcohol, and the fixed oils are the most common adulterants. It is a very simple matter to detect alcohol, and the admixture of turpentine so much deteriorates the proper odour of the oil that but slight experience is required for its recognition. The insolubility of nearly all the fixed oils in alcohol, and the consequent facility of ascertaining their presence by simple treatment, of the suspected sample, with this reagent is so well known, that this mode of adulteration is seldom attempted. Castor-oil forms however, an exception to the general behaviour of this class of bodies in this respect. Soluble not only in alcohol, but in all menstrua which dissolve the volatile oils, its recognition by the means just pointed out would be impracticable, and its miscibility with alcohol can even be taken advantage of to introduce the latter into the volatile oil in such proportion as to imitate the natural fluidity of a pure specimen. Having recently had occasion to examine an oil which was suspected to be adulterated in this manner, it occurred to me that the reaction, by which ricinus oil when treated with nitric acid gives rise to *œnanthyllic acid* ($C^{14} H^{13} O^3 + HO$), might be taken advantage of for its detection.

This body is a product of the oxidation of the castor oil, and is formed when the warm oil is treated with an excess of nitric acid. A violent action ensues, during which much nitrous acid is disengaged, and there is found floating in the acid liquid, when the residue is mixed with water, a soft unctuous mass, which is, I believe, the *palmine* of Boudet, accompanied by fatty acids. If the acid liquid be now neutralized with carbonate of soda, so as to entirely remove the odour of nitrous acid, the smell of the *œnanthyllic acid* can be most clearly recognised. It is upon this fact that I have based the method of detecting the presence of castor-oil which is now to be described. The *modus operandi* is as follows:—Twenty drops of the suspected oil are

placed in a small porcelain capsule, and heated on the sand-bath until the odour of the oil is no longer perceived. To the residue—if there be any—add five or six drops of nitric acid, and as soon as the action has subsided dilute with a solution of carbonate of soda. If castor-oil be present the odour of the cœnanthylic acid will now be at once perceived, and when once smelled, is not likely to be mistaken for any other. As, however, it can hardly be compared to any other familiar odour, any one who has occasion to use this test will do well to make the experiment with castor-oil alone, and to acquaint himself with the peculiar smell.

In this way I have been able to detect the admixture of five per cent. of castor oil in volatile oils, and have no doubt even a much smaller proportion could be recognised.—*Dublin Medical Press.*

GLYCEROLE OF CHLOROFORM FOR INTERNAL USES.

By Dr. DEBONT.

℞ Glycerine fl ʒ viii.
Chloroform fl ʒ ij.

Each teaspoonful will be found to contain 6 minims of the chloroform, the dose may be therefore regulated in accordance with desire.—*Journal de Medecine de Bordeaux.*

FERRI CARBONAS EFFERVESCENS: A NEW FORM OF CHALYBEATE.

Dr. T. Skinner, in a communication to the *Dublin Medical Press*, recommends the following formula for preparing effervescing carbonate of iron:—

℞ Acidi Tart., ʒ iij.
Sodæ Bicarbonatis, ʒ v.
Ferri Sulph., ʒ x.
Pulv. Sacchari, ʒ j. ʒ vj.
Acidi Citrici, ʒ ij.

1. Mix the sulphate of iron with the sugar and part of the tartaric acid. 2. Mix the citric acid with the remainder of the tartaric acid and the bicarbonate of soda. 3 Add the mixtures, and thoroughly incorporate them by sifting. 4. The whole is now to be thrown into a metallic pan set in a water-bath; in a few minutes it will separate, when it should be rapidly stirred until granules are formed. If preferred, it may then be flavoured with oil of lemon; hitherto, however, the preparation has been without it.

When the above is carefully prepared, it has all the appearance of the popular and well known granular effervescent citrate of magnesia, with the addition of a slight yellowish green tint. Every drachm and a half contains ten grains of sulphate of iron, which, with a complement of bicarbonate of soda, is certain to produce, in a state of solution, four grains of nascent protocarbonate of iron.

MISCELLANEOUS.

ON BUNSEN AND KIRCHHOFF'S SPECTRUM OBSERVATIONS.

BY HENRY ENFIELD ROSCOE, ESQ.,

Professor of Chemistry in Owens College, Manchester.

(Delivered at the Royal Institution, March 1, 1851.)

THE speaker commenced by stating that the researches of Bunsen and Kirchhoff which he had the honour of bringing before his audience, marked a new era in the science of Analytical Chemistry; that by means of these discoveries the composition of terrestrial

matter becomes revealed to us with a degree of accuracy and delicacy as yet unheard of, so that chemical elements supposed to be of rare and singular occurrence, are shown to be most commonly and widely distributed, and on the first practical application of this new method of analysis two new and hitherto undetected alkaline metals have been discovered.

The importance of these researches becomes still more strikingly apparent when we hear that the conclusions derived from them outstep the bounds of our planet, enabling us to determine with all the certainty of definite experiment the actual presence of a number of elementary bodies in the sun.

The colours which certain bodies impart to flame, have long been used by chemists as a test for the presence of such bodies. Thus soda brought into a colourless flame produces a bright yellow light, and substances containing soda in any form give this yellow colour. Potash gives a violet flame, lithia and strontia impart to flame a crimson colour, whilst salts of barium tinge it green. These colors are produced by the incandescence or luminosity of the heated vapour of the various bodies placed in the flame. It is only because these substances are volatile, or become gases at the temperature of the flame, that we observe the peculiar colour. If any substance, such as platinum, which is not volatile at the temperature of the flame, be placed in it, no coloration is observed. The higher the temperature of the flame into which the same substance is placed the greater will be the luminosity; and the more volatile the salt of the same metal, the more intense is the light produced.

Heated to the point of incandescence in any other manner, the vapours of these metals and their salts give out the same coloured light. Thus, if we burn gun-cotton, or gun-paper, steeped in solutions of these various salts, we get the characteristic colours. The well-known coloured fires owe their peculiar effects to the ignition of the vapour of some particular substance. Thus, in red fire we have strontium, in green fire we have barium salts present in the state of luminous vapour.

These facts have long been known and applied, but it was reserved for Bunsen and Kirchhoff to place these beautiful phenomena in their true position, to apply to them the modern methods of exact research, and thus to open out a new and rich field for most important investigations. This they accomplished in a most simple and beautiful manner, by examining these coloured flames, not by the naked eye, but by means of a prism or an apparatus for separating, decomposing, or splitting up the light produced by the incandescent vapour into its different constituent parts.

If we pass white sun-light through a prism, we get the well-known solar spectrum discovered by Newton. The red, or least refrangible rays appear at one end, and we pass through all gradations of colour—noticing on our way certain dark lines or spaces shewing the absence in solar light of some particular rays, lines with which we shall have much to do—until we arrive at the violet, or most refrangible end of the spectrum. If instead of using white sun-light, we pass the rays from the yellow soda flame through the prism, we get the soda spectrum, and we find that instead of a continuous spectrum, all we see is one bright yellow line, showing that every kind of light except that bright yellow ray, is absent in the soda flame; or that the soda flame gives out only one *kind* of light.

And as each metal, sodium, potassium, lithium, calcium, strontium, barium, &c., communicates a distinct tint to flame, so each gives a distinct and characteristic spectrum, consisting of certain bright coloured lines, or bands of light of the most peculiar form and tint.

The actual spectra of these metals can be beautifully seen in the simple apparatus designed by Bunsen and Kirchhoff.

In each spectrum of these metals, the form, number, position, colour, and tone of the bright lines remain perfectly constant and unvarying, so that from the presence or absence of one of these lines, we may with absolute certainty draw conclusions respecting the presence or absence of the particular metal, as we know of no two substances which

produce the same bright lines. None of the bright lines produced by any one metal interfere in the least with those of any other, and in a mixture of all these metallic salts together, each ingredient can thus be easily detected.

As an example of the exactitude with which a very small quantity of a most complicated mixture can thus be analyzed, the speaker quoted Bunsen's words. "I took," says Bunsen, "a mixture of chloride of sodium, chloride of potassium, chloride of lithium, chloride of calcium, chloride of strontium, chloride of barium, containing at most $\frac{1}{10000}$ part of a grain of each substance. This mixture I put into the flame, and observed the result. First, the intense yellow sodium line appeared, on a background of a pale continuous spectrum; as this began to be less distinct, the pale potassium lines were seen, and then the red lithium line came out, whilst the barium lines appeared in all their vividness. The sodium, lithium, potassium, and barium salts were now almost all volatilized, and after a few moments the strontium and calcium lines came out, as from a dissolving view, gradually attaining their characteristic brightness and form."

