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[No. 9.

ART. XXX.—CONTRIBUTIONS TO CLINICAL MEDICINE.

By J. CRAWFORD, M.D.,

Lecturer on Clinical Medicine, McGill College.

Read at the Medico Chirurgical Society, 4th Dec., 1847.

*Idiopathic Pneumothorax, following diffuse Inflammation of the Arm—Death.*

The patient, D. S., accidentally received a punctured wound near the right wrist joint, by a chisel, on the 19th October, 1847; shortly after which, his arm began to swell, and became very painful. He was taken care of for about a week by a professional gentleman, when it was thought advisable to send him to the Montreal General Hospital on the 27th, where he was placed under the care of Dr. Campbell. His arm being very painful, and much swelled, it was freely scarified, and he had tepid saturnine lotions to it. He was ordered calomel, opium, and tartarized antimony, in repeated doses. He appeared to go on in a satisfactory manner, and became my patient on the 1st November. His arm, fore-arm, and hand, were then much swelled, the cutaneous surface slightly red, and the limb was so painful that he could scarcely bear to have it moved. The wound at the carpal extremity of the ulna, continued to discharge pus freely; there was considerable constitutional depression, his pulse rapid, small and weak, tongue foul, with some thirst. The tartarized antimony was now discontinued, and wine and quinine ordered. The tincture of iodine was painted over the arm.

On the 4th, he was reported to have been gradually and daily improving for the last three days until to-day, when he was suddenly seized with dyspnoea, which obliged him to have his head and shoulders elevated. The upper part of the chest was heaved up with some difficulty, the lower portion apparently being fixed, and bound down, the diaphragm and abdominal muscles acting strongly to aid the respiration. His countenance indicated great respiratory difficulty, and the bloated and purple colour showed that serious obstruction existed to the transmission of the blood through the lungs. There was a slight cough, but nothing of any consequence. The arm appeared rather better; the discharge continuing, and being laudable pus, pulse rapid and weak.

The stethoscope showed diminished respiratory mur-

mur of the right side, as if the murmur were distant while it was very distinct near the spine, this side giving a clear sound, on percussion, but nothing remarkable or beyond what is normal. The respiratory murmur loud and bronchial in the left lung generally, while percussion gave a dull sound. The patient, however, could not bear a very minute exploration; it was apprehended that a purulent metastasis had taken place. The clearness of sound on percussion, gave the idea of an emphysematous condition of a portion of the right lung, although the cough was not sufficiently severe to give rise to this state, or to account for any other recent lesion. It was merely the absence of dulness on percussion that attracted attention, and which could not satisfactorily be explained.

He was ordered mist. camphoræ ʒi., ammoniæ carbonat. gr. v., tinct. opii gr. xx., bis. Antimon. tartar. gr. 1-16, omne 3 ter. hora, a large blister to the chest. Next day his respiration was rather more laborious, and he had passed a bad night without sleep, face purple, pulse 90, profuse cold perspirations, respiratory murmur more indistinct in the right lung, the blistered surface preventing percussion, respiration in left lung loud and bronchial, impossible to examine minutely because of the fatigue and dyspnoea it induced. Ordered to continue the medicines, and to have the blistered surface dressed with mercurial ointment, and to have a blister put between the scapulæ.

6th. His breathing, although still laborious, was apparently easier, the lower portion of the chest motionless; his countenance more natural colour, voice better, pulse 100, pretty firm, and of tolerable volume; cold perspirations continue. He was reported to have had a better night, from an anodyne; the respiration in the left lung, accompanied by a sibilant rale, still bronchial. In the right lung it is very indistinct, except near the spine. He lay with his head and shoulders elevated. Directed to continue his medicines.

7th. He was reported to have passed an easier night, and to have had some sleep. His respiration appeared somewhat easier; his tongue parched, and covered with brown fur; some thirst, pulse 80, natural volume. Says he feels better. To continue.

10th. Since last report there was not much change.

The dyspnœa had not increased; his colour appeared somewhat more natural; pulse 84, and of good volume; he moaned much in his sleep, and was frequently bathed in cold perspirations; very trifling cough, and no expectoration. The stethoscope indications much the same.

He passed a bad night; his countenance looked more distressed, pulse 130, moans a good deal, yet says he feels easier. *Has been mostly lying on his left side since yesterday.*

He died during the following night.

The autopsy was performed in presence of Dr. Campbell, by Dr. Long, with great care. The figure of the chest was natural; there was no bulging out of the ribs, or intercostal spaces. When the right cavity was opened, the lung was found collapsed or compressed into the smallest possible size, lying along the spine: it appeared about the size of the closed hand, and did not contain any air. There was no fluid nor any other visible contents in the cavity, nor did any air issue from it perceptible to the senses. The left lung did not collapse, as usual, it appeared mottled, and of a bright red colour. It adhered, by a considerable extent of surface, to the pleura costalis, in consequence of a recent effusion of lymph, which was easily broken down. Its substance appeared somewhat engorged with bright blood; two ounces of serum were found in this cavity. The lungs and bronchi were removed with great care, and inflated by means of a blowpipe; they both filled well, and, although they were rendered emphysematous, not the slightest trace of rent could be discovered, or means by which air could have escaped into the pleural cavity. The right lung was in a perfect state of health, with the exception of a few granular bodies on its substance. The heart was healthy, and in situ. The liver healthy, was pressed down into the abdominal cavity several inches below its normal situation. The veins of the injured arm were examined minutely, and found healthy. The wound caused by the chisel was found to have communicated with the joint, and the cartilages were becoming absorbed in two or three places.

#### REMARKS.

It would appear that death was caused in this instance by the unfortunate coincidence of both lungs being simultaneously involved—the right being rendered wholly useless by the pressure of the air in that pleural cavity, while the function of the left was seriously inter-

rupted in consequence of its congested state, and the adhesions it had formed with the costal pleura. Pneumothorax as an idiopathic affection, independent of any lesion of the pleura, or of the decomposition of effused fluids into the chest, or of transudation, *post mortem*, is an extremely rare affection, and by some deemed very problematical, if not denied. On the present occasion, its existence for several days before death, and its independence of any of the before-mentioned causes, is unquestionable. Collections of air have occasionally been met with in the cavity of the peritonæum (tyimpanitis abdominalis), which, in the majority of instances, were traceable to perforation of the intestine. On some rare occasions, however, no manifest cause could be assigned, and a few authors have ventured the opinion, that serous membranes are capable of secreting gas, like the bladder of the fish; and this view we readily adopted, on the present occasion, as the only probable explanation of this rare affection. In like manner, we must explain the gaseous formation which takes place in the uterus and bladder. We know that enormous quantities of gas are occasionally rapidly generated in the intestines in cases of hysteria, fever, peritonitis, and some other affections, which we cannot attribute to fermentation, and we even see these to be as rapidly absorbed or removed without passing by the more obvious outlets; but these subjects are still in obscurity. A question here suggests itself—Did the two very dissimilar exhalations from the pleura originate in one and the same cause? and are they not both referrible to a low inflammatory condition of this membrane? If so, we can understand the more frequent complication of pneumothorax and empyema to depend both on a vital action, and not, as is generally supposed, the former to be the consequence of decomposition of the effused fluid.

It is somewhat remarkable, that towards the termination of the case, the patient lay on the *left* side, thereby increasing the impediment to respiration, by pressing on the side by which the function was principally performed. Nor can we explain the circumstance by supposing that, by confining the action of the side, he thereby avoided pain, as he never appeared to suffer any. The case was, throughout, obscure, as it is also of extremely rare occurrence.

ART. XXXI.—CASE OF EXTENSIVE RUPTURE OF THE UTERUS, TERMINATING FATALLY ON THE 4TH DAY AFTER DELIVERY.

By C. SMALLWOOD, M. D., St. Martin.

The following case of Rupture of the Uterus came under my care on the 29th May last. The patient, æt 28, of short stature and small pelvis—in labour of her fourth child, whom I attended in a previous confinement; and although it was tedious, she did well. A (*sage femme*) was in attendance, who stated her to have been in labour upwards of 24 hours—that an attempt to turn had been made by a practitioner, eight hours previous to my arrival, who had left, with directions to send for me; but being absent, I did not see her until seven, P. M., when I found her in bed, lying on her back, with her arms extended.—Complains of *no pain*, the pains having ceased, about noon—*countenance* anxious—*eyes* sunk—*skin* covered with a cold sweat—perfectly sensible, but answers inquiries in a whisper. *Respiration* laborious—*Pulse* sharp and frequent,—*Tongue* moist,—*Vomiting* occasionally,—passed *no urine* since morning. These symptoms, with the *deformed* appearance of the abdomen, even under the bed-clothes, led me at once to suspect the serious nature of the case. Upon examination I discovered the buttocks of the child, with the lower extremities, to have escaped into the abdomen, which I felt distinctly through the abdominal parietes. I could also distinctly feel the contracted uterus encircling the other part of the body of the fœtus. The fœtal circulation had ceased.

On examination, *per vaginam*, the os uteri I found dilated, the vertex presenting naturally, and at the superior outlet of the pelvis, (the midwife told me the head had receded since the cessation of pain) the fœtal circulation had entirely ceased.

I could not do otherwise than look upon the case as a fatal one, taking into consideration the length of time that had elapsed; the state of collapse in which I found her, and the extensive nature of the rupture, from which I decided to wait, at least, a few hours, and if possible to recruit the sinking powers of life; or, should nature, on the other hand, become more exhausted, not to interfere to hasten the fast ebbing stream of life to a fatal termination.

I gave her gr. opii gr. ii., and ordered her wine, and ammonia, at intervals, with directions, that should she rally, they were immediately to let me know; accordingly I was summoned on the following morning,

when I found her somewhat changed for the better.—The *respiration* was free—*pulse* quick but soft—*tongue* moist—has not vomited since midnight—passed *no urine*—felt no pain, but great tenderness over the belly—has not slept.

The case, to me, appeared to offer but two methods: Craniotomy, or the Cæsarean operation. I decided upon the former, resolving, if I failed in delivery, *per vias naturales*, to have recourse to the latter, in which I was seconded by her earnest request, and the solicitations of her friends.

I proceeded at once to perforate the head, and by means of the blunt hook, I succeeded in bringing it down. Traction—brought on a sensation of faintness, and I was interrupted, from that cause, several times during the delivery.

After having divided the umbilicus, I introduced my hand into the uterus, to ascertain, 1st.—the extent and nature of the injury, and 2nd.—to prevent the descent of any of the intestine, becoming enclosed in the contracting uterus.

The rupture was situated transversely; or, from side to side, at the fundus and anterior part thereof, and was at least seven inches in length, as I could pass my extended hand through it—the opening in the peritoneum appeared not so extensive as in the muscular texture of the uterus; the placenta was attached somewhat posteriorly, which I proceeded to remove, the uterus closing upon it as it was withdrawn;—there was but slight hæmorrhage, with some coagula and a watery sanguinous fluid of a dark colour.

The fœtus was a female of ordinary size; it presented, a little above the hips a dark coloured circle, or line, made, as it were, by a ligature, caused, without doubt, by the contracting powers of the uterus.

The patient rallied considerably for three days after the delivery; there was secretion both of lochia and milk, but she sunk suddenly on the fourth day, and expired—a post mortem examination was not permitted.

This is the first case of rupture of the uterus that has come under my observation, either in England or in this country; and I am inclined to think it is happily of rare occurrence—at least so far as my own experience goes, during a period of 13 or 14 years' practice in the country, and in upwards of three thousand cases.

I see by the Report of the Royal Maternity Charity, that the average is 1 in 4,429 cases, Burns gives the

average as 1 in 940 cases, which is an immense difference, the former seems to be more in accordance with my own experience.

St. Martin, Isle Jesus, Dec. 7, 1847.

ART. XXXII.—OBSERVATIONS ON METEOROLOGY.

By Mr. JUSTICE M'CORD.

Although no longer able to devote my attention to meteorological observations, I cannot but rejoice on observing the great degree of exactness bestowed on that branch of science by the contributors to your valuable Journal. In a short time we will be possessed of a continued series of observations, which will determine the actual mean temperature of the climate of this Province, and its maxima and minima.

This will be the first step towards the solution of that interesting question, whether our climate has changed since the first settlement of the country, and if so, in what degree? The result of my own observations led me to believe that the mean temperature had not altered materially, but that the extremes had; that is, that we are no longer exposed to such intense and continued periods of heat and cold. The truth or fallacy of this opinion can alone be tested by time and observation. With a view of facilitating this inquiry, and in hopes that others may follow my example, I have now the pleasure of placing before you and those interested in this investigation, a few tables, showing the maxima and minima of the past, partly derived from MSS. in my possession, and partly extracted from public journals. On some future occasion, should you think proper, I will send you some other tables bearing on this subject. When personally engaged in these researches, I was much disappointed on finding how very few observations, or even memoranda, were extant, on which reliance could be placed. Of those now sent you, tables 1 and 2 may be especially relied on; they are carefully compiled by me from the journals kept by the late René Boileau, Sen., Esq., of Chambly, a gentleman who devoted much attention, during a long life, to the study of Natural History, and particularly to climate. Table No. 3, is extracted from the *Quebec Herald* of 1790, now a very scarce work.

TABLE 1,

Showing the greatest Heat and Cold at the Basin of Chambly, in the District of Montreal, from Tables kept by the late René Boileau, Sen., Esquire.

Month.	1820.		1821.		1822.		1823.		1824.		1825.		1826.	
	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.	Greatest Heat.	Greatest Cold.
January,	27.50	-15.00	48.25	-20.87	42.12	-35.95	45.50	-26.50	42.50	-10.75	42.50	-17.50	48.65	-22.56
February,	47.75	-28.75	45.50	7.25	45.50	-11.50	44.75	-20.87	51.50	-47.75	47.75	-10.75	42.12	-27.62
March,	59.60	-11.87	48.25	7.00	59.75	-10.62	55.25	-11.25	55.25	-2.87	53.37	9.50	61.25	-10.60
April,	72.50	+12.87	68.00	+20.75	74.43	+20.75	69.93	+22.73	72.50	+27.62	75.50	+26.60	73.62	+15.50
May,	74.60	+54.50	79.25	+30.00	81.50	+49.50	84.87	+41.90	82.62	+42.93	83.48	+39.75	90.50	+35.25
June,	89.60	+59.50	87.12	+63.18	84.00	+65.75	86.35	+59.00	89.12	+60.50	89.12	+68.00	86.00	+68.25
July,	90.50	+70.25	86.56	+62.00	89.37	+66.87	88.25	+67.68	81.50	+68.90	82.50	+70.25	91.62	+73.40
August,	86.00	+65.00	88.25	+54.60	88.81	+66.50	84.20	+67.68	79.25	+65.75	85.10	+70.25	90.50	+67.25
September,	90.00	+29.75	80.00	+31.12	79.25	+50.90	81.18	+29.75	80.37	+44.95	81.18	+34.00	83.75	+49.25
October,	77.00	+24.75	67.68	+24.12	68.00	+25.25	73.62	+26.37	65.75	+25.25	63.50	+23.50	74.75	+27.50
November,	54.50	+ 8.37	52.15	- 5.00	53.37	+16.25	54.18	+11.75	43.81	+16.25	63.50	+15.35	58.75	+13.00
December,	40.00	-22.00	41.56	-19.00	45.50	- 1.40	45.50	- 6.25	44.15	- 1.62	46.62	-12.68	54.50	+16.00

TABLE 2,

Shewing the Days on which the Maxima and Minima occurred, extracted from Mr. Boileau's Tables, Chambly.

Year.	Day.	Max.	Day.	Min.
1820	4th July,	90.50	2d February,	-28.75
1821	14th August,	88.25	24th January,	-20.87
1822	2d July,	89.37	5th January,	-35.95
1823	{ 5th July,	88.25	7th January,	-26.50
	{ 10th July,			
1824	19th June,	89.12	5th February,	-23.12
1825	11th July,	92.50	30th January,	-17.50
1826	12th July,	91.61	1st February,	-27.62

TABLE 3.

Temperature observed at Quebec, 1790, showing an unusual continuance of Extreme Cold.

Monday,	8th February,	8 A.M.,	+ 8
		Noon,	+11
		5 P.M.,	-11
		Midnight,	-23.50
Tuesday,	9th "	11 A.M.,	-27
		7 "	-29
		2 P.M.,	-16
		5 "	-18
Wednesday,	10th "	11 "	-27
		1 A.M.,	-29
		7 "	-32
		2 P.M.,	-10
Thursday,	11th "	5 "	-13
		Midnight,	-20
		1 A.M.,	-22
		7 "	-25
Friday,	12th "	2 P.M.,	-5
		5 "	-7
		Midnight,	-11
		7 A.M.,	-12
Saturday,	13th "	Noon,	-3
		Midnight,	-3
		7 A.M.,	-7
		2 P.M.,	+11

Mem.—A corresponding week occurred in the year 1810, also at Quebec, but not quite so severe—from observations made on Cape Diamond.

January 11th	0 Zero.
12th	- 5
13th	+ 1
14th	-10
15th	-10
16th	-25
17th	-20
18th	-12

TABLE 4,

Showing the Extremes of Heat and Cold at Quebec, for Eleven Years, from 1800 to 1810 inclusive, from the Appendix to Smith's History of Canada.

Year.	Day.	Max.	Day.	Min.
1800	6th July,	96.00	29th January,	- 6.00
1801	31st July,	89.00	{ 4th January, } { 10th February, }	-10.00
1802	27th July,	86.00	6th February,	-20.00
1803	9th July,	97.00	4th January,	-18.00
1804	22d June,	90.00	21st January,	-22.00
1805	18th July,	91.00	5th January,	-20.00
1806	15th July,	85.00	{ 17th January, } { 6th February, }	- 8.00
1807	12th July,	96.00	26th January,	-20.00
1808	16th July,	96.00	16th January,	-13.00
1809	27th June,	92.00	14th January,	-26.00
1810	18th June,	90.00	20th January,	-26.00

TABLE 5,

Showing the Maxima and Minima at Montreal for Five Years—1836 to 1840, from my own Tables.

Year.	Max.	Min.
1836	90.00	-13.00
1837	90.00	-18.00
1838	90.00	-13.00
1839	89.00	-18.00
1840	91.00	-14.50

ART. XXXIII.—1. Report on a System of Public Elementary Instruction for Upper Canada. Montreal, 1847.

2. Special Report of the Measures which have been adopted for the Establishment of a Normal School; and for carrying into effect generally the Common School Act (for U. C.) of 9th Victoria, cap. 20; with an Appendix. Montreal, 1847.

3. Annual Report of Common Schools for Upper Canada for 1846. Montreal, 1847. By the Rev. Dr. RYERSON, Chief Superintendent of Schools for Upper Canada.

4. Letters on Elementary and Practical Education. To which is added a French Translation. Montreal, 1841. By CHARLES MONDELET, Esq.

5. Annual Report of Common Schools for Lower Canada for 1846. Montreal, 1847. By Dr. J. B. MELLEUR, Chief Superintendent of Education, Lower Canada.

Of all the objects which can engage the attention of the statesman, the philosopher, the philanthropist, or the Christian, there is not one of deeper interest or higher importance than that which is embraced in the above-mentioned five documents; therefore, whatever may be the diversity of opinion which unhappily prevails in this Province regarding the *modus operandi*, in the introduction of a system of *public Elementary Instruction*, every reflecting man must be prepared to acquiesce in the urgent policy and necessity of such a measure, and admit that *the* great initiatory step has at length been accomplished by *the Government and the Legislature*, and that the amount of practical success which shall be reaped, must henceforward depend on the cordial spirit with which *the people* shall co-operate in the great work.

Unfortunately for our noble Province, the rancour of party feeling, in conjunction with that curse of Canada, the ungenerous and uncalled-for war of races and sects, seems still destined to embarrass and retard for a time even the most unexceptionable attempts at improvement, be it either in our public or social organization. But we are not without hope that better days are in store for us; and we even trust that much will ere long be accomplished through the medium of the powerful agency of the system of popular education now in operation—though its value may yet, in some quarters, be ill understood or appreciated, and may for a time furnish a few heartless demagogues a fertile source of party strife. If, therefore, we shall, by our humble efforts in favour of the better understanding of so estimable an object, prove at all instrumental in accelerating “a consummation so devoutly to be wished,” we shall ever rejoice in the perhaps rather rash but disinterested patriotic step which we have been induced to volunteer in its behalf, at a rather peculiar crisis.\* We would, however, wish to observe, that in deprecating the mischievous workings of sheer party feeling, and the miserably undignified

\* It may be proper to state that the writer of this Essay is unconscious of any unworthy party feelings, and that he is equally free from any personal bias, being altogether unknown to the writers of the different documents which form the heading of this article.

and even unprincipled, opposition thereby frequently engendered to the best of public measures, we are not disposed to encroach upon or abridge the wholesome privilege of dispassionate, independent inquiry into the intrinsic merits of every public question, or to deny that much good is derived from these being viewed and examined with a critical eye and probing hand; and, in proof of this, it is our intention to avail ourselves of this very privilege, in the course of whatever observations we may be induced to make in the present article. It is of the vicious *primum mobile*, and consequent uncharitable temper, alone, betrayed by certain writers, that we complain; but, unconscious of being actuated by any such unworthy incentives, we trust that we shall so express ourselves as to escape without any very serious animadversions from our readers on that score.

Having premised thus much, we proceed to commence our remarks on the two leading documents at the head of this article, by observing, that though it is now 50 years since that great *questio vexata*, the creation of a public fund, "for, first, the establishment and support of a respectable *Grammar School* in each District," and, "in due process of time, of a *College or University*," was first mooted in Upper Canada, the final arrangements connected with neither of these imposing branches of a Provincial Educational System have yet been carried into permanent successful effect!—a fate not much to be wondered at, when we consider that it was making a beginning at the wrong end, in attempting to complete the ornamental superstructure of so vast and influential a national edifice, without, in the first instance, laying that necessary and natural, substantial foundation—a system of sound elementary instruction for the great body of the people.

This strange error or oversight, however, was at last discovered, and redeemed about 20 years afterwards, *i. e.*, in 1816, when the wants of the humbler classes of society demanding their legitimate share of attention, an Act was passed by the Provincial Parliament, for the establishment of COMMON SCHOOLS; and from that date to the present time, that estimable popular foundation has been gradually acquiring substantial depth and breadth, until it has at last happily assumed a degree of solidity and harmony, that, though still susceptible of very considerable improvement, will be found capable of supporting any ornamental superstructure, in the shape of *Grammar Schools* or *Colleges*, which the ensuing Parliament may choose to decide upon.

Did our circumscribed limits permit, we should be disposed to lay before our readers a preliminary connected sketch of the successive sifut attempts at legislation on this important branch of education; but that being out of our power, we rest content with observing, that the first really decisive step in the improvement of Common Schools in Upper Canada took place in 1841, when the outline of the present system was adopted by the Provincial Parliament; that a second was attempted in 1843—when the previous arrangements were considerably modified; and that the third and last took place in 1846, when other modifications were made, and incorporated in the revised Act then passed—and still in force—and to which we must beg to refer our readers

for details. The same want of space also precludes our giving anything like a condensed view of the leading features of the system which *has* at length been adopted, either from the Reports before us, or the different authors from whom the Superintendent so copiously quotes; and we do so with less hesitation, as, fortunately, the former has, very judiciously, been extensively circulated in every part of the Province. All that we can at present promise is a few unconnected extracts from the former—more in justice to the writer, than with any idea of criticising or elucidating the merits of the question—that we may thereby be afforded greater scope for the humble efforts which we intend to make, towards counteracting a few illiberal prejudices, and answering some unreasonable objections which have been raised against various parts of the now promising foundation of our great educational edifice,—whether arising, on the one hand, from a sweeping *political* distrust of the principal workman employed, or, on the other, from baseless national prejudice against a few of the most useful materials, because, forsooth, they happen to be of *foreign* origin.

It is unfortunate for the Reverend and certainly talented author of the two Reports referred to, that he has long occupied no inconsiderable space, as a public writer, in the arena of political, sectarian, and even educational controversy; but, however that may have been, he having been at length selected to fill a most important *experimental* public office, aiming at the furtherance of a transcendantly great and good object, and the appointment being in every respect in keeping with the character of his sacred calling, as a preacher of the Gospel, it behoved even his bitterest opponents to suspend their warfare for a season, and give him a fair trial, before they made any further attempt to condemn either him or his labours. But, far from such having been the case, every casual opportunity seems to have been eagerly seized upon to lower his standing in public estimation, as well as to detract from the value or merit of his undeniably zealous exertions in behalf of the important matters committed to his investigation. Nothing daunted, however, the Reverend Gentleman appears to have held on "the even tenor of his way" unmoved, or, at most, to have been content with an occasional ejaculation of—"Strike, but hear me," until he had an opportunity of, in some degree, defending himself, on submitting unreservedly to the government and the people, the result of his unwearied investigations in various countries, in his *Report on a System of Public Elementary Instruction*—a document, from the perusal of which, whatever may be its peculiarities, we have derived great satisfaction; and from which, we conceive, no unprejudiced man can rise, without acknowledging himself materially instructed and better informed on the interesting and important subject therein discussed; but which some of the reverend writer's opponents seem to have considered so meritless and objectionable, that they deemed it their duty to condemn it "at one fell swoop," without, apparently, taking the trouble of giving it a perusal. Of this wholesale antagonism, however, more hereafter. In the meantime, we feel bound to allow the reverend writer to speak for, and defend himself, in the language of his



prefatory letter to the Provincial Secretary, on transmitting his Report, and thereby enable our readers to judge for themselves:—

"I cannot expect that an implicit and unqualified assent will be given to every remark which I have made, or to every opinion I have expressed; but I trust the general principles of my Report will meet the approbation of His Excellency, and that the several subjects discussed will be deemed worthy of the consideration of the public.

In availing myself as far as possible of the experience of other countries, and the testimony of their most enlightened Educationists, I have not lost sight of the peculiarities of our own country, and have only imitated distinguished examples of other nations. Prussia herself before adopting any important measure or change in her system of Public instruction, has been wont to send School Commissioners into other countries, to collect all possible information on the subjects of deliberation. France, England, and other European governments, have done the same. Three enlightened Educationists from the United States have lately made similar tours in Europe, with a view of improving their own systems of Public Instruction. One of them spent upwards of two years in Europe, in making educational inquiries,—aided by a Foreign Secretary. I have employed scarcely half that time in the prosecution of my enquiries; and without having imposed one farthing's expense upon the public. Though the spirit of censure has been in some instances indulged on account of my absence from Canada, and my investigating, with practical views, the Educational Institutions of Governments differently constituted from our own, I may appeal to the accompanying Report as to the use which I have made of my observations; and I doubt not but that His Excellency, and the people of Upper Canada generally, will appreciate the propriety of such inquiries, and respond to the spirit of the remarks which that distinguished philosopher and statesman, M. Cousin, made on a similar occasion, after his return from investigating the systems of public instruction in several countries of Germany.

The experience of Germany, (says M. Cousin,) particularly of Prussia, ought not to be lost upon us. National rivalries or antipathies would here be completely out of place. The true greatness of a people does not consist in borrowing nothing from others, but in borrowing from all whatever is good, and in perfecting whatever it appropriates. I am as great an enemy as any man to artificial imitations; but it is mere pusillanimity to reject a thing for no other reason than that it has been thought good by others. With the promptitude and justness of the French understanding, and the indestructible unity of our national character, we may assimilate all that is good in other countries without fear of ceasing to be ourselves. Besides, civilized Europe now forms but one great family. We constantly imitate England in all that concerns outward life, the mechanical arts, and physical refinements; why, then, should we blush to borrow something from kind, honest, pious, learned Germany, in what regards inward life and the nurture of the soul?

But I have not confined my observations and references to Germany alone; the accompanying Report is my witness, that I have restricted myself to no one country or form of Government; but that I have borrowed from all whatever appeared to me to be good, and have endeavoured to perfect, by adapting it to our condition, whatever I have appropriated."

Having so far allowed Dr. Ryerson to speak for himself, we consider it but justice to add that we cannot comprehend how, with such direct evidence on record of the great working merits of the valuable system of primary instruction lately introduced among us—come from what country it may—as evinced in its successful adoption in so many other differently ruled kingdoms and states, it should for a moment be regarded as unsuitable to Canada alone; and we are also not a little surprised that its principal opponents should be among that portion of the provincial press which assumes to itself the title of *liberal*, and as such, advocates every approach to the doings in the neighbouring republics, considering

that so many of these very States take a pride in having adopted its leading features. Nay, we should even think that a feeling of consistency might have made that portion of "the fourth estate" rather regard it with no small degree of respect, since it has the merit of being raised on nearly the same foundation, and composed, for the greater part, of the same materials as found such favour in the eyes of "the Reform Parliament" of 1836; through the medium of the Report on Education by that noted reformer, Dr. Duncombe. But our surprise is still greater, and it gives us real pain to find a portion of the conservative press, as well as respectable wardens of municipal councils, misled by these *ignes fatui* of pseudo-liberality, and blindly launching forth their anathemas against the continuance of so promising a system, before time has been allowed for either the different parts of its present machinery working smoothly into each other, or admitting of the adoption of such improvements as might ensure its more successful operation. As instances of what we complain of, we may mention that one writer, in the face of the explicit quotation above given, unblushingly asserts that Dr. Ryerson, "on finding that he could not saddle the Prussian system at once upon the province, had resolved to accomplish it by little and little; and that his aim was to take the management of the common school education out of the hands of the many, and put it into those of a few—one feature of the Prussian system; whereas he (the writer) had always insisted that if there be any subject which more than another claims the supervision and watchful care of parents, it is the education of their children." And, further, in commenting on the special Report on normal schools, (which we regard as furnishing a good deal of interesting matter, besides forming an unerring common school *vade-mecum* or guide, as containing a well digested body of useful information and instruction for all the officials connected with the working of the system, from the chief superintendent down to the trustees of a school section,) the same writer unhesitatingly observes, that that document "displays some of the doctor's most interesting peculiarities, *but that there is very little in it*; and that the superintendent has the signal bad taste to occupy more than one half of that short Report with a covert attack (*risum teneatis!*) upon his opponents, &c; and with the same delicacy impugns the motives of the head of the government!" Nay, more; the same journalist, in concluding another charitable article, in which he coolly taxes the worthy superintendent with having accomplished little or nothing during three years, piously ejaculates:—"Well, we have a prodigy of a superintendent; will government suffer this man to dishonour the situation he holds any longer?" While a still more "Christian advocate" "Extinguisher" goes so far as to denounce "the provisions of the Education Bill as the bane and curse of our fine province."

Such language might be all very well, considering the particular political quarter from whence it emanates; but when we find the editor of a respectable journal in this city condescending to an acknowledgment of some educational pamphlets in uncourteous flippant terms like the following, we are at a loss what to think: "Politeness compels us to acknowledge the receipt, from the



Education Office, Toronto, of several *blue* books. The postage was also paid, some seven or eight shillings, we presume at the expense of the people of Canada. We had always supposed the blue books of Dr. Meilleur to be the greatest bore in the province, until we laid hold of those of Dr. Ryerson. It will be a long time before any one will make us believe that the compulsory system of Prussia and the German powers is suited to a British people.\*

Nor have matters stopped here, for,—to return to Upper Canada,—we find more than one municipal council gravely stultifying themselves by praying for either the total repeal or entire modification of the present system, on account of the expensiveness and uselessness of its superintendency, and its inapplicability to the circumstances of the country; and in one instance recommending, *as an improvement!* the engaging as teachers of men whose “physical inabilities,” and “decaying energies,” render teaching a suitable occupation for them; and further, that *emigrants* may be employed until “their character and abilities are better known, and can be turned to better account!”†

Now, while entering our protest against such sweeping objections as these, and more particularly against the injustice of at once visiting the defects of a system so recently sanctioned by the Legislature, and therefore still new and untried, upon the heads of the practical superintendents of the day, we are free to admit that there is still room for considerable improvement in the present school bill; but far from regarding the superintendents, whether provincial or districtal, as either expensive or useless, we look upon them as indispensable, and, in fact, the very life and soul of the system; and even go further, (following the example of more than one enlightened European statesman) in considering national education a matter of such paramount importance, that we conceive that far from the chief superintendence, resting, *ex-officio*, on an already over-burthened provincial secretary, as with us, it should be vested in an officer having no other duties to perform, and who should be recognized as a “*responsible*,” though, for obvious reasons, unpolitical member of the government.‡

Lest, after all, the foregoing observations should not prove sufficiently convincing or explanatory, we further beg to refer our readers to the following unobjectionable quotations from Dr. Ryerson’s special Report of the measures adopted for the establishment of the Provincial Normal School, (which has since so auspiciously taken place at Toronto) as well as for carrying into effect, generally, the common school system,—intended, as it evidently was, in reply to a few of the objections which

had been so unsparingly raised against the system placed under his superintendence.

It is not possible to pass a law against which objections would not be made from some quarters, and the introduction of the best law is necessarily attended with some inconvenience. When the Common School Act of 1843 superseded that of 1841, so serious was the derangement of the whole school system of Upper Canada, that many of the provisions of the Act of 1843, could not be carried into effect during the first year of its existence; Trustees, in many instances, could not be elected as required by the Act, the Chief Superintendent of Schools, by order of the Governor in Council, found it necessary to exercise an arbitrary discretion in disposing of many cases brought before him, without regard to the requirements of the Act; no School Reports for 1843 were presented to the Education Office, in consequence of the passing of that Act, and consequently the data contemplated by the act for apportioning and distributing, and paying the Legislative School grants for 1844, were wanting. Under such circumstances, there was much embarrassment and confusion, and in some cases, serious loss to individuals.

It would not have been surprising, then, if some confusion had attended the transition from the late to the present School Act. But I am not aware that such has been the case. The machinery of the new Act has gone into operation without occasioning any derangement of our School affairs.

When the School Law in the neighbouring State of New York was first established, many School districts, and even counties, refused to act under it; but I know of no example of the kind in Upper Canada, notwithstanding the efforts of a section of the public press to create such opposition at the time the Act was about to come into operation.

The dissatisfaction created at the time was not against the provisions of the School Act, but against what certain parties represented to be its provisions, before its general distribution; not against its operations, but against what certain parties represented would be its operations. However, the circulation of the Act itself, and its actual operations, have corrected most of the false impressions which had been produced by misrepresentations.

It has been found, that so far from the Trustees having no power to employ a Teacher without the permission of the Chief Superintendent, they have more power than had been conferred upon School Trustees by the former Act, and can employ whom they please, and in what manner and for what time they please; that so far from the Board of Education interfering in matters of conscience between parents and children, and compelling parents to forego cheap, and buy dear school books, the Board has no authority of the kind, and has employed its best exertions to bring within the reach of all parents cheap as well as good books; that so far from the Chief Superintendent of Schools having authority to introduce what books he pleases into Schools, he has no authority whatever in respect to introducing books, and so far from having power to employ and dismiss School Teachers at his pleasure, he has no power to employ a School Teacher at all, or even to give him a legal certificate of qualification; that he has no power to interfere in the affairs of any School Section, unless appealed to by some party concerned; that his decisions have in no case the authority of a Court of Law; that both his power and his duty relate to seeing the conditions imposed by the Legislature, fulfilled in the expenditure of the Legislative School Grant; that his power is much less than is given to a similar officer in the neighbouring State of New York, and is an accumulation of labour, and not an exercise of any arbitrary authority; that every act of the Chief Superintendent of Schools is subject to the authority of a Government responsible to the Legislature of the country. But while the constitution of the Board of Education has been ostensibly objected to, I believe the real objection is rather against that with which the Board has been identified, namely, the prohibition of United States School Books in our Common Schools. It seems to be supposed that if there were no Board of Education to recommend books to be used in Schools, there would be no exclusion of American Books from the Schools.

The fact, however, is, that American School Books, unless permitted by the Board, are excluded by the 30th section of the Statute; whereas the Board of Education is constituted by the 3rd Section.

In regard to the exclusion of American Books from our Schools,

\* The above was no doubt induced by the sad evidence at the time afforded of the unsatisfactory working of the last Lower Canada School Bill, of which we shall hereafter have occasion to say a few words; but that, surely, could not justify a gratuitous violation of courtesy towards either Dr. Ryerson or Dr. Meilleur, and far less towards these gentlemen conjointly.

† Instance the alleged memorial of the Gore District Council, and the circular letter of the warden of that of the Newcastle District.

‡ In more than one of the European governments this is the case; and in France this important officer is styled the “Minister of Instruction,” and has a council acting with him.

I have explained, as I have had opportunity, that it is not because they are foreign books simply that they are excluded, although it is patriotic to use our own in preference to foreign publications; but because they are, with very few exceptions, anti-British, in every sense of the word.