We can thus detect the most minute traces of any of these bodies, if mixed with the largest quantities of any other substance. The delicacy and accuracy of these reactions is without parallel, as is seen from the following statements:—

1. *Soda* $\frac{3}{1000000}$ part of a milligramme, or $\frac{1}{100000000}$ part of a grain of soda can be detected. Soda is always in the air. All bodies exposed to air show the yellow sodium line. If a book be dusted near the flame the soda light can be seen.

1. *Lithia* $\frac{1}{100000}$ part of a milligramme, or $\frac{1}{100000000}$ part of a grain of lithia can be easily detected. Lithium was only known to occur in four minerals. It is now found by spectrum analysis to be one of the most widely distributed elements. It exists in almost all rocks; it has been found in 3 cubic inches of sea, river, and Thames water; in the ashes of tobacco, and most plants; in milk, human blood, and muscular tissue.

3. *Strontia* $\frac{1}{100000}$ of a milligramme, or $\frac{1}{10000000}$ part of a grain of strontia can be easily detected.

4. *Lime* $\frac{1}{100000}$ of a milligramme, or $\frac{1}{1000000}$ of a grain may be easily detected.

In examining the spectra of the alkalies obtained from certain mineral waters, Bunsen observed the occurrence of two bright blue lines which he had not seen before, when he examined alkalies from other sources. Hence he concluded that these bright lines must be produced by a new, hitherto undetected, alkaline metal. Subsequent search proved the validity of the supposition. The new metal was found and isolated. The analogy between this discovery and a celebrated one in another branch of physical science, will be at once understood. As Adams and Leverrier discovered Neptune, so Bunsen discovered "*Cæsium*" by the perturbations produced in the spectra of the other alkaline metals.

This is, however not all. A few days ago the speaker received a letter from Bunsen, which contains the following most interesting information:—"The substance which I sent you as impure tartrate of *Cæsium* contains a second new alkaline metal. I am at present engaged in preparing its compounds. I hope soon to be able to give you more detailed information concerning it. The spectrum of the new metal consists of two splendid red lines situated beyond the red line *K a* in the ultra red portion of the solar spectrum. Hence I propose to call the new metal '*Rubidium*.'"

That this same method of investigation can be extended to all the metallic elements is more than probable, for Kirchhoff writes—I have assured myself that even the metals of the rarest earths, as yttrium, erbium, and terbium, can be most quickly and certainly determined by help of the spectrum analytical method."

Experiments are being carried on with a view of making this mode of examination practically applicable to all metals.

To turn, now to the second, and, if possible, to the more interesting part of the subject, namely, the conclusions drawn from these observations respecting the composition of the sun's atmosphere. The solar spectrum invariably contains a large number of dark lines, or spaces, or shadows. These have been called Fraunhofer's Lines from the

name of their discoverer. They show us that in the sun's light certain kind of rays are wanting; and as these lines are always present, exactly in the same position, we see that certain kinds of rays are always absent in solar light. There are many thousands of these lines in the whole length of the spectrum. Only a few have been as yet mapped and named.

What is the cause of these constant dark lines? And we must remember that it is in sunlight alone that these particular lines occur; in the light of the fixed stars, as well as in artificial lights, other lines are found. It is the discovery of this cause by Kirchhoff which gives the subject such peculiar interest, as it enables us to draw conclusions respecting the composition of the sun's atmosphere. The points of the case are put as concisely as possible under the following heads:—

1. The solar spectrum invariably contains certain fixed *dark* lines, called Fraunhofer's Lines.

2. The spectra produced by the luminous vapour of all metals contains certain fixed *bright* lines, invariable, and distinct for each metal.

3. All and each of the bright lines thus produced by certain metals—viz. sodium, potassium, magnesium, and iron, are found to coincide exactly with certain of the dark lines of the solar spectrum.

4. Hence there must be some connexion between the bright lines of the metal and the dark solar lines.

5. The connexion is as follows:—Each of the dark fixed lines in the solar spectrum is caused by the presence in the sun's atmosphere of the luminous vapour of that metal which gives the coincident bright line.

By taking a special case we may more easily understand the matter. Let us examine the question why it is to be concluded that *Sodium* occurs in the sun's atmosphere? In the following sentences the reasoning on this subject is rendered clear:—

1. The light emitted by luminous sodium vapour is homogeneous. The sodium spectrum consists of one double bright yellow line.

2. This bright double sodium line is exactly coincident with Fraunhofer's dark double line D.

3. The spectrum of a Drummond's Light (like that of all incandescent solids) is continuous. It contains no dark lines or spaces.

4. If between the prism and the Drummond's Light a soda flame be placed, a dark double line identical with Fraunhofer's dark double line D is produced.

5. If instead of using Drummond's Light we pass sunlight through the soda flame, we see that the line D becomes much more distinct than when sunlight alone is employed.

6. The sodium flame has, therefore, the power of absorbing the same kind of rays as it emits. It is opaque for the yellow "D" rays.

7. Hence we conclude that luminous sodium vapour in the sun's atmosphere causes Fraunhofer's dark double line D. The light given off from the sun's solid body producing a continuous spectrum.

8. In similar manner the presence in the solar atmosphere of potassium, iron, magnesium, nickel, and chromium has been proved.

Kirchhoff's own words may perhaps render this matter still more plain. "The sun," says Kirchhoff, "consists of a glowing gaseous atmosphere, surrounding a solid nucleus which possesses a still higher temperature. If we could see the spectrum of the solar atmosphere without that of the solid nucleus we should notice in it the bright lines which are characteristic of the metals it contains. The more intense luminosity of the internal nucleus does not, however, permit the spectrum of the solar atmosphere to become apparent; it is *reversed* according to my newly discovered proposition; so that, instead of the *bright* lines which the luminous atmosphere by itself would have shown, *dark* ones appear. We do not see the spectrum of the solar atmosphere itself, but a negative image of it. This case however, with an equal degree of certainty, serves to de-

tect the metals present in the sun's atmosphere. All that we require for this purpose is a very accurate knowledge of the solar spectrum, and of the spectra of the individual metals."

Kirchhoff is at present engaged in continuing these observations; and although only eighteen months have elapsed since the first discovery was made, he has already mapped more than seventy lines in the solar spectrum, between D and E, which are produced by iron. He has shown that the well-known group in the green known as *b*, is caused by magnesium, whilst other coincident lines prove the presence of nickel, chromium, potassium, and sodium in the solar atmosphere.

The speaker regretted that he was unable to show even a drawing of the coincident lines, as no representation of them has yet been completed.

The lines produced by many metals possessing very distinctly marked spectra are seen to coincide with *none* of the dark solar lines; and hence the conclusion is drawn that these metals—for instance, silver, copper, zinc, aluminium, cobalt, lead, and antimony—do not occur at all, or at any rate occur only in very small quantities in the sun's atmosphere.

The speaker said that he should not soon forget the impression produced on his mind when visiting his friends in Heidelberg last autumn, by seeing the splendid spectacle of the coincidence of the bright lines of the iron spectrum with the dark solar lines. In the lower half of the field of the telescope were at least seventy brilliant iron lines of various colours, and of all degrees of intensity and of breadth; whilst in the upper half of the field, the solar spectrum, cut up as it were, by hundreds of dark lines, exhibited its steady light. Situated *exactly* above each of the seventy bright iron lines was a dark solar line. These lines did not only coincide with a degree of sharpness and precision perfectly marvellous, but the intensity and breadth of each bright line was so accurately preserved in its dark representative, that the truth of the assertion that iron was contained in the sun, flashed upon the mind at once.

The speaker concluded by remarking that these researches are still in their earliest infancy; that the dawn of a new stellar and terrestrial chemistry has been announced, thus opening out for investigation a bright prospect of vast fields of unexplored truth.

CONCEALMENT OF A BURGLAR'S INSTRUMENT IN THE RECTUM.

The Paris correspondent of the *Lancet* relates the following remarkable affair:

"A curious case recently brought before the Society of Surgery throws some light upon the mysteries of the Bagnio, and illustrates the desperate nature of the expedients to which the galley-slaves are in the habit of resorting, in order to elude the vigilance of their gaolers. A convict at the prison of Vannes, in Normandy, condemned to fifteen years of hard labor for robbery, was suddenly seized with colic, vomiting, and fever, accompanied by obstinate constipation. In the presence of these symptoms of intestinal obstruction, search was made for a hernia, but none was found. The prisoner, aware of the gravity of his state, and hard-pressed for some explanation as to the origin and cause of the disorder by the attendant physician, confessed to having been in the habit of secreting within the cavity of the rectum the money he happened to possess. An examination of the lower bowel, first by the finger, and then by a long pair of forceps, threw no light upon the case; the intestine was empty. The peritonitis daily gained ground, and the patient, evidently sinking, was again urged to give some more satisfactory clue as to the source of the disease. He now somewhat modified his previous statement, and said that he had introduced into his rectum, a few days previously, a cleft stick, which he used as a *porte-monnaie*, and that in the hurry of a sudden alarm, the pointed end had been inserted foremost, in lieu of the blunt extremity. The left hypochondriac region was then carefully explored, and towards the upper part of the *descending* colon, a voluminous tumor was discovered; this corresponding with the point of the obstruction. Towards the end of the seventh day the man died, and the

autopsy revealed the following; The usual post-mortem signs of acute peritonitis—serous effusion, false membranes, enormous distension of the intestines by flatus; and, moreover, the existence of a foreign body of considerable size and weight, occupying the *transverse* colon. This body, on its withdrawal from the intestine, proved to be a substantial metallic case, of cylindrical form, enveloped in a piece of bladder, and possessing a conical extremity, which pointed upwards, i. e., towards the cæcum. When stripped of its covering, the cylinder, which weighed one pound five ounces, was found to be a case or tube, in hammered iron, closed at one end, and provided with a cover at the other, six inches and a quarter in length, and two in diameter. Within were found an iron tube; part of a gun-barrel four inches long; an iron screw and nut; a turn-screw; two small saws, one for wood, the other for cutting metal; the drill of a centre-bit; a file; a piece of two francs, and four pieces of one franc, together with a lump of grease—a complete thieves' arsenal. On a closer examination, it was ascertained that these instruments, united by means of the nut and screw, could be made to form a powerful lever, capable of wrenching asunder the bars of a window-grating, and thus affording the means of escape. Thanks, no doubt, to the possession of this portable "jimmy," this very convict had, on a former occasion, and when imprisoned in the gaol at Brest, been enabled to regain his liberty. The medical interest of the case lies, of course, entirely in the acquired tolerance of the rectum for so enormous a suppository, and in the manner in which this capacious iron cylinder had travelled along the intestine, upstream, and against the peristaltic current, and rounded the corner of the *transverse* colon, in spite of gaseous distension and muscular opposition. According to the experience of the turnkeys of Vannes, the concealment of contraband articles, by insertion into the rectum, is almost universal amongst the convicts, and the little conical boxes, carried for the purpose by the galley-slaves, are commonly known amongst themselves as 'nécessaires.'

DANGEROUS COSMETICS.

At a recent sitting of the French Academy of Medicine, Dr. Réveil read a paper "On the Necessity of Preventing Perfumers from Selling Poisonous or Dangerous Articles," which should be exclusively left to the responsibility of regular chemists, and not sold without a physician's prescription. "To show the danger there is in allowing the unchecked sale of certain compounds," he said, "I need but state that arsenic, the acid nitrate of mercury, tartar emetic, cantharides, colchicum, and potassa caustica, form part of their ingredients. The kind of soap called lettuce-soap, which is sold with the announcement that it has been acknowledged by the Academy, does not contain the slightest trace of lettuce. This and other soaps are all colored green by the sesquioxide of chromium, or of a rose color by the bi-sulphuret of mercury, known as *vermillion*. Some, which are cheaper, contain 30 per cent. of insoluble matter, such as lime or plaster; while others contain animal nitrogenous matter, which, having escaped the process of saponification, emit a bad smell when its solution is left exposed to the air. The various toilet vinegars are so far noxious that, being applied to the skin still impregnated with soap and water, they give rise to a decomposition, in consequence of which the fatty acids of soaps, being insoluble in water, are not removed by washing, become rancid, and cause a chronic inflammation of the skin. The preparations employed for hair-dye under the pompous names of 'African water,' 'Florida water,' &c., all contain nitrate of silver, sulphur, oxide and acetate of lead, sulphate of copper, and other noxious substances. All cosmetics for removing hairs or freckles are dangerous; the *lait antéphélique*, for instance, contains corrosive sublimate and oxyd of lead. Were a chemist to deliver such a remedy to a customer without a regular prescription, he would be liable to a fine of 6000f."

Dr. Réveil concluded by expressing his regret that certain physicians should so far forget their own dignity as to lend the support of their names to such noxious inventions.—*Galvani's Messenger*.

THE
British American Journal.

MONTREAL, SEPTEMBER, 1861.

AN ANNUITY FUND FOR DISABLED MEMBERS OF THE PROFESSION, OR FOR
THEIR WIDOWS AND FAMILIES.

It will be fresh in the memory of our readers, that at the last semi-annual meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada, notice was given by Drs. Smallwood and Gilbert, that a motion for the formation of a "College Medical Benevolent Fund," would be submitted to the consideration of the ensuing triennial meeting of the College. A professional engagement prevented our presence at that period of the session of the Board when that notice was given, and we are therefore ignorant of the intentions of the mover and seconder—whether the object in fact be the relief of disabled members of the profession, or the relief of their widows and offspring. We have little doubt that this motion originated out of a distressing case which was presented to the meeting of the Board. It appears that a Dr. Boudreau, a provincial licentiate, left this country, when the Californian gold fever was at its height, for California. Having arrived there, he became attacked, as we have understood, with one of the endemic fevers, the result of which, from its severe influence on the brain, was amaurosis. He is now, and has been for years, perfectly blind. So far as we have understood he is a gentleman whose morality in every respect is unimpeachable. Despite of this severe dispensation he has continued to practice his profession as best he could, by the aid of an amanuensis to write the prescriptions which he dictated, but in surgical cases or operative procedures, he was indebted to the kind heart and hand of one, who has placed his services at his disposal, who we know has frequently operated for him, and who, we also know, would be displeased if his name was mentioned openly. It was presumed that this was a case deserving of a temporary alleviation by the Board. A petition was accordingly presented, and its fate is recorded in the following lines:—"that the Board had no power so to dispose of the funds of the College, and moreover, because the petitioner was not a member of the College."

In this denial of assistance under such peculiar circumstances, ugly as it is, we cannot but concur. The Board of Governors has received no authority from

the College to disburse the funds of the College otherwise than has been directed by the By-laws. The Board is but the executor of the College, and may not transgress with impunity its acknowledged instructions as contained in the By-laws. But the presentation of a petition, and the denegation of the prayer, have awakened a most important reflection, whether it would not be better to devote, as under the circumstances indicated, a trifling amount to an object of charity from time to time, as necessity may arise, or at once to adopt the more noble and legitimate (in our opinion) system of rendering the annual contributions of the members of the College subservient to a certain extent, to the relief of the wants of their families when they themselves have gone to their narrow homes; and their near and dear ones left, as occurs in ninety-nine out of a hundred cases, almost penniless in the world.

Of the three professions, Divinity, Law and Physic, it may be said, that the representatives of the first class scarcely do more, from the scantiness of their annual salaries,—which is barely sufficient in the large majority of instances,—than support their families, and maintain their external appearance as gentlemen. Hence in most of the churches provision has been wisely made, in the event of their demise, for the support to a certain extent of their widows and families. The members of the second profession,—whether by the industrious pursuit of their calling, or their preferment to offices of place and power, which seems, however absurdly to be considered as centred in it,—continue in the majority of instances not only to possess an abundance of this world's goods, but are enabled also to leave fortunes to their families. With the third class, whom we represent, and than whom none toil more severely, whether by mind or body, through heat or cold, through wet and dry, by night and by day, how many let us ask, how many by their own fruitful toil, unaided by extrinsic circumstances, are enabled to leave even an adequacy for the support of their families? Very probably not one per cent. and we have little hesitation in stating, that the labour in the profession of medicine is immeasurably more severe than in either of the two sister professions. And usually with so poor a prospect those who propose entering its pale, there must be something beyond the mere love of lucre which tempts and attracts. What that is which can thus inspire men to devote their lives to the relief of a suffering humanity beyond an influence so powerfully operative in ordinary minds, any one who has once imbibed its limpid streams can tell. We do not arrogate for our profession a preeminence over the others. Far be this from us; for as much human salvation transcends in the sublimity of its object everything of a sublunary character, so must the palm in this respect be awarded to the profession of Divinity. But if our profession has to succumb in such a respect to the nobler one alluded to, it yet as much transcends that of law, as the salvation of human life is not to be measured by pounds, shillings, and pence. That there is something peculiarly attractive in the study of medicine consists in the fact, that independently of its high and almost holy mission, there is no subject connected with natural science of which it does not, may not, take cognizance. Hence there is none, with the exception mentioned, which induces its student to search more narrowly, and recognize a "nature's God;" and therefore none which can induce a man for that sake, who

is thoroughly imbued with the true feelings or principle of his profession, to devote his time, which is his means, to works of benevolence and charity. How much of a physician's time might have been devoted to profitable pursuits which might have enriched his purse, let the history of every physician pronounce, no matter what his present status. Hence there must exist little wonder why physicians generally die poor, leaving nothing for their families but a name, it may be possibly among the honoured ones of the earth, but a *vox et præterea nihil*. Hence we regard the motion of Drs. Smallwood and Gilbert as a step in the right direction, and sensibly alive to the *animus* which prompted it, we take it up and most cordially endorse it.