They are unlike the School Books of any other enlightened people, so far as I have the means of knowing. The School Books of Germany, France, and Great Britain, contain nothing hostile to the institutions, or derogatory to the character of any other nation. I know not of a single English School Book in which there is an allusion to the United States, not calculated to excite a feeling of respect for their inhabitants and Government. It is not so with American School Books. With very few exceptions, they abound in statements and allusions prejudicial to the institutions and character of the British nation.

Another ground of opposition, in some quarters, to the present School Act, is, the exclusion of *Alien Teachers* from our Schools. I think that less evil arises from the employment of *American Teachers*, than from the use of American School Books. Some unquestionable friends of British Government, and deeply interested in the cause of popular education, represent that the clause of the Act not allowing legal certificates of qualification as Teachers to Aliens, operates, in some places, injuriously to the interests of Common Schools, as Aliens are the best Teachers that can be procured in those places. The provision prohibiting the qualification of Aliens as Common School Teachers constituted the 37th Section of the School Act of 1843; but as it did not take effect until 1846, it has been erroneously identified with the present Act in contradistinction to the late Act. Trustees and parents can employ Aliens or whom they please as Teachers; but both the late and present School Act confine the expenditure of the School fund to the remuneration of Teachers possessing legal certificates of qualification. Whatever may be thought of the wisdom or expediency of the clause restricting legal certificates of qualification to natural-born or naturalized British subjects in the first instance, I believe the public sentiment is against its repeal, and in favour of having the youth of the country taught by our fellow-subjects, as well as out of our own books.

There is, observes Mr. Ryerson, another clause against which I have been informed, more repugnance is felt than against any other provision of the Act; namely, the latter part of the fifth clause of the 27th Section, in the following words; "And before such Trustees, or any one on their behalf, shall be entitled to receive from the District Superintendent their share of the Common School Fund, they should furnish him with a declaration from the Secretary Treasurer that he has actually and *bonâ fide* received, and has in his possession, for the payment of the Teacher, a sum sufficient, with such allowance from the Common School Fund for the purposes aforesaid."

The only objection of which I am aware against such a requirement by the Legislature, as a condition of paying its bounty, is, that parents are not able to pay the Teacher's quarterly fees. But is not each parent more able, and is it not much more reasonable that he should be required to pay the few shillings quarterly fees due from him to the Teacher, than that the poor Teacher should be deprived of the punctual payment of the aggregate amount of School fees due him? In addition to the claims of justice, upon the ground of labour performed, the argument of *need* is much stronger on the side of the Teacher than on that of his employers.

My strong conviction is, that this least popular clause of the Act—though attended with some opposition, and perhaps inconvenience in some cases, on its first introduction—will ultimately, if allowed to remain, prove a great boon to Teachers, a great help to Trustees, and a great benefit to Common Schools.

Some attempts have been made to excite opposition to the Act by representing the system as *compulsory*, and that education should be left to *voluntary effort*. The duty of the State to provide for the education of its population has been admitted and avowed by every constitutional government of Christendom, as well Republican as Monarchical; and I do not think the Government and Legislature of Canada will abandon their duty in this respect to gratify the selfishness of some wealthy individuals, or the ultraism of certain partisans. But our system of Schools is not *compulsory*, in the sense in which that term is applied to despotic governments. The vote of the Parliamentary grant is the voluntary Act of the people, through their Legislative Representatives, the reception of a part of that grant and the levying of an

assessment is the voluntary act of the people in each District through their Council Representatives; the reception of a part of the School Fund by any School Section, and the levying of a Rate-bill, is the voluntary Act of the people in such Section, through their Trustee Representatives; in addition to which, the present Act does not require Trustees to levy a Rate-bill at all, but authorises them to adopt voluntary subscription, if they prefer it, and then enables them to collect the amount of each voluntary subscription as promptly and in the same manner as if it had been imposed by Rate-bill.

An objection has been made from another quarter, that the Act does not give to the Clergy sufficient power as School Visitors. I know not what greater power could be given to the Clergy without destroying the School System; and I believe any Clergyman who diligently and judiciously exercises the power given him by the Act, will find himself able to do much good. If any Clergyman will not avail himself of the facilities which the Act affords him of encouraging and influencing the education of Canadian youth, because it does not give him a positive control in the Schools, which cannot be severed from their Trustees and Provincial management, it is to be hoped that few will imitate his example, but that all will take into consideration the social condition and circumstances of the country, and contribute their pious and appropriate exertions to advance its general welfare.

Such are the *principal* objections which I have heard urged against the present Common School Act. Some of them it will be seen, arise from opposition to any public School system whatever; others are founded upon misapprehensions produced by misrepresentations; others again relate to clauses which, it is to be hoped, will soon be amended; while others proceed from foreign predilections, and not from any thing unusual in the provisions of the Act. With some provisions for the better establishment and maintenance of Common Schools in Cities and Towns, and the amendment of certain clauses of the Statute, I think action, rather than legislation, is required to promote the instruction of the rising generation; that the law should not be changed without a trial; that improvements, as occasion may require, rather than revolutions, should be made in the School System; that experience is a safer guide than speculation in this most important department of legislation and government. I think the foundation laid ought not to be subverted or shaken; the creation, and completion of the superstructure must be the work of time as well as of persevering industry.

In fine, observes the Rev. Superintendent, in reporting the means employed to bring the various provisions of the New School Act into operation, I have thought it proper thus to notice the chief objections which have been made against some of its provisions, and the grounds of such objections. From the increased interest which is felt and manifested in most parts of the Province on the subject of public Education, from the obvious improvement which is reported as progressing in the organization and management of the Schools in several Districts, and from the decline of party feeling and the cultivation and growth of practical and intelligent sentiments among the people, I hope to be able, in subsequent Reports, to present some substantial fruits of the exertions of the Legislature and Government in promoting this most vital and general interest of our common country.

To the above copious extract we consider it an act of justice to add, that had Dr. Ryerson vain-gloriously attempted to foist off the system, advocated by him, as original, and emanating from himself, some offence might have been fairly taken at his presumption; but, so far from this being the case, he took the very opposite course, nearly one-half of his general Report being, in all candour, composed of unwearied thankful acknowledgements, and quotations from the writings, sayings, and doings of the most experienced and enlightened educationalists of every country visited by him, *with the view of enabling his readers to judge for themselves*, while he contented himself with avowing his own conviction, that if the system is allowed to have time to be well understood, it will be found to operate to the entire satisfaction of the country.

Having so far done justice to Dr. Ryerson, we now proceed to the discharge of a similar duty to the public, in candidly pointing out wherein we regard the provisions of the Legislature, as well as the disposition of the people in favour of successful general education, as falling altogether short of the desired mark; and this we shall endeavour to exemplify in at least three remarkable instances, namely:

1st. The utter neglect, still manifested, of the just claims of common school teachers to far greater consideration and more substantial remuneration, as a highly respectable, influential, and important class of men;

2nd. The extraordinary manner in which the urgent moral propriety of, as far as possible, providing for the education of the female sex, in separate schools, is almost entirely lost sight of;

And 3rd. The remarkable fact that the establishment of district grammar schools, on a suitable liberal foundation, as the higher of the two branches of primary instruction, and the great connecting link between an elementary or common school, and a university education, though the first to be provided for, should have been shuffled off for half a century, and still remain in an embryotic state;—for it cannot be supposed that either the late generally miserable district schools, or the present contracted grammar schools, were intended to supply their place,—while the less urgent claims of a university, destined for the exclusive benefit of the higher and richer portion of society, who can best afford any extra expense, should have been unceasingly agitated and forced on to precocious maturity, until, becoming the bane of contention among rival political and sectarian parties, it has more than once convulsed the province, and threatened to shake the very government to its centre.

As these are rather serious charges, it would have been very desirable to have been able to take a rather extended view of the grounds on which they are based, although only partially connected with the documents before us; but our space not allowing of such a step at present, we are constrained to refer our readers to such parts of the widely circulated Reports on education as bear upon them, and to content ourselves with prefacing our first objection by a brief outline of the noble scope of the otherwise highly promising elementary system now in progress, and then proceeding to the demonstration of the impossibility of the expected results being realized, from the inadequate means and instruments at present employed.

In few words, then, be it remembered, that it is intended that our provincial system of primary instruction should be universal, *i. e.*, embrace the whole body of the people; that it should be practicable; that it should be founded on religion and morality; and that it should develop all the intellectual and physical powers, and should therefore provide for the efficient teaching of the following subjects, *viz.* 1st, biblical history and morality; 2nd, reading and spelling; 3rd, writing; 4th, arithmetic; 5th, grammar; 6th, geography; 7th, linear drawing; 8th, vocal music; 9th, history; 10th, natural history; 11th, natural philosophy; 12th, agriculture; 13th, human physiology; 14th, civil government; and 15th, political economy.

So vast an array of branches of mere elementary education, may perhaps startle those who have not been accustomed to look deeply into such matters, and may even be considered by some as altogether visionary; but whatever doubt may exist in this colony of the practicability of so comprehensive a course of instruction being realised, must be at once set at rest by the convincing reply made by the Provincial Superintendent—that the whole of these subjects are connected with the well-being of the community, and should therefore be made accessible to them in the common schools; and that if the higher classes are to be provided with the means of a university education, surely the common people, the bone and sinew of the country, should be provided by the State with the means of the best common school education: and, farther, that as all the branches above enumerated have been and are taught in the common schools in many other countries—in the mountains and valleys of Switzerland, in the interior and *not* fertile and wealthy countries of Germany, in many parts of France, in many of the schools of Great Britain and Ireland, and in a considerable number of the Eastern and Middle States of America, surely what has been done and is doing in so many other countries in respect to elementary education, may and ought to be done in Canada.

Taking for granted then, that such is the true state of the case, and that such are the results that ought to be expected from a well organized provincial system, it becomes a matter of great importance to enquire how far the means and instruments at present applied, are likely to prove adequate to the accomplishment of the noble end in view; and if such be done, we hesitate not to aver, that the answer of every reflecting man will be—that it will be morally impossible, so long as the common school-master occupies his present degraded position—whether we regard the emoluments of his highly important office, or his general status in society—and that, too, in spite of the institution of the best Normal and Model Schools in the world.

As very justly observed by M. Guizot, the able Prime Minister of France, on introducing the law of primary instruction to the Chamber of Deputies in 1833:

“All the provisions hitherto described *would be of none effect*, if we took no pains to procure for the public School thus constituted an able Master, and worthy of the high vocation of instructing the people. It cannot be too often repeated, that *it is the Master that makes the School*. What a well-assorted union of qualities is required to constitute a good Master! A good Master ought to be a man who knows much more than he is called upon to teach, that he may teach with intelligence and with taste; who is to live in a humble sphere, and yet have a noble and elevated spirit; that he may preserve that dignity of mind and of deportment, without which he will never obtain the respect and confidence of families: who possesses a rare mixture of gentleness and firmness; for, inferior though he be, in station, to many individuals in the *Communes*, he ought to be the obsequious servant of none; a man not ignorant of his rights, but thinking much more of his duties; shewing to all a good example and serving to all as a counsellor; not given to change his condition, but satisfied with his situation, because it gives him the power of doing good; and who has made up his mind to live and to die in the service of Primary Instruction, which to him is the service of God and his fellow-creatures. To rear up masters approaching to such a model is a difficult task, and yet *we must succeed in it, or we have done nothing for elementary instruction*. A bad Schoolmaster, like a bad Priest, is a scourge to a *Commune*; and though we are often

obliged to be contented with indifferent ones, *we must do our best to improve the average quality.*

And how, let us ask, is this work of regeneration to be accomplished with us?—certainly not by the mere creation of Normal and Model Schools, unless the future emolumentary prospects held out be such as to induce men of a respectable station of life, and more than sufficient preliminary education to become candidates for the arduous and responsible office of teacher; yet, what has often hitherto been the tempting average income of the common schoolmaster, derived from the public bounty, local assessment, and school-fees, united?—no less a sum than from £20 to £30 per annum!—a pittance which the most illiterate field-labourer would spurn with contempt. The first grand step, then, towards elevating the teacher to his true position in society, is to be very particular in the selection of well qualified persons, through the medium of either a Provincial or District Board, after having gone through a proper Normal training; but that ordeal passed, the next step is to encourage the successful candidate to regard the office of teaching with enthusiastic attachment; and as the honourable profession of a life, by ensuring to him a far more respectable minimum remuneration for his valuable services, and at the same time opening a door for further promotion as the reward of superior merit. Let this be liberally done, *and that must, in a great measure, rest with the people.* and you at once elevate the teacher to his legitimate respectable position in society, by the side of the clergyman and the gentleman of his locality.

On this important point, a Committee of inquiry, appointed by Sir George Arthur in 1840, and to whose labours we shall have frequent occasion to refer, makes the following very just observation:—"The first step towards the amelioration of Common Schools, is to ameliorate the condition of the master. At present they have reason to believe that but too many teachers are unfit for this responsible station, from the want of literary or moral qualification. The cause of this, they believe to be, the inadequate remuneration held out to those who embrace the occupation. In this country, the wages of the working classes are so high, that few undertake the office of schoolmaster, except those who are unable to do an thing else; and hence the important duties of education are often entrusted to incompetent and improper persons. The income of the schoolmaster should be at least equal to that of the common laborer; and until some provision of this nature is made, it is feared it will be in vain to expect a sufficient supply of competent teachers."

In allusion to the same subject, Dr. Duncombe had, (four years before) very justly observed in his Report on Education, that he was much inclined to believe that "as is the master, so is the child;" and that as the lame and lazy, because they would work cheap, were entrusted with the promotion of the minds of our youth, they would, to a certain extent, copy their masters and though their bodies may not limp, their minds will be both sluggish and deformed. Hence the necessity of having teachers correct, gentlemanly persons, well prepared for their arduous, responsible office, and fit models for the youth of the country to imitate. And

further, that a system of educating, furnishing and liberally paying a sufficient number of competent teachers, commensurate with the wants of the people, must be adopted, and publicly and zealously supported. The situation of the schoolmaster must be rendered respectable, and reputed to be an honourable employment, that gentlemanly, competent persons may seek it as a business for life.

It is singular that the absolute *necessity* of elevating the teachers in the scale of society, does not appear to have been yet sufficiently appreciated by our American neighbors of New York, although the following excellent observations on the subject, were made by the Chief Superintendent of that State so far back as 1834:—"An enlightened appreciation on the part of the inhabitants of districts generally, of the functions and responsibilities of teachers—a determination to secure the highest order of talent, and to provide an adequate compensation, and a disposition to elevate the character, and advance the social rank of the teacher, by assigning him that station in the regards of the community which is due to the dignity and utility of his profession, may be regarded as indispensable pre-requisites in the success of any system which contemplates the scientific preparation of teachers."

The same subject has also more or less engaged the attention of other States of the Union, and among them the young State of Michigan became at once deeply impressed with the necessity of so important a step; as evinced in the following remark by its first superintendent, as far back as 1837:† "Without competent teachers, the most perfect system of external organisation must be powerless; must utterly fail of accomplishing its object. The truth is, education is to be regarded as a science, for it has its distinct subject, and distinct object, and is governed by its own peculiar laws; and has, like other sciences, its corresponding art, the art of teaching. It may, then, be pertinently asked, on what principle of common sense is it that a man is considered good enough for a teacher, because he has satisfactorily proved himself good for no one thing else? Why is it that the utter want of health to exercise any other profession, is frequently the only reason why a man should be thrust into this, which requires more active mental labour in the discharge of its duties than any other profession whatever? Alas, it is not by teachers such as these that the intellectual power of a people is to be created." And further: "It is utterly impossible to elevate the schools, and make them what they ought to be, without elevating the character and rank of the teachers."‡

\* See Randall's Common School System, p. 57.

† See Pierce's Report of Superintendent of Public Instruction of the State of Michigan, for 1836.

‡ It may be further remarked, that to ensure a proper feeling of ambition and emulation in the teachers generally, the literary acquirements of all common school masters should be such as not only to qualify them for undertaking, at extra hours, the instruction of a few private pupils in the next higher branches of education (should such offer among the more wealthy families in their neighbourhood), but also to allow those of the first class to aspire to the head mastership of a district grammar school, on

With regard to the feeling entertained on this important subject by the first statesmen on the continent of Europe, it is only necessary to add to what is adduced by our own rev. superintendent, that both M. Cousin and M. Guizot cordially subscribe to the policy of that part of the Prussian system by which, not only is the school-master raised to a functionary of the state, and, as such, has a right to a retiring pension in his old age, but there is formed in every department (or district) a fund for the benefit of the widows and orphans of school-masters, which the law rather recommends than enforces; and that the same feeling prevails throughout Germany, as well as Switzerland and Holland, and is rapidly gaining ground in Britain, but more particularly in Scotland, where a grand move has lately been made in the right quarter by the teachers themselves. We allude to the great professional Association of school-teachers in Scotland, formed in Edinburgh in the month of September last, at the auspicious organisation of which not less than between six and seven hundred teachers were present.\*

Various unreasonably economical estimates have been formed of what might be regarded as a fair medium compensation to common school masters, ranging from £40 to £70 per annum; but we unhesitatingly pronounce even the latter as far too low, and regard nothing less than from £90 to £100 as sufficient, particularly when it is considered that though the school act empowers municipal councils to raise funds for the erection of *teachers' dwelling-houses*, as well as schools, no such accommodation has yet in general been furnished; whereas the poorest parochial school in Scotland must have at least one room and a kitchen attached to the school room, for the accommodation of the teacher's family. Even in that country, however, the respectable position of the teacher has long been on the wane; the income of a parochial school-master 150 years ago having been nearly on a par with the clergy; whereas the average income of the former is not now more than £55, while the minimum stipend of the latter is £150, exclusive of manse and glebe. At all events, there should be a total revisal of that clause of the school act which insists on thirty children at least attending school to entitle the teacher to a share in the government bounty; whereas,

a vacancy occurring, and by the same rule to encourage a master in the latter to look forward to promotion as a professor in the university.

\* This Association is to be called *The Educational Institute of Scotland*; and its object is to raise the status of school-masters throughout the country, and to improve the standard of education; to accomplish which it divides its members into three grades, junior licentiates, senior licentiates, and fellows; and grants to each diploma, according to ascertained attainments; and in part proceeds upon the same principle which regulates the granting of degrees in a University. The present President is Dr. L. Schmitz, Rector of the High School, Edinburgh.