But the subject as it now stands is, we cannot but acknowledge, fraught with difficulties. The amount at the disposal of the College at present, after its so many years of existence, is but a small one, scarcely exceeding, we believe, some £250. And the annual subscription of the members, is entirely insufficient to warrant such an appropriation of the interest of that sum: and although the fees from candidates are sufficient to meet the ordinary travelling expenses of the distant members of the Board of Governors who feel disposed to do their duty, it would yet take a long time before such an increase could be effected in it, as to make it a fund worthy of such an object. Some additional means must be resorted to among those who look forward to so desirable a result—and we see none other likely to serve its purpose, than a special fund destined to that object. Most assuredly the funds of the College could not by any possibility be appropriated in a more desirable manner, and we look with some earnestness to the scheme which the proposer and seconder of the motion have in view. We think that in anticipation of the Triennial meeting, when it is intended that the subject will be brought before the College, the subject should be discussed fairly and openly, and we will with pleasure open these pages to any communications on the subject. It is thus by rendering the college a useful institution, in the truest acceptation of the word, rendering it, in fact, something more than a Board of Examination for candidates desirous of entering the profession, that it will be enabled to fulfil an object to which it may with the greatest propriety be devoted.

J. J. E. LINTON, Esq., CLERK OF THE PEACE FOR THE COUNTY OF
PERTH, C. W.

(*Ecce iterum Crispinus!*)

Just twelve months have elapsed since we had occasion to expose and denounce Mr. Linton's feelings towards McGill College and Lower Canada Licenses, and the fact that he had circulated throughout the length and breadth of the land an infinite number of copies of a lucubration of his which he contrived to get published both in the "Pilot" of this city, and the "Examiner" of Stratford. One would have imagined that the matter had died out—but it appears that Mr. Linton, our most particular friend, has been "nourishing his wrath to keep it warm." We have a right to question his taste in promoting discord while professing to be a "Clerk of the Peace." It appears that he has been reissuing these celebrated manifestoes, but if they are productive of no greater injury to our University, and the value of our licenses, than was effected last year, we trust

he will continue his kindly work year by year, and prove himself, as far as McGill College and Lower Canada are concerned, possessed of the very milk of human kindness, as we feel convinced he could do us no greater favour.

People, however, will naturally ask, what is the cause of this fresh proceeding of J. J. E. Linton, Esq., Clerk of the *Peace* for the County of Perth. An unkindly disposition on the part of a great number of our people might attribute it to malice, vindictiveness, or some other equally reprehensible motive; the more charitably disposed of the community however will we have no doubt be disposed to attribute it to some mental infirmity at the utmost, if indeed they do not regard it as a decided attempt to advance or promote Lower Canada interests, for which we cannot but feel too grateful. Possibly the learned and wise expounder of the law has a *Gacoches scibendi*, and seeks an opportunity of smuggling himself into print again. Time, which tells all things, will doubtless disclose the effects of this twelve months' incubation, as long a period as a jenny-ass requires.

GEORGE McLEAN, Esq.

We must say, albeit in a merry mood, that "it never rains but it pours." Mightily pleased with Mr. Lincoln's efforts in promoting the best interests of our Lower Canadian Institutions, we have to thank Mr. McLean of Bay Street, (it should have been Baa Street, a more appropriate name,) Toronto, for a letter of thanks for the notice of his "very valuable" nostrums in our last number. As we think that that was notice enough, we decline to insert his self-laudatory epistle. He can see no difference between a letter of ours, recommendatory of the Plantagenet water, a mineral spring in certain complaints, and those of the medical gentlemen in favour of his nostrums. Will he permit us to inform him that the composition of the one is known, that of the other unknown; that the one is a natural production, the other artificial; and that like Hamlet's father and his uncle, the one is an "Hyperion" the other a "Satyr." If Mr. McLean desires to receive the *Journal*, we should like in all humility to receive his *request* for it "in less questionable shape," and we will be most happy to comply with it.

The Buffalo Medical and Surgical Journal and Reporter. Edited by Julius F. Mines, M.D., Surgeon to the Buffalo General Hospital.

We acknowledge the reception of No. 1, Vol. I., of the aforementioned periodical, and will with great pleasure place it on our exchange list. It opens with an interesting address by Dr. Austin Flint, before the Erie County Medical Society. The *Journal* is well and vigorously edited. The political troubles in the United States, however, render it a question of doubt whether a newly started periodical can sustain itself at present. We certainly wish it the utmost amount of success.

EDITORIAL SUMMARY.

Bayonetting the Wounded.—After the late fight at Bull Run, Surgeon Barnes of the 28th Regiment New York volunteers, reports that "he selected a retired spot, under a

large tree, as a temporary place wherein to dress the wounded; and to signalize it, hung his green sash on the limb of a tree. It was soon recognized by the enemy, and after about thirty wounded soldiers had been brought to him, after having performed the required dressings and operations, the cannon-balls of the enemy began to play upon the party. As his assistants and servant had left, he had to leave to seek the assistance of ambulances to remove the wounded, and on his return, he found "every one of the wounded bayoneted or sabred." Independent of this evidence of the fact, an officer of the Massachusetts 5th Regiment, lying wounded on the field, heard the order given by a rebel officer to "bayonet the sons of — red shirts," and cannon were frequently made to bear on ambulances carrying off the wounded. Dr. Barnes lost his sash, coat, sword, watch, and all his medical instruments. In the 19th century a tale of the above kind is scarcely credible, but we believe that in a *civil* war, far more than in any other kind, in which the passions are roused to a higher pitch, such scenes are more apt to occur. It is a disgrace to the Christianity of the present time, and a lasting shame to the cowardly perpetrators of the deeds, for they are cowards indeed who would raise offensive weapons against unarmed or disarmed persons, and use them. The symbolized spot, near a field of battle, where the surgeon is performing his office of humanity, should be a sacred one, around which every sentiment of Christian feeling and true honor and generosity should throw their protecting ægis.

A Substitute for Silver.—Messrs. De Ruolz and Dr. Fontenay have, after years' work, discovered a new alloy, which may be used for small coin and industrial uses. It is composed of $\frac{1}{3}$ silver, 25 to 30 per cent nickel, and from 37 to 52 per cent copper. The inventors propose to call it *trisilver* or *tiers-argent*; and its perfection is said to be a triumph of metallurgical science. It is stated to be ductile, malleable, easily fused, and emits a fine sound when struck, is not affected by exposure to the atmosphere, and not attacked by any but the strongest of acids. It resembles platinum in colour, and possesses extreme hardness and tenacity; has no odour, and a sp. gr. a little less than that of silver.

Army Medical School at Chatham.—We understand that the various professors at this recently established institution have now ample leisure for their scientific experiments, as the whole of the last batch of successful candidates have been summarily placed on half-pay. No eave of any of the great medical schools now dreams of exposing himself to a curriculum, his success in which can only lead to disappointment. The fact we believe to be, is that the school is virtually "to let" there being neither candidates nor pupils.—*United Service Gazette*.