The organization of a somewhat similar Association in Canada would be productive of very beneficial results. If an example be wanting among our American neighbours, a better cannot be set than that of "the Western Literary Institute, and College of Professional Teachers," established some twelve or fourteen years ago, and diffused over the four Western States of Kentucky, Ohio, Indiana, and Illinois, an interesting volume of whose proceedings now lies before us.

that being a matter over which he can have no control, there should be a minimum teachers' salary, whatever may be the population in each school section, which also should be limited to a certain extent of country; and wherever either the population may be so sparse, or the inhabitants so insensible to the blessing of education, as not to furnish even ten scholars,\* a school should nevertheless be established, and the master paid the regular quota of government allowance and assessment; and whatever that joint amount may fall short of the minimum salary should be made up from the school fund. At the same time, no deduction whatever should be made from any extra emolument derived from a flourishing school; these being only to be regarded as a fair equivalent for extra labour, and being sure to act as a stimulus to laudable emulation, as well as greater personal exertion on the part of the teacher, on behalf of the general spread of education, in his respective neighbourhood.

Much more might readily be added on this very important head; but we are compelled to forbear for the present, that we may pass on to the notice of the extraordinary manner in which the Legislature, as well as the Rev. superintendent, have all but lost sight of the urgent moral propriety of encouraging, wherever practicable, the establishment of schools for female children, conducted by well qualified teachers of their own sex, altogether distinct from those for boys. This is the more remarkable considering the very great interest taken in this truly important and interesting class of schools by our American neighbours, as well as in Dr. Duncombe's report on education, a document of considerable value (whatever may be the questionable moral or political character of the writer), and with which the leading features of the present system generally coincide. That our readers may judge how far this observation is well founded, we beg to refer them to the Superintendent's Report, as well as the school act, where they will find that this highly desirable class of seminaries is almost entirely overlooked in the former, and only slightly glanced at in an appendix; and that the Legislature seem to have been equally indifferent to the subject; the only reference to it in the Upper Canada school act being in the 42d clause, making it "*lawful*" for any District Council to *authorize* the establishment of "both a male and female school in every school section," and in the 44th clause interpreting the word teacher as including both sexes; whereas a little more stress is laid upon it in the Lower Canada act, the 30th clause of which not only *expressly authorizes* school commissioners of municipalities to *establish* a girls' school in each school district, distinct from that for boys, as a separate district; but even provides that if any religious community should have already established a girls' school for elementary education, it may be placed

\*The lowest number now prescribed by the Lower Canada act is fifteen. In Prussia the proportion is one teacher to every ten scholars; and it was very justly observed by Dr. Duncombe, that "if Prussia with a dense population finds that proportion needful, the sparseness of our population, in our wide spread territories, surely demands an equal supply." The fact is, it is in the thinly settled solitary backwoods that the presence of the teacher is most wanted.

under the management of the commissioners, from year to year, and be thereby entitled to all the advantages granted to common schools. As a contrast to this seeming indifference, Dr. Duncombe not only devoted several pages of his Report to describing and enforcing the propriety of engraving this highly interesting and morally influential branch of common schools on whatever may be our provincial system, but suggested that one out of four normal schools proposed by his act should be exclusively devoted to the training of female teachers; and it is but proper to add, that this great improvement was not lost sight of by the commission of inquiry appointed by Sir George Arthur in 1840; for in their plan for the institution of township model schools, they propose that there should be a male and female teacher in each; and in the estimate of the probable expense of the general system recommended by them, a provision is made for a number of female equal to that of male teachers.

We might readily extend our observations on this important head, did our already nearly exhausted space permit, but we must rest satisfied with referring our readers for other interesting matter to the annexed note, as occupying much less room than would otherwise be the case,\* and hasten to a conclusion, by here taking the

\* Regarding this as a desideratum of great importance in whatever improvements may take place in our common school system, and thoroughly coinciding in the opinion of a fair American writer on education, that feminine delicacy requires that girls should be educated by their own sex, from evident considerations that regard their health and convenience, the propriety of their dress and manners, and their domestic accomplishments, we are induced to subjoin the following more detailed remarks on this subject.

The Prussian system inculcates that primary instruction, though divided into two degrees, has its peculiar unity and general laws; admits of accommodation to the sex, language, religion, and future destination of the pupils; and, first, enjoins separate establishments for girls to be formed wherever possible, corresponding to the elementary and larger schools for boys; at the same time that it delicately prescribes, that though, as a national establishment, boys' schools should covet the greatest publicity in their periodical examinations, those for females should be less so, and therefore take place in the presence of the parents and masters only, without any general invitation. Add to which private seminaries where girls are educated are permitted to undertake the office of model or normal schools for private teachers; their competency to instruct being finally tested through a regular examination by the provincial consories.

In Britain, also, this interesting subject has attracted a due degree of attention; particularly under the auspices of the British and Foreign School Society, in whose normal model schools the preparation of teachers for girls' schools is devolved upon a Ladies' Committee, to whose unremitting attention that department is much indebted: the general committee very justly observing, that they feel it impossible to attach too high a degree of importance to the improvement and extension of female education. It may be added, that fifteen years ago the proportion of female to male candidates in training was as forty to fifty-eight.

In most of the American States, this great desideratum has attracted the same degree of attention, but more particularly in Massachusetts; the superintendent of which was, so far back as 1840, led to remark as follows: "A change is rapidly taking place both in the public sentiment and action, in regard to the employment of female teachers. The number of male teachers in all the summer and winter schools for the past year was thirty-three less than for the preceding year; while the number of females was 103 more. That females are incomparably better teachers for young children than males, cannot admit of a doubt. Their manners are more mild and gentle, and hence more in

liberty of expressing our decided opinion, sanctioned by upwards of twelve years attentive personal observation and anxious reflection on the subject, during visits to various parts of the Province,—from Goderich to Quebec,—that the palpable oversight in regard to female teachers should immediately be remedied, and that, wherever it can possibly be done, married teachers should at all times be preferred, for even boys' schools, especially should the wife be qualified for undertaking the charge of a girls' school, combined with the very youngest boys, on however limited a scale, in a room distinct from that under her husband.

We now arrive at the last branch of our observations, as regards Upper Canada, namely, the remarkable fact that the establishment, on a suitable liberal foundation, of district *grammar schools*, as the higher of the two branches of primary instruction, and the great connecting link between an elementary or common school and a university education, though the first proposed to be provided for, should have been shuffled off for half a century, and still remain in an embryotic state,—for it cannot be intended that the late miserable district schools, or the present contracted grammar schools, into which these have been metamorphosed, should supply their places;—while the less urgent claims of a university, destined for the exclusive benefit of the higher and richer portion of society, who can best afford any extra expense, should have been unceasingly agitated and forced on to precocious maturity, until becoming the bane of contention among rival political and sectarian parties, it has more than once convulsed the province, and threatened to shake the very government to its centre.

consonance with the tenderness of childhood." "A statement," observes an able British writer, "worthy of serious consideration in this country, (*i. e.* Britain), where employment suited to women of cultivated minds and polished manners, are greatly wanted." See *Edinburgh Review*, volume 73.

In the state of New York, also, the committee on education made the following apposite remarks on the same subject more than twenty years ago: "The committee have not been able to discover why, upon every principle of justice and public policy, seminaries for the education of females in the higher branches of knowledge should not participate in the public bounty equally with those for the instruction of males." See *Randall on Common Schools*, page 40.

Although we have already alluded in general terms to Dr. Duncombe's observations on this subject, we are induced to add the following, as a *finale* to this protracted note: "While upon the subject of normal schools, I cannot comprehend why schools for the education of female teachers may not prove equally advantageous to the cause of education, and the happiness and ornament of society." And he elsewhere adds: "When we consider the claims of the learned professions, the excitement and profits of commerce, manufactures, agriculture, and the arts; the aversion of most men to the sedentary, toilsome duties of teaching and governing young children, the scanty pittance that is allowed to the majority of teachers, and that few men will enter a business that will not support a family, when there are multitudes of other employments that will afford a competence and lead to wealth, it is chimerical to hope that the supply of teachers is to come chiefly from that sex. It is women, fitted by disposition, and habits, and circumstances for such duties, who, to a very wide extent, must aid in educating the childhood and youth of this province; and therefore it is that females must be trained and educated for this employment. And most happily, it is true, that the education necessary to fit a woman to be a teacher, is exactly the one that best fits her for that domestic relation which she is primarily assigned to fill,



In repeating this strong allusion to the still unsettled state of the university question, it is neither our wish nor intention to enter into any discussion of its disputed merits, whether moral or political. It is sufficient to have avowed our decided conviction that the paramount *prior claims* of *grammar schools*, as of far greater importance to the people at large, have been entirely lost sight of, and sacrificed to the over-zealous promotion of that *one* laudable object, for the benefit of a particular class; and we even indulge a hope that we shall not raise our humble voice in vain in favour of the speedy correction of so unjustifiable a procedure.\*

That our readers may be aware that we are not arguing upon false or untenable premises, we beg to remind them that His late Majesty, George III., was graciously pleased, so far back as 1798, to allot funds—"first, for the establishment of Free grammar schools in those districts in which they were called for; and, *in due process of time*, the establishing of seminaries of a larger and more comprehensive nature, for the promotion of religion and moral learning, and the study of the arts and sciences;" and that it was consequently arranged by a Provincial Board, that one half of this fund should be devoted to the former, and applied—1st, *to the erection of the necessary buildings*; 2nd, *to the payment of the salaries of the masters*; and 3rd, *to the keeping of the buildings in repair, and the purchase of books and philosophical apparatus.*" Instead, however, of measures being taken to carry this arrangement into immediate effect, so much was it gradually lost sight of, that in 1809 an act was passed by the Provincial Legislature, making a special grant of £800 per annum for four years, for the establishment of one public school in each

district, *upon an entirely different foundation*, as simply allotting a salary of £100 to the masters of each, without making any provision for buildings, &c. And hence the origin of our late district schools;—a kind of seminary altogether distinct from the intended royal grammar schools, as was in fact expressly admitted to be the case by a committee of the Executive Council in 1819, when, on the endowment of a university becoming the more favoured grand object, they declared that a provision for district schools was no longer required from the same fund, being made by the Legislature; at the same time that they considered more than double the original grant for a university required for the mere erection of a suitable building, and providing a library, philosophical apparatus, and botanic garden; besides an annual outlay of £4000, to defray the expense of professors' salaries, &c. &c.

No wonder, then, that, on the claims of the royal grammar schools continuing disregarded for twelve years longer, a select committee of the House of Assembly, in reporting on the school lands, could not then refrain from being struck with the singular fact, that "no apparent benefit had resulted to the inhabitants of the country from the school reservation for upwards of thirty years, and suggesting the immediate institution of no less than eleven district grammar schools, at £400 per annum to each, and twelve subordinate, or township schools, with £50 to each; at the same time that they expressed their *aversion to an expensive endowment for a university, until the original intention of founding a free grammar school in each district had first been carried into effect.*"

\* The following are the Resolutions passed on the occasion:—  
"Resolved, That His Majesty, in the year 1797, was graciously pleased to communicate to the Government of this Province, by a Despatch from His Grace the Duke of Portland to Mr. President Russell, in answer to a joint address of the Legislature, His Majesty's intention to set apart a certain portion of the waste lands of the Crown, as a fund for the establishment and support of a free grammar school in those districts in which they are called for, and in due process of time to establish other seminaries of a more comprehensive nature."

"Resolved, That although more than thirty years have elapsed since His Majesty made this most gratifying communication, it does not come within the knowledge of this House, that even one free grammar school has been endowed from these lands, or any other seminary established out of that reservation."

"Resolved, That the establishment by the Legislature of a public school in each district, with a salary of one hundred pounds currency paid out of the Provincial Treasury to the master; does not afford sufficient means to instruct the youth of the province in the several branches of classical and scientific learning, and ought not therefore to be considered as a reason for withholding the support which His Majesty intended for the District Grammar Schools."

"Resolved, That it is most important to the contentment and welfare of the people of this province, that the school lands be appropriated to the purposes for which they were originally intended, and immediate steps taken to represent to His Majesty's Government, that the several Districts, from their extensive and rapidly increasing population, are now in a state to require the establishment of free grammar schools with a suitable endowment, which schools, if incorporated with the present district schools, would afford the means of respectable support to a master and two assistants in each, and thereby enable the inhabitants generally to confer the blessings of a liberal education on their children; and find employment as masters for such of them as may be found to have made the necessary proficiency in the acquirement of classical and scientific knowledge."

\* In further support of our humble opinion on this subject, we beg to remark, that the grammar schools of Upper Canada occupy, with regard to the interests of the people, even a higher position in the scale of education, than the *mittel schules*, and lower burgher schools of Germany, and the *ecolles moyennes*, or middle schools of France, as adverted to by a learned and powerful British writer, who, in speaking of the *projet du loi*, for primary instruction introduced by M. Guizot in 1833, and borrowing his materials from the speech of that celebrated minister on the occasion; observes:—The fundamental questions with reference to the instruction of the people, are: 1st, the subjects or branches which it ought to embrace; 2nd, the nature or description of schools in which it ought to be carried on; and 3rd, the authorities which are to superintend, control, and direct them. With regard to the first head, primary instruction (as distinguished from classical and scientific) is divided into two degrees or stages; the first, or lower degree, being the minimum, must be provided, universally, for the humblest village, as for the largest city. Between this and the classical and scientific education which is given in public schools and colleges, as well as in many private academies, there is a wide interval in France, which has hitherto been an entire blank, leaving a large and important middle class without the power of choosing between pure elementary instruction and that higher branch called secondary, which, besides being very costly, imparts a kind and extent of knowledge not appropriate to their condition in life. To fill up this gap, the new law establishes a higher degree of primary instruction in schools, which, from the middle place they occupy, the French, translating the German *mittel schule*, have already named *ecolles moyennes*. (See Edin. Review, vol. 76.) Need we add, that it is the much wider gap existing between the mere common school and university education in Canada, which we wish to see filled by truly respectable grammar schools, holding the rank of efficient classical academies, in every district of the province.



From that period up to the present time, if our memory is correct, the only successful Legislative attempt made in favour of the great desideratum advocated by us, was in 1841, when an Act was passed authorizing *District Schools* to be henceforward considered as Grammar Schools, as contemplated by His late Majesty George III., and allotting £100 for furnishing an additional master, and other means of instruction, and £200 for the erection of a school-house, provided an equal sum should be raised by the inhabitants; and also £100 more per annum for the establishment of two other subordinate Schools in any part of each District, on the inhabitants providing a suitable school-house, with at least 50 (now reduced to 30) scholars; and further offering to extend a similar bounty to even four such schools in each District: but not one word referring to the original far more suitable and liberal provision made by the Royal donor, in favour of *Grammar Schools*—in precedence of all other Educational Institutions; And thus, in fact, stands the question at present.

Having proceeded thus far, we now consider it advisable to take a more distinct, though cursory retrospect of the various plans proposed for carrying the establishment of Grammar Schools into effect. The first was matured in 1798, by a Special Provincial Board, consisting of the Executive Council, and the Judges and Law Officers of the Crown, who came to the following conclusion:—

“When the subject was first opened, it seemed to be the unanimous opinion, that the intention of the Royal Founder of the free Grammar Schools and University of Upper Canada, could not be effectuated, but by a liberal provision for their establishment and maintenance; and each member of the board seemed deeply impressed with a conviction, that in making his estimate of the extent of that provision, it would be much safer to allow too much than too little; for as the application of the funds will always be directed by the beneficent wisdom which has created it, the excess may at any time be applied to other purposes, equally worthy of the original intention, and equally conducive to the happiness of the Province; but it will be difficult and perhaps impossible, if the present moment be neglected, to find at a future period the means of effecting the object before us, without much expense and a delay almost subversive of the purpose.

Under this impression, the Board proceeded to consider in detail the purposes to which the proposed fund should, when raised, be applied, and seemed to be unanimous in thinking that they may be reduced to three:

- 1st. The erection of the necessary buildings;
- 2d. The payment of the salaries of the masters;
- 3d. The keeping of the buildings in repair, the purchase of books and philosophical apparatus, and other purposes essential to places of education, but in general too costly to be provided by individuals.

1st. With respect to the sum to be expended on the erection of the necessary buildings, the Board conceived, that taking the average price of labour in the four Districts of the Province, the sum of £3000, provincial currency, will be sufficient to erect a plain but solid and substantial building, containing a School-room sufficient to hold an hundred boys, without danger to their health from too many being crowded together; and also a set of apartments for the master, large enough not only for the accommodation of his family, but also for the very desirable purpose of enabling him to take a few of his pupils as boarders. Some few outbuildings may also be necessary, for the use of the master, which, if they will not come within this estimate, will not much exceed it, and may easily be provided for hereafter.

2d. As the extent of the salaries of the masters is expressly reserved for the Royal consideration, we do not presume to mention any particular sum as sufficient for that purpose; but as it is necessary for us in making our estimate, to calculate upon some given sum, and as His Excellency the Lieutenant Governor,

thought the sum of £100 provincial currency, a sufficient allowance for the master of the school erected under his auspices at Kingston,—we beg leave to take that sum as the average for the salary of the masters of each school, and half of it for the salary of an under-master, in case it should be thought expedient to have one.

3d. The sum of £30 per annum seems to be a sufficient sum for keeping the building in repair; the provision for the purchase of books, philosophical apparatus, &c., relates to the endowment of the University rather than to that of the Grammar School, and is only mentioned that it may not appear to have been forgotten in our calculation.

It appeared, therefore, to be the general opinion of the Board, that a sum not exceeding £3000 provincial currency, and an annual income of £180, will be amply sufficient for the establishment and support of a free Grammar School in each District.”

The next explicit view taken of the subject, was in 1831, and has already been referred to in a previous page of this article in connexion with the foot-note thereto appended; but we cannot resist adding beneath a more extended extract from the justly strong observations made in the Report of the select Committee of that period, already alluded to:—

“From this condensed view of the proceedings of the Executive Council on the munificent provision for the diffusion of Education in this Province, the Committee are struck with the singular fact, that no apparent benefit has resulted to the inhabitants of the country from the school reservation, for a period of 30 years; and that the original intention of the Legislature, expressed in the joint Address to His Majesty, as well as His Majesty's most gracious desire to meet their wishes by the establishment of Free Grammar Schools in those Districts in which they are called for, and in due process of time to establish other seminaries of a more extensive nature, have hitherto, as far as your Committee can judge, been lost sight of; and for no other reason that your Committee can discover, than that a School has, by an act of the Legislature, been already established in each District, with a salary of £100 to the master. But this very limited provision, your Committee respectfully submit, ought not to deprive the people of their just claim to a participation in the benefits of the School Lands; and to that end the Committee suggest, that the House ought now to address His Majesty, setting forth the great value of those lands, and the ample means which they afford to carry into effect the benevolent intentions of His late Royal Father, by an endowment from their proceeds for each District of at least £400, which added to the present appropriation would support eleven respectable seminaries, where the youth of the Province generally might receive a liberal education *without being removed many hundred miles from the tender care and watchful authority of their parents*, as must be the case if those lands are exclusively applied to establish and support King's College or any other extensive University, which can only be viewed as of benefit to those whose wealth enables them to bear the great expense of sending their children to the capital of the Province.”