Stringent Resolutions Against Homœopathy, &c.—At a meeting of the Council of the Royal College of Surgeons in Ireland on Aug. 2nd, the following ordinance and resolution were finally adopted:—

"No fellow or licentiate of the College shall pretend or profess to cure diseases by the deception called homœopathy or the practices called mesmerism, or by any other form of quackery; neither shall they or any of them seek for business through the medium of advertisements, or by any other disreputable method. It is also hereby ordained that no fellow or licentiate of the college shall consult, meet, advise, direct, or assist any person engaged in such deceptions or practices, or in any system or practice considered derogatory or dishonourable by physicians and surgeons."

The College of Physicians has adopted the following form of declaration to be taken by licentiates on admission:—

"I engage not to practise any system or method (so-called) for the cure or alleviation of disease, of which the College has disapproved; nor to endeavour to obtain practice or to attract public notice by advertising, or by any other unworthy means. I also engage that I will neither permit nor sanction the use of my name by any other person for such purposes, nor in connection with any secret or other remedy; and in case of any doubt relative to the true meaning or application of this engagement, I promise to

submit to the judgment of the College. And I solemnly and sincerely declare, that should I violate any of the conditions specified in this declaration; so long as I shall be either a licentiate or fellow of the College, I thereby render myself liable, and shall submit to censure of the College, pecuniary fine (not exceeding twenty pounds), or expulsion and surrendering of the diploma, whichever the President and Fellows of the College, or the majority of them, shall think proper to inflict."—*Dublin Medical Press*.

Military Hospitals in Washington and Neighbourhood.—The first is the Washington Infirmary, established several years ago for strangers and homeless persons. It can accommodate 180 patients and is full. It is attended by Drs. White, Gouley and Butler, with assistants. The Sisters of Mercy attend to the nursing. 2nd. The Columbian Hospital, capable of accommodating 250 patients. Chief physician, Dr. Abadie, assisted by Drs. Asch, Brainard, Adolphus and Knickerbocker. 3rd. The C. Street Hospital for regulars, consisting of a couple of dwelling-houses, rear of the National Hotel, has 78 beds. Name of Physician not given. 4th. Union Hotel Hospital, Georgetown, is an old tumbledown hotel, which has been devoted to hospital purposes. It has 24 beds and is attended by Dr. Gainselan and assistants. 5th. Seminary Hospital, Georgetown, "is an old barrack-like structure, long used as a boarding school." It has 162 beds, and is under the professional charge of Dr. J. R. Smith and four assistants, Wolverton, Riley, Norward and Kennedy. "Small rooms, tortuous passages, and an insufficient water supply are the defects of the Hospital. And 6th, the Military Hospital at Alexandria, "formerly an old seminary," contains 104 patients. Dr. — of the navy is in charge, with two assistants, and eight lady nurse. In all the hospitals the nursing is done by "ladies." Whether these are ladies of the Florence Nightingale stamp, or females of an inferior social standing, we are unable to say. With regard to the character of the diseases, it is "remarked that about 500 of the patients are suffering from wounds, a few from dysentery, a considerable number from articular rheumatism, and the remainder from typhoid fever, diarrhea, &c." Surgeon-general Finley proposes to establish a Sanitarium for the convalescents at the naval academy, at Annapolis, and about 200 patients had been removed there.—*Extracted and abridged from a letter of a correspondent to the American Medical Times, Aug. 24.*

"AXTRAMANKAZ."

In the course of a trial on a will case, in the Court of Probate and Divorce, before Sir C. Creswell, "*Jones versus Her Majesty's Proctor*," the following curious evidence was elicited :—

The plaintiff, Dr. David Griffiths Jones, when cross-examined by the Queen's Advocate, said—"I have practised homœopathy and also hydropathy for nine or ten years. I combine the two systems. By hydropathy I mean hot and cold water treatment, diet, and exercise. I was originally bred an allopathist. I know a medicine called, not the 'astramancax,' but the 'axtramankaz.' (Laughter.) I don't know at all what the word means. I bought the receipt from which I make the axtramankaz from an old Dutchman in London, whose name I forget. It is a farinaceous substance, a substitute for cod-liver oil. It may be made of cereals, rice, and other compounds. There is a common vegetable produce in it. What it is, is my secret. I had an establishment for its sale at 449, New Oxford Street. I had an assistant there, Mr. George, who brought an action against me. The sale went on in New Oxford Street until 1857, when the establishment closed. The commodity is still sold at any wholesale chemists. I took out a patent for it, but I forget when. I took my degree at Aberdeen in April 1853. The Dutchman's receipt was not written in Latin or in Dutch but in English. I have lectured on hydropathy and homœopathy at various halls in London and in the country."

It was proved that the plaintiff had never been to Aberdeen, but there had been an understanding between him and a man named Reeves, who had represented Jones at the examination, and had obtained a degree of M.D. of Marishal College, Aberdeen, by passing the examination, and signing the paper "D.G. Jones."—*Pharmaceutical Journal*.

The Debusscope.—This name has been given to a recent French invention, which consists of two silvered plates, highly polished and of great reflective power, placed together in a frame-work of card board or wood, at an angle of seventy degrees. On being placed before a small picture, a design of any kind, no matter how rough, or whether good or bad, the debusscope will reflect the portion immediately under the eye, on all sides, forming the most beautiful designs; and, by being slowly moved over the picture, will form new designs to any extent. The instrument gives the design in such a manner that it can be made stationary at pleasure until copied. It is, therefore, an inexhaustible treasure to draughtsmen and others. Setting aside the utility of the debusscope altogether, it can be made the means of gratification in the drawing-room, and, doubtless, will soon assume its proper place along with the microscope and stereoscope as a source of amusement.—*Chemist and Druggist*.

New York Medical College.—Dr. E. Noeggerath has been appointed to the chair of clinical midwifery, and diseases of females in the above institution, and a new chair of ophthalmic and aural surgery has been created, to which Dr. W. F. Holcomb has been nominated.—*American Medical Times*.

BOTANICAL SOCIETY OF CANADA.

REGULATIONS FOR THE EXCHANGE OF SPECIMENS.

The laws of the Society provide for the formation of a public herbarium and the extension and improvement of private herbaria. In order to accomplish these important objects, arrangements have been made for receiving from members contributions of dried specimens of plants, and for supplying in return the desiderata of such members. The following regulations have been framed for regulating the exchange of specimens:

1. The distribution of specimens shall be conducted by the Curators, and shall commence on the 15th November annually, before which time all contributions of specimens must be sent in by members who desire to participate in the distribution.

2. To entitle a Fellow or Subscriber to a share of the Society's duplicate specimens at any of the annual distributions, he shall have transmitted to the Society before the 1st November, not less than 50 species of plants, with as many duplicate specimens of the rarer ones as possible.

3. All specimens contributed to the Society must be carefully prepared, by being pressed between sheets of paper in the usual way, but not fastened down to paper in any way. Each specimen is to be accompanied by a label containing the name of the plant, together with the locality where collected, the date of collection, and the collector's name.

4. Universities and societies forming herbaria and corresponding with the Society will be permitted to take precedence of the members in the annual distributions. The Society's public herbarium will be invariably supplied with such specimens as may be required before any distributions take place.

5. Members are required to send, along with annual contributions of specimens, a list of those species which they desire to receive in return, or otherwise to specify in sufficiently explicit terms the nature of the plants wished for.

The above rules will be strictly observed. Foreign botanists, in various parts of the world, have expressed a desire to contribute to the Society's collections. There are spontaneous and liberal offers from Tuscany, Sicily, France, Australia, and other distant parts. It remains for the botanists of Canada to say, by their contributions this autumn, whether the Society will be able to enter upon such advantageous exchanges.

All communications for the Botanical Society of Canada are to be addressed to Prof. Lawson, Kingston, C. W.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Mount Royal Cemetery, May and June, 1860.

By G. E. FENWICK, M.D.

MAY.

Disease.	No.	Stillborn.	Age.							Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Country.			
			Under 2 Years.	2 to 8 Years.	8 to 15 Years.	15 to 20 Years.	20 to 30 Years.	30 to 40 Years.	40 to 50 Years.												50 to 60 Years.	60 to 70 Years.	Over 70 Years.
Stillborn	1	1																					
Small Pox	1		1											1									
Measles	1		1																	1			
Scarlet Fever	5		1	1	2		1							2	1	1	1						
Convulsions	1		1																				
Hydrocephalus	3		1	2									1				1	1					
Congestion of Brain	1				1										1								
Inflammation of Brain	1					1								1									
Apoplexy	2						1	1				1											
Disease of Spine	2		1	1									1		1								
Hooping Cough	2		2									1											
Croup	2		1	1													1	1					
Inflammation of Lungs	1						1									1							
Consumption	4			1			1	1	1						1	2			1				
Disease of Heart	1								1									1					
Liver Complaint	1									1									1				
Inflammation of Kidney	1					1								1									
Rupture	1							1							1								
Accidental	3						1			1			1				1		1				
Senile Debility	2									2			1						1				
General Debility	2						1		1							1	1						
Infantile Debility	2		2													1			1				
Unknown	3		1				1		1					1		1			1				
Total	43	1	10	8	3		3	6	3	4	2	2	1	1	1	2	8	5	10	6	1	4	5

Of the above 23 were Males and 20 Females.