With such strong and authoritative opinions on record as the above, it might have been reasonably expected that some decisive action on so important a subject, would have ere long been taken; but alas! such was the fatality attending every movement in its favour, that nothing farther was done till 1840, when the Commissioners appointed by Sir George Arthur to inquire and report on Education, as a branch of the Public Departments, felt constrained to take some notice of Grammar Schools, but in terms that seemed rather to imply, that they regarded them as actually in existence, and the system requiring amendment, than as being in reality still in embryo—unless, indeed, the District Schools were already considered to have usurped their place. In a subsequent part of their Report, however, the same Committee expressed a more tangible opinion with regard to

the erection of Grammar school-houses, when they recommended a fund of £5000 each for that purpose, to be raised jointly from the school lands, taxes, and shares. But there the matter ended.

The last abortive Legislative attempt in favour of Grammar Schools, took place during the late Session of Parliament, on the unsuccessful introduction of the awfully perplexing University Question; when, among other things, it was proposed that a sum yielding £350 per annum should be set apart from the Education Fund, or University spoils for the establishment of a respectable Grammar School in each District.\* As far as the amount of that allotment, and the purposes contemplated are concerned, we readily concur in the arrangement; but *not*, as in any respect connected with the settlement of the University Question, with which we conceive the provision for Royal Grammar Schools has nothing to do—these institutions having an entirely distinct, as well as undeniably *prior*, claim upon the Legislature, entitling them to be taken into altogether separate consideration, as the first great educational boon bestowed by the Sovereign on the people of Upper Canada.

We have so very far exceeded the limits which we had prescribed to ourselves, that we are reluctantly compelled to postpone the conclusion of our remarks to a future occasion, and we find it the more convenient to do so at this stage of our observations, as we propose that the sequel should bear principally on the state of things in Lower Canada, or at all events, be equally applicable to both Provinces. All, then, that remains to be added in concluding the present article is, that we have been led to lay so much stress on the persevering Legislative neglect of the Upper Canada District Grammar Schools, from viewing them as the legitimate higher branch of general primary instruction, to the advantages of which every citizen's child may justly aspire, without aiming at a superior and more expensive Professional or University Education, and which was, therefore, intended to be placed within the reach of every respectable settler in every District of the Province; and consequently, regarding it as of great importance to the people, that the long-continued injustice and neglect which have been shown towards this solid, yet ornamental branch of popular instruction, should be brought conspicuously before the public at this particular crisis; so that our new Representatives may have no excuse for either again overlooking or postponing a definite arrangement on the subject at the approaching meeting of Parliament. Should our efforts be crowned with the success which so great and excellent an object deserves, we shall ever look back with satisfaction at having humbly led the way in so good a cause. Should we, after all, be destined to fail, we shall still indulge the hope that we have not struggled

altogether in vain; and even at the very worst, we may be allowed to assume as our motto—that we have failed in a laudable effort; or, in more classical phrase—

Magnis tamen excidit ausis.

L.

*A new Medical Dictionary, containing an Explanation of the Terms in Anatomy, Physiology, Chemistry, &c., &c., with the Formulas of the Principal Pharmacopœias, and Valuable Articles on the Treatment of Disease, on the Basis of Hooper and Grant, Adapted to the Present State of Science, and for the use of Medical Students and the Profession.* By D. PEREIRA GARDNER, M.D., &c., &c. New York: Hooper & Brothers. Svo. Pp. 686.

Dictionaries are invaluable works of reference, and should therefore occupy a place in every library. The work of Dr. Gardner is a decided improvement on that of Hooper and Grant, and furnishing the meaning and etymology of almost all the words at present used in scientific works, it presents itself on these grounds to the favourable notice of the profession at large, but especially to students, whose labours it will most materially assist, and to both of whom we cordially recommend it.

## PRACTICE OF MEDICINE AND PATHOLOGY.

*On the advance of the Asiatic Cholera; with suggestions for its Treatment.*—By CHARLES W. BELL, Esq., Manchester.—The near approach of cholera, together with your challenge to the profession, to determine upon the principle which is to guide the treatment of that disease, induce me to venture on expressing the views which peculiar circumstances, and much experience of its management, have led me to form; and to state the practice which, all throughout the progress of the cholera that appeared in Persia in 1842 and 3, proved successful in some thousand cases.

It is true that the type of disease in that epidemic was mild in the generality of cases, but it was the commencement of the identical cholera that is now approaching us; and, if changed now, is changed probably only in degree, not essentially in its nature; and as treated by the native practitioners was almost always fatal.

It reappeared irregularly in Persia in 1844-45, and again, with greater virulence, in 1846; while in the present year, forsaking the Eastern provinces of that country which it had scourged, it passed on, as in 1831, to the Russian provinces of Georgia and Circassia, and into the Turkish province of Armenia.

In Southern Asia, after confining its attacks for two years to the Southeastern provinces of Arabia Mesopotamia, it has now advanced and crossed the Red Sea into Egypt on the one hand, and on the other, overspreading Asia-Minor up to the coast of the Levant; now threatening Greece, and it is said has already appeared in Constantinople. Meanwhile, passing to the north of the Caucasian range, it has arrived at Riga, and also penetrating Circassia from Teflis, it has crossed the mountains, and arrived at Verouish, the most central town of Southern Russia.

Again passing through Turkish Armenia, it reached Trebisonde, and thence crossing the Black Sea, arrived at Varna, the mouths of the Danube and Odessa; and already single cases are reported at Vienna.

\*It was proposed that a fund should be set aside, yielding to each school £350 per annum, to which it was supposed £150 more would be added from tuition fees—making in all £500, which would allow of £200 to a principal, and £150 each to two, or £100 each to three under-masters; and also, that the sum of £500 should be granted to each District that should raise one-half that amount for the erection of a school-house; and further, that a Model Agricultural School and Farm should be attached to each Grammar School, with a practical farmer at its head.

Thus, instead of the limited course which it pursued in 1831-32, confined to Russia, Prussia, and Denmark, till it finally reached England, and only returning in 1843-44, and 45, upon Austria, Saxony, Southern Germany, France, and Italy, and attacking them in the irregular manner in which it is wont to revert to places that it had left intact in its first progress,—it is now advancing upon the whole of Europe at once by five different routes, and appeared in as many points in the extended line between Greece and Riga.

We have, therefore, reason to fear that its future progress may be marked by a virulence proportioned to its extended front and uniform progress. Under such circumstances, I hold it to be an imperative duty in any one who has had an opportunity of studying the disease, to add what he can to the imperfect knowledge that we possess on the subject; and I venture to hope that these considerations will excuse me for throwing aside much of the diffidence that I should otherwise have felt in publishing my own views and until they should be further confirmed.

It was my good fortune first to study the disease under my cousin, Mr. G. H. Bell, in Edinburgh,—author of what appears to me to be incomparably the best work on the subject that I have met with. I afterwards saw the disease in London, when it was the fashion to treat it on Dr. Stevens' system of endeavouring to supply the exuded serum of the blood by the administration of salt and soda. After this, all the experience I had of it was a chance case in Bombay, till 1842, when a series of epidemics of peculiar character commenced in Persia, where I was attached to the embassy, and was in medical charge of the Persian army.

The first of these was dysentery; then a peculiar periodical disease, till then undescribed, attended with intense disturbance of the circulation and the nervous system;\* which also appears to have been observed at Strasburg. Then came tropical remittent, then congestive ague † and this finally terminated in true Cholera.

To this series of disease I am indebted for being led—as I cannot but think I have been—by a species of natural analyses, and by easy transitions, to a clearer insight into the nature of the disease; and to a practice, unbiassed by theory, and simply arising out of the process of accommodating my remedies to the changing type of disease: which then proved successful in every case I attended, where the feet had not already become warm, while the legs and body remained cold.

This is a symptom which my whole experience teaches me to consider as a sign of actual death. In this most authors of experience bear me out, and I have invariably found that every interference with the patient who presented this fatal symptom only increased the spasms and suffering, and hastened the consummation.

Almost every intelligent author on this subject has classed cholera with the cold fit of ague—as, indeed, the whole of its features render nearly inevitable; and viewing it in this light, the rationale and use of bleeding, as recommended by Mr. Bell and other authors, could not be better laid down than it is in his work on Cholera Asphyxia. Yet among these authors I have searched in vain for a single statement that cholera is—what I am satisfied it will invariably be found to be—a congestive ague of quotidian type. All whose works I have read consider it as, in its whole course, merely the cold fit of an ague, and that the fever which occasionally succeeds to it on recovery is the hot stage.

In my belief, no single paroxysm of ague of any kind ever occupied more than twenty-four hours in passing through all its stages, and, according to my experience,

(whenever its progress is sufficiently slow to run that course) invariably completes an entire paroxysm within that period, consisting of the congestive or cold stage, and the remission. The stage of reaction which follows congestion can scarcely be said to exist in cholera, and the sweating stage, or stage of relaxation, is only occasionally perceptible, being so little marked as to be nearly undistinguishable from the short period of remission or intermission, but in every case of the epidemic which I had most opportunity of observing, there was invariably a diurnal remission and quotidian accession; and I am greatly inclined to believe this universal in all forms of cholera, where not prevented by previous death or cure.

This, sir, will doubtless appear to you a very bold assertion, and I am aware that it is one which, without the stethoscope at the bed-side of the patient, will be most difficult to verify, seeing that the chillness of the surface is almost as great in this stage as in that which precedes it: at the same time it is very valuable, and will at once indicate a principle for the guidance of the practitioner, which will induce the utmost confidence in his plan of treatment.

The symptoms of these stages are so little marked as to require the most attentive observation to distinguish them, and until the opportunity shall present itself of actually looking for them, I do not expect to be credited, and all that I can hope for at present, from those most conversant with the disease, and who have not as yet entertained this view, is, that they will at least give it their consideration, and try to recollect whether in the more protracted cases that have fallen under their treatment, they have not observed that the patient, after tossing about for many hours in an agony of suffocation, seems at last exhausted, and after long jactitation and continuing to throw off every covering he at last for a short period remains quiet and submits to the load of the bed-clothes. This temporary repose is in most cases almost the only symptom, except a more tranquil action of the heart, that marks the intermission, and forms the most obvious and almost the only guide to the essential part of the treatment of a severe case. In a very short time this period of comparative tranquillity ceases—the patient begins again to yawn, to throw up his arms like one bleeding to death, and in a few minutes more to toss about again, and show every symptom of suffocating agony.

These symptoms of the return of the congestive stage have, in the mass of my cases, appeared exactly twenty-four hours after the first accession, inasmuch that I invariably made a point of seeing my patient some time before the hour of the commencement of the first attack, and selected it as the moment for the successful use of the lancet, where that fearful but powerful remedy was necessary. But does it indeed require all the sudden and perfect restoration to health which attends its use, to compensate for the first anxious moments of suspense until the blood begins to trickle, or to reconcile the practitioner to such a measure? for when the first few drops ooze from the wound, they seem the harbinger of immediate dissolution; but when its flow is once established, and the patient is at once restored to health, no triumph of art and just principle can exceed it. Latterly, however, I was not in the habit of waiting so long; when the repose of the patient had been well marked for a short time, I bled, with much less difficulty in obtaining blood—with much less struggle and danger to the patient, and with equal success—forestalling, instead of combatting, the anticipated period of fatal congestion.

In the remittent, and afterwards in the intermittent fevers which preceded the appearance of cholera in 1842, I found quinine alone, so far from relieving the symptoms, invariably aggravate all of them. I was led by circumstances to administer it in combination with iron, with complete success; and when by almost insensible transitions the epi-

\* Vide Medico-Chirurgical Transactions, for 1842.

† Vide British and Foreign Medical Review, 1843; a paper on Congestive Ague, or Fainting Fever, written for the Russian Government by the author.

mic merged into cholera, I continued the same practice. I had the pleasure to find that the first doses of a combination of sulphate of quinine, sulphate of iron, a few drops of sulphuric acid, and often a little sulphate of magnesia dissolved in water, immediately checked the vomiting and diarrhoea; and this I have found equally successful in the only case of true cholera I have met with in England. It occurred in the autumn of last year. The woman, who had previously suffered from the epidemic of 1833, was attacked on her way from Crewe to Manchester, and had been labouring under cholera for eight hours. I found her cold, blue, purging and vomiting the rice-water evacuations, and cramped, with cold clean tongue, and feeble pulse. She had taken large doses of morphia, which were immediately rejected; but the first dose of the above medicine checked the vomiting, and she was well in a few hours.

In all the mild cases in Persia this remedy was of itself sufficient to cure: it was repeated very frequently in general, but some of the most rapid cures I afterwards learned had been effected by swallowing at once the whole of what I had intended for nine doses. Its good effects were generally immediately indicated by diminished anxiety, returning warmth, proceeding from the chest to the extremities, recommencing secretion of urine; but in cases of severer character it was found necessary to relieve the congestion by the abstraction of blood from a vein; and in doing this all depends upon the period at which bleeding is resorted to. If early in the congestive stage, or just previous to its second accession, it is invariably successful; if just as the congestive stage is passing off, when the pulse begins to require a little power, it is invariably fatal.

Before proceeding further, or considering the appropriateness or the contrary of the remedies most lauded in cholera, viz. opium, stimulants, antimonials, artificial heat, or cold effusion,—it will be necessary to consider what takes place in an attack of cholera, that, from its etiology, a theory of treatment may be deduced to point the indications and to defend the treatment, which I have ventured to advise; for though arrived at rather by practice than by theory, it is impossible that it can command attention unless borne out by reason.

1st. With many able authors, I hold cholera to be merely a form of ague; and, in addition, I maintain its type to be quotidian.

To determine the nature of ague, therefore, if this position be true, is to determine both the nature and treatment of cholera. To do this, it is necessary to have a clear conception of what is really essential in an ague.

In the first place, I may venture to premise that I have enjoyed very ample opportunity of seeing ague in every variety of type and degree of severity; yet I have never seen a single attack of any kind of ague in which the whole cycle of its stages—that is, in which each individual paroxysm—was not completed within twenty-four hours. I have often witnessed several paroxysms completed within that time, but never one incomplete; and I have never met with a description of an ague in which the paroxysm exceeded twenty-four hours duration, except where the author would appear to have considered Asiatic cholera to be such an ague.

2dly. The congestive or cold stage is the only essential which is never wanting in ague. It may be severe or slight, partial or general,—be with or without shivering; but in ague, and every disease allied to it, such as masked and

misplaced agues, as they are called, periodical headache, and neuralgia and all the remittent fevers I have yet met with, this stage is never wanting, though sometimes obscure. The second or hot stage may or may not occur; reaction may, and often does, take place quietly, and without fever, and unaccompanied by a period of relaxation or sweating. This condition frequently occurs in what is called the fortnight ague—a form with which all who served in the late campaigns in Scinde are well acquainted, where the shivering is severe and hysterical, but where the febrile and sweating stages are often entirely wanting; and yet this is the form most remarkable in its periodicity, and in its return, for one or more days, every fortnight, just previous to the lunar changes.

In other forms, more especially the quartan, all three stages generally prove exceedingly severe, and in this form the period of relaxation may perhaps pass the twenty-fourth hour from the accession, but I have not seen it do so, and I should be inclined to define ague as a paroxysm of congestion of the internal veins, subsiding within twenty-four hours, and often followed by febrile action and relaxation of the capillaries. It appears to consist in a gradual change in the action of the extreme capillaries, and apparent constriction of them, by which the blood is rapidly driven inward upon the great veins. When this has reached to such a point as to oppress the action of the heart, yawning first, and then shivering, or a sense of suffocation and pain in the præcordia, are the indications of oppressed circulation, and of the commencing effort of the heart to overcome the mass of blood which is stifling it. If by application of tourniquets to the limbs, or by bleeding, part of the blood which is rushing from the extremities to increase this congestion is prevented from reaching the great veins,—the heart, excited to increased action, is enabled by this relief more quickly to overcome the obstruction and restore the balance of the circulation, and the paroxysm passes off. If not thus mechanically aided, the heart, after a severe struggle to maintain the circulation during the period of constriction, is at length relieved, by this nervous disturbance or spasm of the capillary circulation passing off of itself, and then the heart and arteries, so long excited by the struggle, maintain for a time their increased action after the obstruction in the capillaries is removed, and produce apparent febrile action. Presently this excitement subsides; the vessels become relaxed, and sweat succeeds. The vessels continue in this state for a longer or shorter period, according to circumstances, till they at length recover their ordinary tone and action in the intermission. This fever, however, is not fever properly so called, but reaction; and the sweating not critical or essential, but relaxation. The cold stage is alone essential, and is the physiological cause of the subsequent stages.

If this be admitted, it is obvious that our whole attention must be devoted to the study of the phenomena of aguish congestion, in its commencement, its progress, its mechanical effects on the organism, and the natural means by which it subsides or is overcome; and, lastly, in its tendency to periodical return, if we would obtain a clear perception of the nature of cholera. Before, however, we enter into these considerations, and the ratio medendi, it may be permitted to us to diverge for a moment to consider the question of contagion, and inquire how far ague and cholera resemble or differ from the whole class of contagious fevers, so as to justify us in chiming in with the popular opinion of its infectious nature, or in entertaining views to the contrary; for where popular feeling is strong on such a subject, abundant evidence is easily found to support their opinion of apparent facts.

Of the exciting cause of cholera we know little or nothing, and not a great deal of ague. The latter is known as a disease of marshy countries, but it is also the most prevalent disease in the driest countries in the world; for example,

I have latterly been in the habit of considering shivering as a favourable symptom—an indication that the power of the heart is sufficient to overcome the congestion. If this be insufficient to produce shivering, the after-symptoms are severe; if such as to overpower this symptom, the congestion itself is always dangerous.

the whole of central Asia, the deserts of Arabia, and of Africa, of some of the most elevated regions of Italy, &c. &c. A hundred years ago ague prevailed throughout Britain and Ireland, but it has now equally ceased in the most improved and well drained parts of Britain, and the most neglected of Ireland; and no one can say that an improved mode of living among the peasantry of that country is the cause of its disappearance; yet no one considered ague infectious. Marsh miasm, then, if a cause, is evidently not the only cause of ague; and among others, one of the most obvious, in eastern countries at least, is subterranean volcanic action; whether by means of exhalations, or the electrical effects of subterranean chemical action, it would be difficult to say, but I have seen it and remittent too often precede or arise with earthquake, to have any doubt on this subject. Whatever its cause, however, most people are inclined to attribute it to a terrestrial origin; but, however we view it, it must be conceded that it was once endemic in England, and is not so now; yet ague will march across countries as steadily and extensively as cholera.

The remittent fever of 1842, in Scinde, ending in ague, proceeded in a direct line through Beloochestan, right across Persia, Georgia, Circassia, and southern Russia, and gradually losing more and more of its intermitting character, appeared in Edinburgh as a modified remittent, with a tendency to periodical relapse, and is described in your journal under the title of the Scotch Epidemic. This remittent tendency continued in 1844 and 1845 to influence the type of fever in Scotland, Manchester, and Liverpool in these years.

In 1843, in the Asiatic part of its course, this remittent and intermitting assumed the shape of cholera. In 1846-7, cholera there became a scourge, while in this country we only slightly perceived the influence in the increased tendency to intermitting neuralgia, and the secretion of oxalates in the urine, &c. If, then, cholera is propagated by contagion, is it possible that its approach alone, and before its advent, should so markedly be perceptible in the character of the prevalent diseases, or could it continue to influence them after its disappearance, when confessedly no contagion prevails? Yet it has been remarked by some of our most experienced authors that, ever since the first approach of cholera, the fevers in this country have materially changed in their type, and the use of the lancet in fever, formerly so beneficial, has now become obsolete. These considerations tend to show that (ague and cholera being so nearly allied) there is no reason why cholera should not for a cycle become as endemic in this country as ague formerly was, and as it has, in fact, become in India since its appearance there in 1767.

But let us examine the action of the poison, whatever it may be that produces ague or cholera; in its effects on the system, as compared with those of contagious fevers, including the exanthemata, and other fevers produced by animal poisons, and whether there is any evidence of its elimination from the system by similar febrile action.

I presume I shall not be going too far in considering continued fevers as the reparative process by which nature eliminates the poison by appropriate organs—the skin, the bowels, &c.; and it will not invalidate this position, that death occasionally occurs through the violence with which this action falls on a particular organ; for if the organs fail to eliminate the poison, and thus protect the nervous centres, death takes place through the nervous system.

It is not so in ague and cholera; in the latter the brain is the last to die. There is no evidence of any poison being eliminated by the action, or any special secreting organ being affected. An ague fit will sometimes pass off without fever or sweating, a cholera attack sometimes without even purging, and leave no evidence of a poison lurking in the system. Whatever the cause of the disturbance of the circulation that produces the congestive stage in these diseases,

the fact of an immediate cessation, or a complete intermission of its effects, is almost conclusive that it cannot be, as in other fevers, a poison circulating in the blood, exciting a reparative action, but the effect of a cause acting on the powers which circulate the blood, independently of a change in the blood itself, and most dissimilar to anything that we perceive in the ordinary course of contagious fevers.

We can scarcely doubt that the congestion of ague takes place through an influence of the sympathetic nerve on the minute capillaries; but till we are better acquainted with the powers which circulate the blood, with the changes which that fluid undergoes in passing through them, and with the effects of electricity upon them, we cannot expect to arrive at a knowledge of the exciting cause of these diseases; but we do not, in the nature of the disease, find a single argument for believing that either ague or cholera eliminate from the system any morbid poison to render them communicable from man to man: although in both we find some reason to believe that that powerful agent, electricity, of which we are as yet so ignorant, has much to do with them, and perceive some evidence of a connection with the terrestrial currents as affecting their periodicity, and with the electrical phenomena that accompany the lunar changes, &c., &c., as affecting their relapse.

The direct evidence in favour of non-contagion has always appeared to me infinitely to preponderate over that to the contrary; and I know none more conclusive than the fact of its penetrating the triple cordon sanitaire established by the Prussian Government on the Oder in 1831 at exactly the same rate, four German miles a day, that it proceeded at both before and after its encountering what was expected to prove so formidable a barrier to its progress.

While on this point, however, it would be wrong to pass over a remarkable point which many cases published in the periodical medical journals confirm—that where fever is sporadically induced by accumulated filth, especially decaying vegetable matter, such as stable manure, the type of fever that results is the most exaggerated specimen of the type of the fever that prevails at the time; and thus it happens that people from the same neighbourhood are so rapidly affected by a prevailing non-contagious malady as to present every appearance of having received it by contagion.—*London Medical Gazette.*

*Nature of the Fæcal Evacuations in Cholera.*—By M. ANDRAL.—Among the alterations found in the solids and fluids of the body in patients affected with cholera, there is one which belongs especially to this disease, and which is characteristic of it, namely, the existence within the intestinal canal of a peculiar white fluid, very similar to water in which rice has been boiled. This material, which is sometimes found in large quantities in the intestines of persons who have died of cholera, and which constitutes the

\* Sir Charles Bell, in his Essay on the forces which circulate the blood, has shown that some peculiar condition of the inner coats of the vessels, and some vital property, must be in operation during life to prevent coagulation of the blood; and to obviate that capillary attraction, which prevents even water penetrating the capillaries of the dead body, though urged with the utmost force that the vessels will bear without rupture. Professor Sir John Leslie, in his Lectures on Natural Philosophy, used to exhibit a remarkable experiment which bears on this subject. Filling a thin wooden cup with mercury, no particle of it penetrated the pores of the wood, till, by passing a current of electricity through the cup, he overcame the capillary attraction, and the mercury fell through it in a shower. I have successfully availed myself of this principle in making mercurial injections of the rete testis, suspending from the prime conductor of an electrical machine. It does not seem too much to believe that the sympathetic nerve may exert some such power on the blood-vessels.

alvine evacuations during life, consists of a muddy liquid, capable of being rendered transparent by filtration, and within which are suspended, in greater or less abundance, lumps of opaque white matter, perfectly untinged by bile. Concerning the nature of this particular fluid, it has been considered to consist of the serum and fibrine of blood escaped from its vessel and poured into the intestinal canal. The fluid portion of this material has been conceded as the serum of the blood; the solid tumous portion, as the fibrine. According to this view, an explanation is afforded of the peculiar characters presented by the blood in cholera; and it is considered by many, that the blood, thus deprived of much of its serum and of its globules, can no longer traverse with readiness the different capillary networks of the body, and that thus many of the peculiar symptoms presented by this disease may be explained. The facts, however, on which such an opinion was founded, not having been sufficiently proved, M. Andral was induced, by the occurrence of several cases of cholera in the hospitals of Paris in 1846, to submit to careful examination the matters passed from the intestines. After having filtered this intestinal matter, and thus separated it into two portions, the one liquid perfectly transparent and colourless, the other solid, consisting of a number of particles agglomerated together, he treated the liquid portion with alcohol, nitric acid, and heat; but by none of these reagents was a precipitate formed; consequently there was no albumen. The results of an examination of this liquid portion by M. Favre also showed that the organic substance contained in it possessed none of the characters of albumen. This proves, therefore, that the serum of the blood does not enter into the composition of the materials ejected from the intestines in cholera. Like the serum, indeed, this fluid was highly alkaline; but this is a character common also to many other fluids of the economy. The contents of the intestines also are usually alkaline, and the alkalinity is not more marked in cholera than in many other diseases.

Moreover, if the intestinal secretion in cholera is essentially composed of albumen, the quantity of this material in the blood ought to be found considerably diminished, as it is in certain affections of the kidney attended with the transmission of albumen through these organs. The diminution, indeed, in cholera ought to be much greater than in such renal affections, because the quantity of secretion poured from the intestines is very large. But M. Andral having examined the blood in all stages of cholera, finds that the proportion of albumen is almost unaltered, neither manifest increase nor diminution being found. He has obtained equally decisive proof also of the non-existence of fibrine in the intestinal secretions in this disease. No trace of a filamentous texture could be detected by the microscope in the solid masses evacuated. These solid masses he finds to be composed of numerous nucleated and nucleolated cells, closely resembling pus-globules. Besides these globules, which were very abundant, the masses contained also numerous particles of epithelium. It would appear, therefore, from the results of his examination, that the white matter discharged from the intestines in cholera consists essentially of a mucous secretion in enormous quantity, and so far altered in quality as to contain an abundance of corpuscles in all respects similar to pus-globules, and to which the white appearance of the secretion is due.—*Comptes Rendus*, 9 Aout 1847, in *London Medical Gazette*.

*Treatment of Obstinate Hiccough by Prolonged Compression of the Epigastrium.*—Dr. Boyer relates three cases of prolonged and alarming hiccough, which, having resisted all the usual means employed for its relief, were relieved by the application of pressure, a practice first suggested by Borden, and since revived by M. Rostan. A large pad is

laid on the epigastrium, and bound forcibly on by means of a towel or bandage. It generally causes instant relief, but if discontinued too soon the hiccough returns. It is usually necessary to wear it for twenty-four hours, before it can be safely removed.—*Revue Medico-Chirurgicale*.

## SURGERY.

*Erysipelas.*—From *Lectures on Surgery in the London Medical Gazette*. By BRUNSBY B. COOPER, F. R. S., &c.—You may consider this subject, gentlemen, as belonging rather to the province of the physician than to the surgeon; but erysipelas so frequently follows local injury, that, unless a surgeon is acquainted with the phenomena connected with this disease, and the appropriate treatment for their relief, he would constantly be obliged to transfer the care of his patients to the hands of the physician. In fact, no better instance than erysipelas can be adduced to prove the necessity for a surgeon to render himself thoroughly acquainted with loco-constitutional disease.

Erysipelas is an inflammation of a very peculiar character, attacking the external surface of the body, and indicating all the usual signs of a morbidly increased action, attended with redness, heat, swelling, and pain, each of these offering characteristic marks. Sometimes it seems to attack the skin only, unattended with any concomitant constitutional disturbance: it is then termed erythema.

The redness of erysipelas is remarkable, on account of its sudden disappearance upon the slightest pressure, leaving a white spot; but the redness almost instantaneously returns upon the removal of the force. The intensity of the colour varies very much in different cases, and this variety depends more upon the constitution of the patient than upon the severity, or any peculiarity in the disease itself.

The heat of the affected part is of a burning character, and is described by the patient as producing a dull pricking, or rather tingling, sensation. The degree of swelling depends upon the circumstance of the sub-cutaneous tissues being affected or otherwise; for, when the skin alone is inflamed, there is little or no swelling or tension, and, in fact, the inflammation is at this period to be considered as merely erythematous; but, immediately upon the implication of the cellular membrane, swelling becomes a prominent feature of this disease.

The pain is seldom acute, but is said to resemble a tingling stiffness, and it produces invariably a restlessness which is highly characteristic of the disease. If pressure be applied to the inflamed part, the pain and uneasiness are very considerably increased. The local symptoms are generally preceded by considerable constitutional disturbance—such as pain in the head, full pulse, loss of appetite, rigors followed by dejection; debility, sometimes vomiting, and early delirium, if the head be the seat of the disease. Although these symptoms likewise frequently attend common pyrexia, there is something so peculiar in their nature—so sudden in their development—that every experienced nurse in an hospital recognises them as premonitory signs of erysipelas.

Medical writers have distinguished erysipelas by the terms phlegmonous, bilious, and local or erythematous. Were I to take this detailed view of the disease, I admit, gentlemen, that I should be rather encroaching upon the province of the physician. I shall therefore dwell especially on the phenomena resulting from local injury—"traumatic erysipelas."

The question naturally arises, whether injury to any tissue can in itself produce the specific action of erysipelas without accessory constitutional predisposition. I am myself inclined to reply in the negative; for I believe that this disease is the result of a constitutional derangement, arising chiefly either from epidemic or endemic causes; for how frequently is it observed in this and every other hospital, that, when one patient has become affected with erysipelas, others are found liable to its attacks from causes much too slight to be considered capable of producing the like result under ordinary circumstances. This is so well known, that every hospital surgeon postpones the performance of surgical operations even after the patient has been prepared for the ordeal, if he is aware that erysipelas is present in the ward.

It is quite true that a healthy person would probably resist the



infection; but, under the depressing influence inseparable from an operation, it would be incurring an unwarrantable risk to expose a patient to the continued influence of such a poison, particularly if the case is one which will, under any circumstances, admit of delay.

There is certainly a peculiarity in traumatic erysipelas, with respect to its so frequently following wounds of the head and face; and I consider that this may depend upon the insertion of all the muscles of this region into the skin, the tissue invariably first affected by this peculiar description of inflammation.

Hence, in the case of persons suffering from an attack of erysipelas in the face, the most complete state of quietude, and absence of all mental excitement, are desirable, as affording the only means of preserving these muscles in a perfect state of rest, as they are immediately put into motion by the operation of almost every external circumstance, or by the least mental disturbance.

Another peculiarity in erysipelas, not yet alluded to, is its erratic tendency, or what is technically termed "metastasis," which constitutes one of the most remarkable features of this complaint.

The consideration of this fact forms a very important point in regulating our practice, and especially in erysipelids of the head; for, however proper it may be to attempt suddenly to subdue erysipelatous inflammation of the limbs or trunk, by the application of evaporating lotions, or any other means of abstracting the abnormal heat of the affected part, such treatment is quite inadmissible in erysipelids of the head or face, owing to the danger of producing metastasis to the membranes of the brain.

I have more than once seen a patient delirious a few hours after cold had been applied to an erysipelatous scalp, and restored as quickly to consciousness by the substitution of warm fomentations for the evaporating lotion. The rationale of this is sufficiently obvious: the action is due to the free anastomosis between the vessels of the pericranium and of the dura mater, through the substance of the bones of the skull; so that any cause that propels the blood from the pericranium must produce a proportionable influx into the vessels of the dura mater.

Patients attacked by erysipelas (more especially in this metropolis) bear depletion very badly, and there are but few cases in which general blood-letting can, in my opinion, be admissible.

Leeches should never be employed in erysipelas, as their bite becomes a fresh source of irritation; and, indeed, it is frequently the exciting cause of this peculiar character of inflammation.

The only antiphlogistic plan, therefore, left, is that of acting upon the secretions, which effect is readily produced by employing the following remedies:— $\mathcal{R}$  Hyd. Chloridi, gr. iss.; Pulv. Jacobi veri, gr. iij.  $\mathcal{M}$ . ft. Pilul.; Magnes. Carbonat. gr. x.  $\mathcal{R}$  Sodæ Sesquicarbonat.  $\mathcal{O}$ j.; Vin. Ipecac.  $\mathcal{S}$ ss.; Mist. Camphoræ,  $\mathcal{Z}$ j.  $\mathcal{M}$ . ft. Haustus adde Succ. Limonis Recentis,  $\mathcal{Z}$ ss. et in statu effervescentia sumendus bis terve quotidie. Should the patient evince any typhoid symptoms, ammonia should be substituted for the soda.

If there be much tension of the skin, attended with small blisters, without remission of febrile symptoms, it should be punctured in several places, to allow of transudation of the effused serum. This operation generally affords great relief. With respect to the long incisions recommended by some surgeons, I consider that practice to be worse than useless, unless there be extensive sloughing of the cellular membrane, which will very rarely occur if punctures be made as soon as the necessity for such relief is indicated by the tension of the skin; and, indeed, I have known fatal sloughing sores induced by the practice of incisions, and in more than one case death occurred from the hæmorrhage immediately resulting from the operation.

When erysipelas becomes diffused, the vivid discoloration of the skin diminished, the tongue dry, and the general signs of debility manifested, stimuli are required; but in common cases generous support is preferable to stimulus: I therefore usually prefer porter to wine or brandy, excepting under the circumstances above mentioned.

Where the inflammation of erysipelas has a great tendency to spread, it has been recommended to attempt to check its course by cauterising with lunar caustic the skin above the inflammation. Some have recommended mercurial ointment to be employed with the same view; and indeed I have seen both of them produce beneficial results by circumscribing the extent of the inflammation. I presume that the lunar caustic and the mercurial ointment close the pores of the skin wherever it is applied, and, preventing the natural cutaneous exhalations, set up a new ac-

tion, and so tend to prevent the spreading of the erythematous inflammation; for, as far as I have observed, any other ointment will answer the purpose as well as the mercurial.

This fact would certainly lead one to the belief that erysipelas is, at any rate at its commencement, a cutaneous disease, and the extension to the subcutaneous tissues the result of a secondary action.

Vesicles generally form in those cases which do not terminate by resolution; hence erysipelas has been classed under the order Bullæ, by Dr. Bateman.

In debilitated constitutions, diffused abscesses frequently follow erysipelatous attacks, sometimes even at a distance from the originally inflamed part. Indeed, I have occasionally seen abscesses follow wounds around which no erysipelatous inflammation had occurred, and yet subsequently diffused cellular membranous abscesses have formed in different parts of the body, attended with considerable local inflammation; but whether these could be regarded as erysipelatous affections, I have frequently had much difficulty in determining. What I mean to express is, gentlemen, that it is often very difficult to distinguish the inflammation resulting from the formation of abscess in debilitated patients from phlegmonous erysipelas. In these cases, also, as in erysipelids, the abscesses are rarely limited by an adhesive boundary, but are diffused, indicating the extreme debility of the patient.

When abscesses result from erysipelas, they rarely extend beyond the subcutaneous cellular membrane, and do not appear to lead to absorbent inflammation, probably in consequence of the freedom with which the matter becomes diffused; while, on the contrary, when pus is formed in more deeply seated structures, as in subfascial and thecal abscess, it is pent up by the inextensible tissues, and leads, therefore, to more urgent constitutional disturbance, and requires early provision for its evacuation.

Great care and attention are required after a patient may have apparently recovered from an attack of erysipelas, owing to the great tendency to relapse which generally exists in such cases; and it may, perhaps, be said—at least so my experience leads me to believe—that a person once attacked by this disease is ever after liable to its return from any exciting cause to inflammation—a circumstance which would seem to prove that the disease depends more upon peculiarity of constitution than upon the nature of the accidental injury, or even, perhaps, than upon any epidemic influence.