JUNE.

Stillborn	2	2																	1	1			
Small Pox	2		2											2									
Measles	2		2												1				1				
Scarlet Fever	5			5									1		1	3							
Convulsions	3		3												1				1	1			
Hydrocephalus	3		2	1										1						1			
Apoplexy	1							1															
Delirium Tremens	1							1											1				
Disease of the Spine	2			1						1										1	1		
Hooping Cough	2		2												1					1			
Croup	1			1										1									
Inflammation of Lungs	4		2	1				1								1	2						1
Consumption	7		1		1			3	2				1		1		1	2		1	1		
Disease of Heart	1								1									1					
Apthæ	1		1												1								
Infantile Cholera	12		12										1	3	4								2
Dropsy	1							1											1				
Senile Debility	3									1	2		1	1									1
Infantile Debility	4		4														2		1	1			
Accidental	1								1										1				
Not known	1										1												1
Total	59	2	31	9	1			6	4	1	2	2	1	1	3	2	8	12	8	8	6	6	5

Of the above 28 were Males and 31 Females.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Mount Royal Cemetery, July and August, 1860.

JULY.

Disease.	No.	Still Born.	Under 2 years.	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Over 70 years.	Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Country.
Stillborn.....	5	5															2	1	1	1	1		
Small Pox.....	3		2				1												1		1	1	
Measles.....	1		1																			1	
Scarlet Fever.....	5		2	3														4			1		
Fever.....	1							1															1
Convulsions.....	1		1															1					
Hydrocephalus.....	1		1																		1		
Croup.....	1		1																		1		
Inflammation of Lungs..	1								1												1		
Consumption.....	2		1				1												2				
Dentition.....	5		5															1	1	2		1	
Diarrhœa.....	1								1											1			
Dysentery.....	1								1					1									
Inflammation of Bowels..	1		1													1							
Canadian Cholera.....	2						1	1									1	1					
Infantile Cholera.....	13		13												1		4	2	3			1	2
Disease of the Liver....	2								2											1	1		
Dropsy.....	1											1								1			
Tumour.....	1						1												1				
Senile Debility.....	3										1	2					1					1	1
Infantile ".....	7		7														2	1	2			2	
Accidental.....	3		1		1												1	1					1
Not known.....	1								1									1					
Total.....	62	5	33	6	1	4	3	4	2	1	3	1		1	1	1	10	13	14	5	5	7	5

Of the above 30 were Males and 32 Females.

AUGUST.

Stillborn.....	4	4															2			1	1		
Small Pox.....	1		1															1					
Scarlet Fever.....	3		2	1														3					
Fever.....	1		1																			1	
Convulsions.....	4		4													1	2			1			
Hydrocephalus.....	6		5	1										1			4	1					
Epilepsy.....	1								1								1						
Apoplexy.....	2								2								1			1			
Hooping Cough.....	1		1															1					
Croup.....	1		1																				1
Inflammation of Lungs..	4		1	3														1			2		1
Consumption.....	13		2	2	2		1	2	3	1				1			1	3		3	2	1	2
Disease of the Heart....	2						1		1												1		1
Dentition.....	1		1																	1			
Aphthæ.....	1		1																		1		
Asthma.....	1							1												1			
Inflammation of Bowels..	1							1								1							
Diarrhœa.....	2						1		1											1	1		
Infantile Cholera.....	3		3														1						1
Disease of Liver.....	2						1				1									1	1		
Senile Debility.....	4										2	2								1			2
Infantile Debility.....	5		5														2				1		1
Accidental.....	6		1			3		1										1			1		4
Not known.....	1		1																	1			
Total.....	70	4	28	9	2	5	4	5	6	3	3	1		2		2	14	11	6	12	6	6	11

Of the above 43 were Males and 27 Females.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Roman Catholic Cemetery, May and June, 1860.

MAY.

Disease.	No.	Under 1 mon.	Under 2 years	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years	30 to 40 years	40 to 50 years	50 to 60 years	60 to 70 years	Over 70 years	Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Scours Grises.	Country.
Small Pox.....	10	..	10	..	..	..	..	..	..	..	..	..	..	1	..	..	2	1	..	2	2	1	..	1
Measles.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Scarlet Fever.....	4	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1
Fever.....	5	..	4	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	1	..	1	..	..	1
Convulsions.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Congestion of Brain..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Tetanus.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Paralysis.....	3	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	1	..	..	..
Hooping Cough.....	6	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..	3
Croup.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Inflammation of Lungs	7	..	..	1	1	1	2	2	..	1	..	3	..	..	..	1	1	1	..	..	..	..	..	1
Consumption.....	21	..	..	1	4	8	5	2	1	..	..	2	..	..	1	1	2	2	4	3	1	1	4	4
Disease of the Heart.	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Dentition.....	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	3	1	..	..	1
Worms.....	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Disease of Liver.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Dropsy.....	4	..	1	..	..	1	1	1	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	1
Childbirth.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Gravel.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Cancer.....	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Rheumatism.....	2	..	..	1	..	..	1	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
Abscess.....	2	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
Suicide.....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Senile Debility.....	10	..	..	..	..	..	..	1	3	6	..	2	..	..	..	..	2	1	1	1	1	2	..	1
Infantile Debility....	126	67	59	..	..	..	..	..	..	..	..	..	..	..	..	..	11	6	5	11	7	8	63	16
Total.....	221	67	75	23	3	1	8	10	11	8	8	7	..	10	..	1	30	13	12	24	21	16	63	31

Of the above 102 were Males and 119 Females.

JUNE.

Small Pox.....	13	..	3	10	..	..	..	..	..	..	..	..	..	..	..	1	6	..	..	..	3	1	..	2
Measles.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Scarlet Fever.....	7	..	6	1	..	..	..	..	..	..	..	..	..	1	..	..	1	2	1	2	..	..	..	..
Fever.....	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Convulsions.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Inflammation of Brain	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Apoplexy.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Paralysis.....	4	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	..
Hooping Cough.....	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Croup.....	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2
Inflammation Lungs.	2	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Consumption.....	13	..	..	3	4	1	3	2	..	2	..	..	..	..	..	1	1	2	1	1	3	..	..	2
Disease of Heart.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Dentition.....	15	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	..	1	1	4	..	3
Diarrhoea.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Disease of Liver.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Dropsy.....	4	..	1	..	..	..	1	1	1	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..
Childbirth.....	3	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1
Inflammation.....	2	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Cancer.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Charbon.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Hæmorrhage.....	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Accidental.....	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
Senile Debility.....	9	..	..	..	..	..	..	1	..	8	..	1	..	1	..	1	..	1	5	1	..	..	..	..
Infantile Debility....	198	64	134	1	4	20	26	9	20	31	15	45	27
Total.....	289	64	157	21	2	4	9	4	9	7	3	9	..	6	1	7	32	36	19	35	45	24	45	40	

Of the above 138 were Males and 151 Females.

STATISTICS OF MORTALITY IN THE CITY OF MONTREAL.

From Returns of Interments in the Roman Catholic Cemetery, July and August, 1860.

JULY.