I have said, gentlemen, that it might be considered a deviation from my province to speak of bilious erysipelas, and other particular constitutional derangements modifying this disease; still do not for one moment imagine that I consider it unnecessary for you to study, and *scrutinously* too, the peculiarities, diathesis, and temperament of your patient; for you must remember that the slightest local injury can never occur without the restorative process being influenced by the age, sex, habit, and constitution of the subject; and whoever fancies that, because he has made himself acquainted with the name of the disease, he can at once apply some well-known appropriate remedy, will never advance beyond empiricism, nor establish his title to be considered in the light of a scientific practitioner; and I would almost say that his practice would be dangerous in proportion to his rapid decision in the classification of disease, if that alone be his aim. After what has been said, as to the tendency to erysipelas following the wounds of the scalp, and skin of the face, let me urge you, gentlemen, to be cautious how you undertake even trivial operations, on these regions of the body, without first having duly prepared your patient for the effects they invariably produce in the system. In some cases you may be requested to remove small encysted tumors from the scalp—an operation so trivial that it may be executed by a mere tyro in the profession—but even the most experienced and skillful surgeon may risk the life of a patient, and his own reputation, by want of a little precaution.

Never, I say, undertake such a task without first well ascertaining the actual state of your patient's health, as to the absence of any organic disease, the condition of the bowels, state of the urine, and natural performance of the functions essential to a healthy state of body.

Several years ago I removed an encysted tumor from the head of a patient. Upon making a mere incision through the skin it immediately turned out, the operation of extracting it not occupying more than a minute. On the third day I considered my patient convalescent; on the fourth I was suddenly sent for to see him, and found that a most startling change had taken place in



his condition. I should not have recognised him; his head was swollen to twice its natural size; not a feature could be discerned; and his complaints were urged in muttering delirium. I immediately ordered him (as his bowels were costive) a large dose of calomel, fomented his head and face, punctured the scalp, and prescribed diaphoretic effervescent draughts. The day following he had but slightly improved, although his bowels had been freely opened, and I immediately proposed a consultation. The gentleman who met me recommended bleeding—a remedy to which he especially trusted in all cases of febrile action. But as the patient had a very dry tongue, attended with delirium, and was complaining of great thirst, muttering in almost inarticulate sounds his desire for porter, I proposed that we should try its effect: this was consented to, and I held a pint of porter to his lips; he drank it off at a draught—soon fell into a sound sleep: when he awoke he was perfectly free from delirium, and from that moment his recovery rapidly progressed.

In relating this case, gentlemen, I do not mean to inculcate the propriety of the invariable use of stimulus, but I do believe that in most cases it will be found a safer remedy than bleeding, more particularly in London, or any crowded city; nor have I formed this judgment from the solitary case just mentioned, but it is an opinion founded upon my own experience and the practice of my colleagues in this hospital as well as in private.

A lady, applied, to an eminent surgeon, to ascertain from him whether a small encysted tumor could be removed with perfect safety from her head; to which he replied, "certainly." The operation was immediately performed, but seven days afterwards she was dead from an attack of erysipelas.

The next case, as the patient was not attacked by erysipelas after the operation, may be considered out of place with regard to our present considerations; I have mentioned it, however, merely to exemplify the necessity of ascertaining the real constitutional condition before you venture to submit a patient to any mechanical lesion.

A short time ago, an individual came under my care with an external pile and a fissure in the mucous membrane of the rectum; he was considerably out of health, and attributed all his ailments to the sufferings he experienced in the passing of his motions, owing to the local disease; he urged me to relieve him by operation. I kept him, however, a week or ten days under my care before I operated, and by soothing remedies had somewhat improved his condition, when I removed the external pile, and drew the bistoury across the fissure, the whole time of the operation not exceeding half a minute. The patient felt immediate relief after the operation; he had little or no pain in passing his motions, but in the course of four or five days he was seized with symptoms of subacute peritonitis; calomel, and opium, and leeches were ordered, but four days afterwards he died.

Upon examination of the body, he was found to be the subject of granular kidneys, (the morbus Brightii) which no doubt had caused his death.

It had been ascertained, during life, by my dresser, that his urine was albuminous; but I considered the severity of his suffering demanded the performance of this slight operation; although the sequel renders it a matter for consideration whether I was right, under these circumstances, in subjecting him to a fresh source of irritation.

From such cases as these you must be impressed, gentlemen, with the necessity of doing everything which the science of surgery can insure, so far as lies in your power, to place your patient in the greatest state of security before you subject him to any surgical operation, and even then never promise that any operation, however simple, will be perfectly free from danger; for depend upon it, it is as unwise to treat slightly the most trifling incisions of the skin, as it is dishonest to attach to an operation more importance than it justly deserves.

Some surgeons suppose that it is better to perform what are usually considered simple operations at the moment, than to allow the dread of anticipation to remain in the mind of the patient, and then proceed to act upon this opinion without any preliminary precaution. There are, however, I believe, but few patients, who will not duly appreciate the cautious recommendation of a surgeon to submit to some little preparatory discipline, and he will gain much more confidence from the patient by this display of his judgment, than from the hasty recklessness which evinces boldness and self reliance, rather than judicious precaution.

THE  
**British American Journal.**

MONTREAL, JANUARY 1, 1848.

COUNTER-PETITION TO THE GOVERNOR  
GENERAL.

We purpose, at present, to examine into the memorial lately presented to the Governor General, which we published in our last number, and to analyze its statements. We know not who all the signers of the memorial are; their names have been studiously concealed. We have heard, however, that a goodly number are not members of the Corporation, and the good sense and taste which they have displayed may be, therefore, accurately appreciated. The proceeding, taken as a whole, is remarkably puerile, and is a beautiful exemplification of what is termed in common parlance, "reckoning without the host." It was a shot fired at—nothing; and would have been a harmless shedding of ink and waste of paper, did not the memorial contain several misrepresentations which it is proper should be at least corrected. Had any occasion *really existed* for such a "counterblaste" against the proceedings of the Board of Governors, we ourselves would have appeared among the protestors; but there should be no protest unless there be something to protest against; something more than *supposed intention*, something done, some act or deed committed, either of an illegal nature or having a bad tendency, before such a proceeding can be brought to bear, or such an act have force. The fitful phantom of a disordered mind possessed a substantiality as real as that against which the memorial was directed.

1st. It is asserted that the present intention of the Governors to submit the rules of the College to the members of the Corporation at Quebec, in May next, was the result of an "order from the Executive" to that effect, consequent upon the presentation of the memorial. This is entirely incorrect. It was in consequence of a legal opinion obtained from the crown officers, and applied for in the early part of the week preceding that in which the memorial was presented.

2d. No rules and regulations being in force, none could be suspended.

3d. The proclamation of the Governor General (paragraph 3 of memorial) did not "summon all the physicians of Lower Canada to meet together on the 15th Sep. last to name governors," &c. It summoned the *first meeting of the Corporation*, appointing, at the same time, the day, and nominating the first President.

4th. The sixth paragraph assigns that the "large proportion of medical men who thus find themselves not members of the College, have been prevented from attaching their signatures to the petition to the Legislature to organize the profession into a college, by want of due publicity given to the proceedings, or from delay in apprising them of the steps taken to attain the object." We happen to know that the utmost pains were taken to give every publicity to the proceedings. Special invitations to sign were addressed to every member of the profession, whose name and residence were known to the Secretary of the Three Rivers meeting of 1846, of which this Bill is the fruit. It was known most extensively among the profession, that at that meeting a committee was formed to superintend the different steps of a Bill, based upon the resolutions adopted at that meeting, to be submitted to the Legislature at its ensuing session. The Legislature met; the Bill passed, modified, however, in some particulars; and it is folly to talk of want of publicity or delay, under the actual circumstances of the case.

5th. Upon paragraph 7 and 8 we have already expressed our opinion.

6th. As regards the fees to the College and their appropriation, nothing is determined.

7th. Paragraph 14. The Corporation can only make rules for its own governance. No physician, not a member of the College or the Corporation, can or will be in the slightest degree influenced by them.

8th. And the 15th paragraph is but the expression of the *opinion* of the memorialists, and may be considered "void and of none effect," or otherwise, in accordance with the value entertained of their legal knowledge and its profundity.

Currency is given to the idea, and the opinion is frequently expressed throughout the memorial, "that the rules and regulations must be submitted to the revision and approval of *all the members of the medical profession*" before final sanction. We are not a little surprised that the memorialists, who have attempted to prove themselves such apt lawyers, should so far willingly misinterpret portions of the Act, as to induce others to believe in the inference which they have drawn. We charitably believe that the blunder lies rather in the heart than in the head, and springs from a feeling of liberality. Now, we are equally as liberal in our views as they are. We have the interests of the profession equally as much at heart; and no one regrets more than ourselves, the temporary disfranchisement, under which a large portion of the profession is now suffering. The Act, however, declares itself expressly on this point, "The said College of

Physicians and Surgeons shall have power \* \* \* to make all such rules and regulations for the government and proper working of the said Corporation, and the election of a President, and officers thereof, as to the members thereof may seem meet and expedient." And again, "the said election either as member of the said College, or as Governor thereof as aforesaid, shall be made under the rules and regulations therefor, and in such manner as the said Corporation shall make," &c. Now, it is clear, that the rules and regulations must be submitted only to the *members of the Corporation*; and as these rules are binding only upon the *Corporation*, exerting no force out of it, medical men not members of that Corporation have nothing whatever to do with them.

We observe by the Official Gazette, that application will be made at the ensuing session of the Legislature for a repeal of the Act. The advertisement is signed by the following Physicians and Surgeons:—Drs. Charlebois, D'Eschambault, Picault, Coderre, Boyer, Wilbrenner, Willsam, Regnault, Dorsonnens, Trudel, Peltier, Leprohon, Sabourin. This is going a little too far. We do not admire particularly the present Bill, but with all its faults, it was an instalment, long due to the Profession; and the Profession would be false to its truest interests, were they to calmly yield it up. Amendments are certainly required in it, and to obtain these we will bend our untiring energy.

LICENTIATES OF THE MEDICAL BOARD OF UPPER CANADA.

John Gilchrist	Jan.	6,	1819
Nathaniel Bell	March	17,	1819
Augustus Miller	July	6,	1819
Edward W. Armstrong	July	6,	1819
Pitkin Gross	July	6,	1819
Anthony Morton	Oct.	20,	1819
George Baker	Jan.	7,	1820
R. L. Cockroft	April	5,	1820
John Vaudepool	Jan.	2,	1821
Oliver G. Tiffany	Jan.	9,	1822
Chancy Beedle	Jan.	9,	1822
Alexander Burnside	April	6,	1822
J. Adamson	July	23,	1822
Andrew Austin	Jan.	7,	1823
Horace Yeomans	Jan.	7,	1823
Freeman Riddle	April	11,	1823
Matthew C. Gilchrist	Jan.	6,	1824
Samuel Gilchrist	Jan.	6,	1824
Samuel Woodruff	Jan.	6,	1824
Stephen W. Stavery	July	21,	1824
Thomas D. Morrison	July	21,	1824
Jabez Kellog	April	5,	1825
Frederick L. Converse	July	27,	1825
James Macaulay	Oct.	6,	1825
James Hunter	April	5,	1826
David J. Bowman	May	19,	1826
William Bruce	Nov.	19,	1826
James Fairfield	April	3,	1827

Samuel Nulson	May 14,	1827	Newton Carlisle	Sep. 30,	1831
Jacob B. Chamberlain	May 14,	1827	Luther Cross	Oct. 6,	1831
James Wilson	June 12,	1827	Alfred Digby	Oct. 24,	1831
William J. Scott	June 22,	1827	John Allen	Nov. 4,	1831
James O. Hare	June 22,	1827	Thomas Slade Robinson	Dec. 5,	1831
Thomas Moore	Jan. 3,	1827	James Stirling	Dec. 30,	1831
Andrew Vandycck	Jan. 3,	1827	William Wilson	Dec. 30,	1831
Lester Harvey Goward	July 24,	1827	James Grant	Dec. 30,	1831
Thomas Fraser McQueen	Oct. 10,	1827	James Eken Gilchrist	Jan. 3,	1832
Robert Ironsides	Oct. 10,	1827	Isaac Stephenson	Jan. 9,	1832
George N. Ridley	Oct. 30,	1827	Wm. R. Hamilton	Jan. 18,	1832
Asa Farrar Reid	Dec. 27,	1827	Joseph B. Elmore	Feb. 27,	1832
Alexander Wylie	Jan. 9,	1828	John Willison	March 22,	1832
David Duncomb	Jan. 9,	1828	Daniel M. Black	April 3,	1832
John E. Tims	Jan. 10,	1828	Hiram Uriah Gilbert	April 5,	1832
Basil R. Church	Jan. 9,	1828	Abraham Fleming	May 4,	1832
Stephen H. Vandycck	Jan. 9,	1828	Richard Noble Starr	May 18,	1832
John B. Crouse	Jan. 9,	1828	William Turner	May 30,	1832
Peter Diell	Oct. 14,	1828	James Muttlebury	June 11,	1832
Truman Raymond	Nov. 13,	1828	Thomas James Ryder	June 11,	1832
Francis Wm. Porter	Dec. 2,	1828	Alexander Chorley Robinson	June 21,	1832
John Thomson	Jan. 6,	1829	James Cathcart	June 25,	1832
George C. Rankin	Jan. 8,	1829	James Arnold Rolls	June 25,	1832
Benjamin P. Hall	Jan. 16,	1829	Thomas Gainfort	June 22,	1832
John Crumie	April 7,	1829	William Charles Gwynn	June 29,	1832
Wm. McMahon	July 7,	1829	James Cattermoll	July 1,	1832
Peter Schofield	July 7,	1829	John Mewburn	July 21,	1832
Marcus Whitman	July 10,	1829	George Moore	July 26,	1832
John Rolph	July 10,	1829	Robert Miller	Aug. 7,	1832
John Huchison	July 13,	1829	Newton Burnie	Aug. 14,	1832
J. E. Rankin	Aug. 4,	1829	John M'Spaden	Aug. 29,	1832
John Donner	Sep. 29,	1829	Lucius O'Brien	Aug. 30,	1832
Josiah C. Goodhue	Oct. 15,	1829	John Crawford	Sep. 8,	1832
William Case	Feb. 18,	1829	Robert Stewart	Oct. 5,	1832
John Spencer	Oct. 19,	1829	James Coleman	Oct. 9,	1832
Hamilton D. Jessup	Oct. 21,	1829	John Anderson	Oct. 16,	1832
David Wilcox	Oct. 27,	1829	John Keagh	Oct. 17,	1832
Robert Edmiston	Dec. 20,	1829	James Cobban	Oct. 29,	1832
Marcus Merrick	Jan. 5,	1830	Thomas Snow	Nov. 5,	1832
William Beamish, Jun.	Jan. 5,	1830	Andrew M'Kenzie	Nov. 7,	1832
Benjamin Walton	Jan. 6,	1830	Paul Darling	Jan. 14,	1833
John Warner Leonard	Jan. 6,	1830	James Smith Wallen	March 5,	1833
William Rees	Jan. 6,	1830	William Adamson	May 3,	1833
Truman Hicock	Jan. 21,	1830	John Flynn	May 18,	1833
William W. Howard	April 6,	1830	James Allen	May 23,	1833
Jira Skinner	April 6,	1830	Samuel M'Gee	June 21,	1833
Benjamin S. Corry	July 6,	1830	Robert Aberdeen	July 2,	1833
Peter Howard	July 12,	1830	Richard Murphy	July 3,	1833
Robert Gilmour	July 12,	1830	George Dunham	July 3,	1833
John King	July 22,	1830	William Cameron	July 4,	1833
Edward Lawson M'Donald	Aug. 18,	1830	David Corey	July 4,	1833
William Lang	Sep. 21,	1830	John Beatty	July 7,	1833
Jonathan Foot	Nov. 9,	1830	Thomas W. Robison	July 8,	1833
John Whitelaw	Dec. 11,	1830	George Low	July 9,	1833
Stewart Chisholm	Jan. 20,	1831	John Stratford	July 10,	1833
Samuel John Stratford	Feb. 22,	1831	Thomas Duggan	July 10,	1833
Isidore Berthelot	March 5,	1831	Walter Telfer	July 15,	1833
Elias Boulton Smith	April 5,	1831	Henry Clay	July 17,	1833
Elijah E. Duncombe	April 5,	1831	Anthony Marshall	July 17,	1833
Donald M'Gillis	April 5,	1831	Patrick M'Mullin	Aug. 16,	1833
Jabez Powers	April 7,	1831	John George Roberts	Aug. 16,	1833
Ephraim Cook	April 25,	1831	Henry Boyes	Sep. 4,	1833
Abraham V. V. Prunyn	May 20,	1831	Samuel Rastall	Sep. 17,	1833
Ziba M. Phillips	June 15,	1831	Hiram D. Lee	Oct. 14,	1833
James Gilpin	June 24,	1831	Robert Jones	Sep. 21,	1833
Henry Meade	July 6,	1831	Peter Marter	Nov. 5,	1833
Joseph Lister	July 7,	1831	Edward J. Butteel	Dec. 9,	1833
Thomas Bayly	July 11,	1831	Robert Hornby	Nov. 23,	1833
John Cairns	July 11,	1831	George Augustus Latham	Nov. 11,	1833
David Scanlan	July 6,	1831	James Miller	Jan. 8,	1834
John Grant	July 6,	1831	John Moore	Feb. 6,	1834