Disease.	No.	Under 1 mon.	Under 2 years.	2 to 8 years.	8 to 15 years.	15 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Over 70 years.	Not known.	Centre.	West.	East.	St. Antoine.	St. Anns.	St. Lawrence.	St. Louis.	St. James.	St. Mary.	Securs Grises.	Country.
Small Pox.....	17	..	6	11	..	..	..	..	..	..	..	..	..	1	..	..	1	6	..	2	4	..	..	3
Scarlet Fever.....	10	..	..	9	1	..	..	..	..	..	..	..	..	1	..	..	3	3	4	2	..	..	..	..
Fever.....	11	..	..	4	2	2	1	1	1	..	..	..	..	3	..	..	1	3	..	2	..	1	..	1
Convulsions.....	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
Hydrocephalus.....	2	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..
Apoplexy.....	3	..	..	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
Paralysis.....	4	..	..	..	..	..	..	2	..	1	..	1	..	1	..	..	1	..	..	1	1	..	..	..
Delirium Tremens...	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Hooping Cough.....	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Inflammation Lungs.	6	..	..	1	..	1	1	1	..	2	1	..	..	1	1	..	2	1	..	..	1	..	..	..
Consumption.....	18	..	..	..	..	2	9	2	2	2	1	..	..	4	..	..	1	2	..	4	4	..	..	3
Asthma.....	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Disease of Heart...	3	..	..	..	..	..	2	..	..	1	..	..	..	1	..	..	1	..	..	1	..	..	..	..
Dentition.....	30	30	..	..	..	..	..	..	..	..	..	..	..	1	..	..	5	2	2	2	5	10	..	4
Diarrhœa.....	10	5	1	..	..	..	..	..	1	2	1	..	..	1	..	..	1	3	2	1	2	..	..	..
Cholera.....	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Dropsy.....	3	..	..	..	..	..	..	..	1	1	1	..	..	2	..	..	..	..	1	..	..	..	..	..
Childbirth.....	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
Cancer.....	3	..	..	..	..	1	1	..	1	..	..	1	..	1	..	..	..	..	..	1	..	1	..	..
Charbon.....	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Gangrene.....	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..
Abcess.....	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Rheumatism.....	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Sudden Death.....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
After an Operation..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Accidental.....	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Suicide.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Senile Debility.....	12	..	..	..	..	..	..	..	1	1	10	..	..	1	1	2	1	1	..	2	1	2	1	1
Infantile Debility....	210	83	126	1	..	..	..	..	..	..	..	..	..	1	..	2	23	18	14	19	26	19	57	31
Total.....	359	83	169	29	4	4	13	15	9	11	8	14	..	22	2	5	48	34	23	37	47	33	58	50

Of the above 185 were Males and 174 Females.

AUGUST.

Small Pox.....	18	..	2	15	..	1	..	..	..	..	..	..	..	1	..	..	1	4	..	1	5	3	1	2
Measles.....	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	3	..	1
Fever.....	7	..	1	3	1	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
Convulsions.....	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..
Hydrocephalus.....	2	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..
Paralysis.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Hooping Cough.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Croup.....	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..
Inflammation Lungs.	6	..	2	1	1	..	1	1	..	1	..	..	..	1	..	..	1	1	..	..	1	..	..	2
Consumption.....	19	..	1	1	5	4	3	2	3	..	..	..	..	5	..	..	3	2	2	2	2	..	..	1
Asthma.....	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Disease Heart.....	2	..	..	..	..	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
Dentition.....	20	19	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	6	3	..	5	2	..	2
Diarrhœa.....	5	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	1	..	..
Dysentery.....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Disease of Liver.....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Childbirth.....	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..
Cancer.....	2	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..
Erysipelas.....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Sudden Death.....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
After an Operation..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Accidental.....	5	..	..	2	..	1	1	1	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..	2
Senile Debility.....	5	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	1	..	2	..	..	..	2
Infantile Debility....	157	56	101	..	..	..	..	..	..	..	..	..	..	1	1	16	13	6	19	18	15	54	13	..
Total.....	265	56	126	30	8	8	9	8	7	4	3	6	..	10	2	1	27	30	15	29	42	28	55	26

Of the above 131 were Males and 134 Females.

BOOKS, &c., RECEIVED.

- REPORT OF THE MEDICAL SUPERINTENDENT OF THE PROVINCIAL LUNATIC ASYLUM, Toronto, for the year 1860. Quebec, pp. 13.
- REPORT OF THE BOARD OF INSPECTORS OF ASYLUMS, PRISONS, &c., for the year 1860. Quebec, pp. 176.
- THE PHYSICIANS' POCKET, DOSE, AND SYMPTOM BOOK, containing the doses, and uses of the principal articles of the Materia Medica, &c., by Joseph H. Wythes, A. M., M. D. 3rd edition. Philadelphia: Lindsay & Blakiston. Montreal: Dawson & Son. 12mo., pp. 244. Price .
- THE PHYSICIANS' VISITING LIST, DAY BOOK, AND MEMORANDA. Philadelphia: Lindsay & Blakiston. Montreal: Dawson & Son. Price from 50 cents to \$1.25.
- THE NEW SYDENHAM SOCIETY'S YEAR BOOK OF MEDICINE, SURGERY, AND THE ALLIED SCIENCES FOR 1860. London, 1861, pp. 578.
- A TREATISE ON DISEASES OF THE JOINTS, by Richard Barwell, F.R.C.S., &c. Philadelphia: Blanchard & Lea. Montreal: Dawson & Son. 8vo., pp. 463. Price \$3.00.
- THE MORBID EFFECTS OF THE RETENTION IN THE BLOOD OF THE ELEMENTS OF THE URINARY SECRETION.—Fiske Fund Prize Essay, by William Wallace Morland, M.D. Philadelphia: Blanchard & Lea. Montreal: Dawson & Son. 8vo., pp. 83. Price 75 cents.
- THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES, including the results of recent investigations upon the subject, by Freeman G. Bumstead, M.D., &c., with illustrations on wood. Philadelphia: Blanchard & Lea. Montreal: Dawson & Son. 8vo., pp. 686. Price \$3.75.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

- On the 24th August, in the village of Napier, the wife of W. Henderson, M.D., of a daughter.
- At Stratford, county of Perth, on the 20th August, the wife of P. Shaver, M.D., of a son.
- At Orillia, on the 14th August, the wife of G. H. Corbett, M.D., of a daughter.
- In Montreal, on the 3rd instant, the wife of G. E. Fenwick, M.D., of a daughter.
- In Almonte, Ramsay, on the 4th instant, the wife of Dr. Robert Howden, of a daughter.

MARRIAGE.

- On the 4th instant, at the Parish Church of this city, by the Very Rev. Bishop Taché, assisted by the Rev. Mr. Papin, Curate, C. B. DeBoucherville, Esq., M.D., M.P.P., of Boucherville, to Susanne Elizabeth, youngest daughter of the late Robert Lester Morrogh, Esq., formerly Prothonotary of this city.
- At Rivière du Loup (en haut), on the 26th ult., by the Rev. Mr. Boucher, Rector of the Parish, Antoine Lemaitre Augé, Esq., marchand, to Maria Anna, only daughter of the late L. H. Gauvreau, M.D. and M.P.P.

DEATHS.

At St. Michael's Cottage, Quebec, on Thursday, 29th August, Joseph Morrin, M.D., in the 67th year of his age. The late Dr. Morrin's faithful services to the profession of which he was one of the most distinguished ornaments, demand more than this mere passing notice as a tribute to his memory, and we will endeavour to discharge this almost filial duty in our next.

At Nicolet, on the 4th August, Emma, infant daughter of Dr. E. D. Fontaine, aged 4½ months.

On the 28th August, Dr. Delinelle, of St. Urbain, county of Chateauguay. Dr. D. was out shooting with a friend. The branches of some shrubs caught the trigger of his gun, the barrel of which was carelessly held under his arm. It became discharged, its contents lodging in the chest, causing his death in one hour. He leaves a wife and three young children to mourn his loss. He was much esteemed by those acquainted with him.

In Montreal, on the 23rd August, aged 73 years, Rebecca Ferguson, relict of the late Jacob Hall, Esq., and mother of Archibald Hall, M.D., of this city.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT MONTREAL IN AUGUST, 1861.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE							THERMOMETER.		WIND.		RAIN AND SNOW.			GENERAL OBSERVATIONS.
	Barometer corrected to 32° F.	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS.		Maximum read at 9, P. M.	Minimum read at 7, A. M.	Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricanes.	Inch. of rain melted snow read at 10 A.M.	Inch. of rain melted snow.			
						Amount.	General description.								
1	29.852	72.3	66.5	0.100	0.10	0.10	Cu. St.	79.2	61.0	N.	0.10	0.32		Faint Auroral light at 10 p.m.	
2	29.782	76.0	66.3	0.08	0.08	0.08	Cu. St.	82.2	65.3	N.W.	1.0	0.01		[4.50 p.m.]	
3	29.858	76.5	62.9	0.69	0.55	0.55	0.0	81.6	70.2	W.N.W.	1.3	0.01		Thunderstorm from S.W. at	
4	29.746	76.2	67.8	0.80	0.75	0.75	0.0	82.0	65.0	S.W.	1.6	0.03		Thunderstorm W. at 5.30 p.m.	
5	29.688	75.4	65.9	0.76	0.55	0.55	0.0	82.4	67.2	N.W.	2.0	0.08			
6	29.847	66.5	52.6	0.63	0.55	0.55	1.0	70.7	60.6	W.N.W.	1.3	0.15			
7	30.005	67.6	55.1	0.63	0.55	0.55	6.0	75.0	56.9	S.W.	1.3			Faint Auroral streamers.	
8	29.993	66.9	55.6	0.69	0.55	0.55	2.0	75.0	62.5	N.N.E.	0.6			[at 2.30 p.m.]	
9	29.844	68.4	56.0	0.67	0.55	0.55	1.0	75.0	56.9	E.	2.0			Thunderstorm from W.S.W.	
10	29.615	71.6	60.3	0.74	0.55	0.55	0.0	78.5	62.8	S.W.	3.0			Faint Auroral light.	
11	29.870	66.3	56.6	0.73	0.55	0.55	2.3	72.8	66.0	W.N.W.	1.3	0.57		Circles round sun 11 a.m.	
12	29.973	63.1	52.4	0.72	0.55	0.55	3.0	68.2	55.5	N.E.	2.6			Solar Halo a.m.	
13	30.063	64.0	52.9	0.71	0.55	0.55	8.0	71.5	55.8	N.E.	3.3				
14	30.147	62.4	51.1	0.70	0.40	0.40	5.3	70.9	53.8	N.N.E.	2.0				
15	30.165	69.1	57.7	0.71	0.30	0.30	0.3	76.6	56.0	S.W.	1.6				
16	30.116	70.2	58.4	0.69	0.55	0.55	4.0	78.2	56.0	S.W.	1.3				
17	30.012	72.1	61.5	0.74	0.50	0.50	9.6	78.6	63.4	W.S.W.	2.3	Inap.	Inap.	Distant Lightning.	
18	30.064	70.7	61.0	0.75	0.55	0.55	7.0	77.0	64.2	W.S.W.	2.0	Inap.	Inap.		
19	30.182	63.7	56.8	0.80	0.55	0.55	2.3	70.8	50.5	N.E.	1.6				
20	30.246	63.6	56.5	0.80	0.55	0.55	2.6	71.8	52.2	E.S.E.	1.0				
21	30.044	67.2	60.8	0.84	0.55	0.55	10.0	71.8	59.0	S.S.W.	1.0				
22	29.752	64.9	59.0	0.86	0.70	0.70	6.3	70.6	61.4	S.W.	2.0	0.92			
23	29.940	65.1	56.3	0.77	0.40	0.40	0.6	72.0	54.5	S.W.	2.3	0.52			
24	30.023	67.9	59.6	0.77	0.55	0.55	3.3	77.2	54.9	S.W.	2.0			Distant Thunder.	
25	30.106	69.6	61.5	0.80	0.50	0.50	4.3	77.5	60.0	W.S.W.	1.0	0.35		Imperfect Lunar Halo.	
26	30.081	69.7	64.3	0.90	0.55	0.55	3.6	78.6	61.8	S.W.	1.0				
27	30.002	70.4	65.4	0.82	0.55	0.55	9.6	75.0	65.2	S.W.	1.0	0.24		Thunderstorm 7.15 p.m.	
28	29.949	72.2	66.2	0.87	0.55	0.55	6.6	78.5	64.8	S.W.	1.3	Inap.	Inap.	Lightning S. at evening.	
29	29.849	72.1	67.7	0.90	0.55	0.55	4.0	79.4	64.9	W.	1.6	0.17		Thunderstorm from S.W. at	
30	29.850	66.1	61.0	0.83	0.50	0.50	1.3	73.3	57.2	W.N.W.	1.6			1.30 a.m.	
31	30.010	60.8	55.5	0.89	0.55	0.55	1.6	66.7	53.8	W.	2.0	0.03			
S's															
M's	29.957	68.78	59.72	0.775				75.43	59.65						3.36

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT TORONTO IN AUGUST, 1861.

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE					THERMOMETER.		WIND.		RAIN AND SNOW in 24 hours, ending at 6 A.M. of next day.			GENERAL REMARKS.		
	Barometer reduced to 32° F. H.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	Max in read at 9, A.M. of next day.	Min in read at 2, P.M. of same day.	Dew Point at 3, P.M.	General Direction.	Mean Velocity in Miles per hour.	Rain.	Snow.	Total rain and melted snow.		Ozone in 24 hours ending 6 A.M. of next day.	
															Inches.	Inch.	Inch.
1	29.5525	71.63	83	4	78.2	66.4	63.5	S. 55 E.	2 23				0.16	Dense fog during evening.	
2	4735	72.05	82	2	81.5	62.4	66.5	N. N.	72 E.	4.37				Lightning in horizon.	
3	6030	74.20	78	1	80.0	67.5	67.0	N. N.	82 E.	6.07				Nos. of Shoot'g Stars obser'd.	
4	Sunday				85.2	68.2		N. N.	37 W.	5.80	.005			Incessant Light'g at night.	
5	4840	73.17	78	4	82.0	67.0	67.5	N. N.	84 W.	3.26				Sultry dense fog at sunset.	
6	5620	68.99	78	6	76.0	61.8	64.0	N. N.	80 E.	1.84	.013				
7	6232	62.65	90	10	65.3	61.0	61.0	N. N.	56 E.	4.95					
8	6117	65.12	77	10	69.5	61.0	61.0	N. N.	74 E.	4.47	.115			Large Meteor at 9.21 p.m. in S. W. burst throwing out sparks.	
9	4885	66.57	89	8	71.3	64.0	66.0	N. N.	63 E.	3.29	.015				
10	4343	69.15	72	7	83.4	54.4	68.0	N. N.	29 W.	2.37					
11	Sunday				63.2	54.4		N. N.	68 E.	2.55					
12	5900	67.92	84	10	62.4	57.8	55.0	N. N.	43 E.	10.01	.760				
13	6392	60.77	80	7	69.0	55.0	59.5	N. N.	54 E.	3.09				Auroral light and faint streamers.	
14	8545	59.40	72	5	70.6	53.4	57.0	N. N.	7 W.	1.39					
15	8415	61.35	72	0	72.0	47.0	56.0	N. N.	25 E.	1.02					
16	7272	64.70	74	6	74.2	53.4	61.0	N. N.	6 E.	3.21					
17	7213	66.18	78	6	77.0	54.0	67.0	N. N.	35 W.	1.83					
18	Sunday				75.3	53.0		N. N.	30 W.	2.58	Inap.	Inap.			
19	7905	64.13	78	6	70.6	57.2	58.0	N. N.	78 E.	2.60					
20	8545	64.23	71	7	70.2	58.4	65.0	N. N.	89 E.	3.24				Solar Halo at 2 p.m.	
21	6202	70.43	83	10	80.0	58.5	60.0	N. N.	49 W.	7.08	.675			Thunder Storm, Solar Halo.	
22	8710	61.70	81	4	70.8	50.5	70.8	N. N.	44 W.	9.92	Inap.			Faint Auroral light.	
23	7407	63.15	66	1	75.4	51.2	53.0	N. N.	75 W.	5.21				Lunar Corona.	
24	7882	65.18	74	2	75.5	52.4	63.0	N. N.	41 W.	1.85					
25	Sunday				75.5	54.5		N. N.	50 E.	1.60	.115			Solar Halo during forenoon.	
26	6987	67.92	82	9	76.6	62.0	61.5	N. N.	21 W.	1.98	.605			Showers during afternoon.	
27	6312	63.03	81	7	75.8	63.8	66.5	N. N.	23 W.	7.00	.083			Thunder Storm dur'g even'g.	
28	6312	66.07	85	6	74.8	58.4	63.0	N. N.	23 W.	2.33	.165				
29	6087	63.27	81	4	74.2	59.8	65.0	N. N.	75 W.	2.38	.035			Thunder Storm during afternoon.	
30	6592	60.45	67	2	70.0	51.0	54.0	N. N.	40 W.	10.92					
31	7840	59.40	63	4	69.8	49.8	52.0	N. N.	31 W.	3.64					
S's															2.953
M's	29.6531	65.43	78	5	74.30	58.15	61.75	N. 8 E.	4.21						