William Ross.....	Feb. 11,	1834	Joseph Clarke.....	Oct. 23,	1835
Lemuel Bartlet.....	Feb. 11,	1834	William Taylor.....	Oct. 23,	1835
David Lithgow.....	March 5,	1834	John K. Fairfield.....	Oct. 23,	1835
Donald M'Donald.....	March 8,	1834	George Southwick.....	Oct. 23,	1835
William Henry Parsley.....	March 10,	1834	Alexander Anderson.....	Nov. 19,	1835
George Hamilton Park.....	April 9,	1834	William Gordon Gunn.....	Nov. 25,	1835
Charles Rolls.....	April 10,	1834	Arthur Paterson.....	Jan. 6,	1836
John Harrison Blackwell.....	April 14,	1834	William P. Crewe.....	Feb. 25,	1836
Jonathan Wolverton.....	April 14,	1834	Henry Rolls.....	April 6,	1836
James Duncan Gillie.....	April 22,	1834	Cyrenius Hall.....	April 7,	1836
James Campbell.....	May 16,	1834	James Edward Burton.....	May 17,	1836
Samuel Norway.....	May 16,	1834	W. B. Nichol.....	April 12,	1836
Duncan Campbell.....	May 27,	1834	Robert Todd Reynolds.....	July 4,	1836
Thomas Steel.....	May 20,	1834	Charles M'Cosker.....	July 5,	1836
Unjacke Ronayne.....	June 4,	1834	William Tarrant.....	July 6,	1836
George Colls.....	June 4,	1834	Daniel M'Intyre.....	July 6,	1836
Charles Elliott Hanson.....	June 6,	1834	Edward Morton.....	July 7,	1836
John Dowding.....	June 9,	1834	James Meagher.....	July 8,	1836
James Tolkien.....	June 13,	1834	Francis Benedict.....	July 14,	1836
John Percy Moore.....	June 16,	1834	Rowley Pegley.....	July 18,	1836
Patrick S. Wharrie.....	June 20,	1834	Colin A. Anderson.....	Aug. 9,	1836
William Gerald Dickenson.....	June 26,	1834	William Sutherland.....	Sep. 9,	1836
Francis Cameron.....	July 7,	1834	Charles Wm. Covernton.....	Sep. 28,	1836
John Barnhart.....	July 8,	1834	James Mitchell.....	Oct. 4,	1836
John Ferguson.....	July 8,	1834	Mathew Campbell.....	Oct. 5,	1836
William L. Badger.....	July 10,	1834	Henry Osborne.....	Oct. 5,	1836
James William Powell.....	July 10,	1834	Thomas Homan Mulock.....	Nov. 18,	1836
Hardinge Gifford King.....	July 10,	1834	James T. Thorburn.....	Dec. 20,	1836
Daniel Coate.....	July 11,	1834	William Allison.....	Dec. 28,	1836
John Scott.....	July 12,	1834	James Campbell.....	Jan. 7,	1837
John B. Walsh.....	July 12,	1834	Henry Orton.....	Feb. 22,	1837
James M'Ilmurray.....	July 12,	1834	Thomas Chamberlain.....	April 4,	1837
Patrick M'Garry.....	July 12,	1834	Joseph Workman.....	May 30,	1837
John M'Kelcan.....	July 12,	1834	Thomas Butler.....	June 15,	1837
Edmund Mills.....	July 22,	1834	Robert M'Lean.....	July 5,	1837
Alexander Kenneth M'Kenzie.....	July 23,	1834	John Turgand.....	July 7,	1837
Edward C. Thomas.....	Aug. 1,	1834	Thomas Seagrind.....	Aug. 10,	1837
Charles Edward Sheward.....	Aug. 9,	1834	Matthew M. Corry.....	Aug. 14,	1837
James Haskins.....	Aug. 25,	1834	Hervey Ross.....	April 3,	1838
Adolphus Williams.....	Aug. 30,	1834	George Burnham.....	April 5,	1838
Henry Whicker.....	Sep. 2,	1834	Wm. Hope.....	April 6,	1838
Joseph Kerr.....	Oct. 8,	1834	George Gwynne Bird.....	April 6,	1838
Samuel S. Knight.....	Oct. 13,	1834	Wm. M. Smith.....	July 3,	1838
Francis Stewart Primrose.....	Oct. 10,	1834	Frederick Morson.....	Aug. 2,	1838
William Ferris.....	Oct. 10,	1834	Alfred Morson.....	Oct. 1,	1838
Edward Mulberry Hodder.....	Oct. 29,	1834	Francis Clarke Mewburn.....	Oct. 20,	1838
George Goldstone.....	Oct. 31,	1834	Abraham Francis.....	Oct. 24,	1838
Edward Klinckhardt.....	Jan. 6,	1835	Wm. Woodcock.....	Nov. 10,	1838
Gerald O'Rielly.....	Jan. 6,	1835	Wm. Tullidge.....	Nov. 15,	1838
Robert M'Cosh.....	Jan. 9,	1835	Edward Morton.....	Jan. 15,	1839
Edward Van Cortland.....	Jan. 14,	1835	George Robert Grasett.....	March 6,	1839
John Jarron.....	Jan. 7,	1835	George Parsons.....	April 6,	1839
John Hyde.....	April 1,	1835	John W. Hunter.....	April 3,	1839
William Craigie.....	April 7,	1835	James Lister.....	June 17,	1841
David Galbraith.....	April 8,	1835	Edward Quincy Sewell.....	June 19,	1841
Samuel Richardson.....	April 9,	1835	Terence Sparham.....	June 23,	1841
Thomas Aldred Williams.....	April 27,	1835	Edward Dancey.....	July 7,	1841
John Berggreen Matthews.....	May 29,	1835	James Stewart.....	July 7,	1841
William H. Macartney.....	June 15,	1835	Joseph Orlando Orr.....	July 10,	1841
Woolmer Richard Cubitt.....	June 24,	1835	John Reid.....	July 14,	1841
Walter H. Burritt.....	July 8,	1835	George E. Givens.....	July 16,	1841
John Finlayson.....	July 8,	1835	Allen N. Woolyerton.....	July 19,	1841
Isaac Brock Aylsworth.....	July 9,	1835	Robert McCulloch.....	July 20,	1841
Flint L. Keys.....	July 15,	1835	James Powers.....	Aug. 3,	1841
James Sinclair Egan.....	July 16,	1835	Robert J. Paget.....	Aug. 7,	1841
Henry Sullivan.....	July 20,	1835	Philander Grant Fitch.....	Aug. 27,	1841
Alfred K. Dewson.....	July 20,	1835	Myles Burk.....	Oct. 13,	1841
Rogers Cotter.....	July 31,	1835	Robert Moore.....	Dec. 8,	1841
William S. Myers.....	Aug. 13,	1835	James Allen.....	Jan. 26,	1842
William Winder.....	Sep. 29,	1835	John Scott.....	Feb. 1,	1842
Roderick M'Donald.....	Oct. 5,	1835	William Ford.....	April 7,	1842

Morgan Hamilton.....	April	7,	1842	Michael George Long.....	June	6,	1846
John R. Dickson.....	April	14,	1842	Gavin Russel.....	July	6,	1846
Nathaniel E. Manwaring.....	April	14,	1842	John Nichol.....	July	18,	1846
Henry R. Goodman.....	April	22,	1842	John Reid.....	July	25,	1846
Charles Rattray.....	April	22,	1842	Benjamin Dickey.....	Sep.	12,	1846
William Reynolds.....	May	27,	1842	Oriando Salathiel Winstanley.....	Sep.	12,	1846
Thomas Reynolds.....	June	16,	1842	James Denton.....	Sep.	26,	1846
Adam M. McKay.....	June	25,	1842	Joseph M. O. Cromwell.....	Oct.	10,	1846
Severs Dorion.....	June	2,	1842	Frederick Fortescue Passmore.....	Oct.	10,	1846
Horatio Yates.....	July	22,	1842	Robert Hutchison Gairdner.....	Jan.	2,	1847
Frederick W. Keast.....	Sep.	3,	1842	James Salmon.....	April	17,	1847
Edward Hickman.....	Sep.	3,	1842	John Mahaffy.....	May	8,	1847
William Carrol.....	Sept.	10,	1842	John A. Harvey.....	May	8,	1847
Patrick Trenor.....	Oct.	8,	1842	Henry Lord.....	May	29,	1847
George Smith*.....	Oct.	15,	1842	Henry Reid Melville.....	June	12,	1847
Thomas Cross.....	Oct.	22,	1842	Alexander McDougall.....	July	10,	1847
Alexander Robertson.....	Oct.	22,	1842	Thomas Mair Derry.....	Aug.	14,	1847
Henry Long Jacobs.....	Oct.	29,	1842	Charles Seager.....	Aug.	17,	1847
John Hyde.....	Nov.	5,	1842	John Duncomb.....	Oct.	30,	1847
Henry Howard.....	Nov.	12,	1842	Francis Armstrong.....	Oct.	30,	1847
William R. Beaumont.....	Nov.	12,	1842	Charles Andrew Caddy.....	Oct.	30,	1847
James John Hayes.....	Dec.	3,	1842	James A. Whiting.....	Oct.	30,	1847
John Tuckey Travers, M. R. C. S. L.....	Dec.	31,	1842	John Roy Philip.....	Nov.	6,	1847
William Lockton Billings.....	Jan.	21,	1843	William George Wonham.....	Nov.	27,	1847
Robert Spear.....	March	24,	1843				
B. W. B. Dixie.....	March	24,	1843				
Theophilus Mack.....	April	13,	1843				
John Anderson Jamieson.....	June	10,	1843				
Wm. McCargow.....	July	14,	1843				
Edward John Ferguson.....	Aug.	5,	1843				
Thomas Hay.....	Aug.	19,	1843				
Edward Barry.....	Sep.	9,	1843				
John Ardagh.....	Sep.	9,	1843				
Milton C. Schofield.....	Oct.	7,	1843				
Silas Wright Cook.....	Oct.	13,	1843				
David Layton.....	Oct.	13,	1843				
John Frazer.....	Oct.	13,	1843				
James Hunter.....	Nov.	25,	1843				
John Kirk.....	Jan.	13,	1844				
Robert Grant Jameson.....	Jan.	13,	1844				
William Hayward.....	Jan.	20,	1844				
George Farrah.....	March	2,	1844				
William Tempest.....	April	13,	1844				
Jonathan Barber.....	April	20,	1844				
John Currie.....	June	1,	1844				
John Hope Wraith.....	June	8,	1844				
Rufus Holden, M.D.....	June	8,	1844				
William Henry Wagner.....	July	13,	1844				
Joseph A. Vervais.....	July	13,	1844				
Thomas Moore.....	July	13,	1844				
Henry White.....	Sep.	7,	1844				
Thomas Holywell.....	Oct.	19,	1844				
Frederick Pugh.....	Nov.	9,	1844				
James Atchison.....	Nov.	30,	1844				
Francis Vize Carey.....	Dec.	21,	1844				
William Mutch.....	Jan.	4,	1845				
Richard Walsh Travers.....	Jan.	18,	1845				
Edwin Hinwood.....	Feb.	8,	1845				
John Ardagh.....	April	5,	1845				
Charles Jones.....	April	19,	1845				
John Alfred Moffett.....	April	19,	1845				
George L. Beard.....	July	19,	1845				
William James Best.....	July	26,	1845				
Edward Clarke.....	March	14,	1846				
Thomas C. Macklem.....	April	4,	1846				
Robert John Gunn.....	April	25,	1846				
Reginald Henwood.....	April	25,	1846				
Henry Hanson.....	April	25,	1846				

*Our American Exchanges.*—We beg to notify our several contemporaries whose esteemed favours we have had such repeated occasions to acknowledge, that with the exception of the New York Annualist, and the Medical Examiner, not one has reached our hands since the 1st December. In consequence of the cessation being so general, we are led to believe that the cause will be found in some alteration of postal arrangements. Whatever the cause be, we request our contemporaries' attention to the subject.

*Jury of Matrons.*—Our November number contained a notice of the case of Mary Ann Hunt, who was pronounced, by a jury of matrons, "not quick with child," and upon whom the extreme sentence of the law had been passed, in consequence, by Mr. Baron Platt. She has been since examined by competent medical men, who have certified to her pregnancy. The result is the suspension of the sentence, with probable ultimate commutation of it—a second convincing proof of the extreme absurdity of the *mode* of fulfilling the *legal* requirements in such cases, and which we hope will be attended with an alteration of the statute, more consonant with the present state of science.

#### OBITUARY NOTICE.

At Quebec, on the 10th inst., aged 67, Thomas Fargues, Esq., M.D., for many years an eminent Physician in that city.

#### BOOKS, &c., RECEIVED.

Letter to the Right Hon. Earl Grey, embracing a statement of facts in relation to Emigration to Canada during the summer of 1847, by the Hon. ADAM FERIE, Member of the Legislative Council, Chairman of the Executive Lay Commission for Emigration, &c. Montreal 1847.

\*George Smith, by a subsequent official announcement, dated October 22, is licensed only to practice midwifery.

**BILL OF MORTALITY for the CITY of MONTREAL, for the month ending NOVEMBER 30, 1847.**

DISEASES	Male.	Female.	Total.	Age													
				Under 1.	1 & under 3	3 — 5	5 — 10	10 — 15	15 — 25	25 — 35	35 — 45	45 — 55	55 — 75	75 upwards			
EPIDEMIC OR INFECTIOUS.....	Small Pox,.....	2	2	4	1	2	..	..	..	..	..	..	..	..	..	..	..
	Scarlatina,.....	3	4	7	..	2	2	..	..	..	..	..	..	..	..	..	..
	Fever,.....	18	19	37	3	5	4	1	..	..	7	9	4	6	..	..	..
	Dysentery,.....	5	4	9	3	2	..	..	..	..	1	5	1	..	..	..	..
DISEASES OF BRAIN AND NERVOUS SYSTEM.....	Convulsions,.....	1	2	3	2	1	..	..	..	..	..	..	..	..	..	..	..
	Dentition,.....	10	11	21	9	12	..	..	..	..	..	..	..	..	..	..	..
	Apoplexy,.....	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hydrocephalus,.....	2	1	3	..	2	1	..	..	..	..	..	..	..	1	..	..
DISEASES OF THORACIC VISCERA,.....	Paralysis,.....	1	1	2	..	..	..	..	..	..	..	..	..	..	1	..	1
	Consumption,.....	18	20	38	4	10	2	..	1	5	4	9	3	..	..	..	..
	Croup,.....	3	..	3	..	2	1	..	..	..	..	..	..	..	..	..	..
	Hooping Cough,.....	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
DISEASES OF ABDOMINAL VISCERA,.....	Pneumonia,.....	2	1	3	..	..	..	..	..	2	..	1	..	..	..	..	..
	Diarrhœa,.....	12	10	22	10	2	1	..	..	6	3	..	..	..	..	..	..
	Dropsy,.....	1	1	2	..	..	..	..	..	..	1	..	1	..	..	..	..
	Disease of Liver,.....	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
OTHER CAUSES AND DISEASES, AND DISEASES NOT SPECIALLY DESIGNATED.....	Cholera,.....	2	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..
	Debility,.....	5	2	7	..	..	..	..	..	..	..	..	..	..	..	2	5
	Still-born,.....	7	2	9	9	..	..	..	..	..	..	..	..	..	..	..	..
	Unknown,.....	10	4	14	3	2	..	..	5	2	1	1	..	..	..	..	..
Other Causes,.....	7	9	16	5	3	..	1	2	1	3	1	..	..	..	..	..	
Total,.....	112	93	205	47	47	12	3	10	23	27	16	12	2	6	..	..	

**MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR NOVEMBER, 1847.**

DATE.	THERMOMETER.				BAROMETER.				WINDS.			WEATHER.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	10 P.M.
1,	+45	+51	+50	+48.	29.87	29.82	29.84	29.84				Cloudy	Rain	Fair
2,	"48	"61	"55	"54.5	29.83	29.70	29.63	29.72				Fair	Fair	Cloudy
3,	"57	"59	"48	"58.	29.61	29.49	29.47	29.52				Cloudy.	Rain	* th rn
4,	"46	"54	"44	"50.	29.55	29.57	29.59	29.57				Fair	Fair	Fair
5,	"40	"41	"38	"40.5	29.57	29.57	29.59	29.58				Foggy	Rain	Cloudy
6,	"38	"43	"34	"40.5	29.70	29.87	29.99	29.85				Rain	Fair	Fair
7,	"31	"40	"35	"35.5	30.07	30.01	29.99	30.02				Fair	Fair	Cloudy
8,	"37	"44	"38	"40.5	29.86	29.74	29.73	29.78				Fair	Rain	Cloudy
9,	"44	"47	"47	"45.5	29.60	29.45	29.54	29.53				Rain	Rain	Fair
10,	"40	"42	"37	"41.	29.65	29.73	29.80	29.73				Fair.	Hl.Shr	Cloudy
11,	"35	"38	"34	"36.5	29.86	29.85	29.87	29.86				Fair	Cloudy	Fair
12,	"35	"38	"37	"36.5	29.90	29.81	29.81	29.84				Fair	Cloudy	Fair
13,	"28	"29	"27	"28.5	29.91	30.01	29.94	29.96				Snow	Fair	Fair
14,	"33	"37	"33	"35.	29.56	29.32	29.35	29.41				Snow	Rain	Cloudy
15,	"32	"35	"34	"33.5	29.49	29.45	29.67	29.54				Fair	Fair	Fair
16,	"28	"33	"30	"30.5	29.93	29.91	29.71	29.85				Fair	Fair	o'erc'st
17,	"34	"49	"41	"41.5	29.70	29.70	29.80	29.73				Fair	Fair	Fair
18,	"33	"31	"30	"32.	29.83	29.71	29.50	29.68				Fair	Rain	Rain
19,	"27	"25	"22	"26.	29.62	29.79	30.03	29.81				o'erc'st	Sa.Shr.	Fair
20,	"12	"19	"18	"15.5	30.24	30.26	30.23	30.24				Fair	Fair	Fair
21,	"23	"32	"29	"27.5	30.12	30.03	30.06	30.07				Cloudy	Cloudy	Fair
22,	"30	"34	"32	"32.	30.10	30.14	30.15	30.13				o'erc'st	Cloudy	Foggy
23,	"29	"40	"46	"34.5	30.13	29.87	29.74	29.91				Fair	Rain	Rain
24,	"53	"54	"50	"53.5	29.65	29.51	29.34	29.50				Rain	Rain	Rain
25,	"50	"49	"42	"49.5	29.39	29.37	29.36	29.37				Fair	Cloudy	Fair
26,	"34	"31	"27	"32.5	29.47	29.69	29.81	29.67				Snow	Snow	Fair
27,	"23	"29	"26	"26.	29.80	29.76	29.71	29.76				Fair	Fair	o'erc'st
28,	"21	"16	"16	"23.5	29.63	29.71	29.90	29.75				Snow	Snow	Fair
29,	"2	"23	"5	"7.5	30.25	30.34	30.42	30.34				Fair	Fair	Fair
30,	"6	"18	"8	"12.	30.55	30.50	30.4	30.49				Fair	Fair	Fair

THERM. { Max. Temp., +61° on the 2d  
 { Min. " +2° " 29th  
 Mean of the Month, +35°6. [ \*Thunder & rain with lightning. ]  
 BAROMETER, { Maximum, 30.55 Inches on the 30th.  
 { Minimum, 29.32 " " 14th.  
 Mean of Month, 29.80 Inches.

Main data table with columns: Day, Barometer at Temp. of 32°, Temperature of the Air (7 A.M., 3 P.M., 10 P.M., Mean), Tension of Vapour (7 A.M., 3 P.M., 10 P.M., Mean), Humidity of the Air (7 A.M., 3 P.M., 10 P.M., Mean), Wind (7 A.M., 3 P.M., 10 P.M.), Rain on surf., and WEATHER.

Summary statistics table with columns: Highest Barometer, Lowest Temperature, Mean Daily Range, etc., and a section for Proportion of Wind from each Quarter (N.W., S.W., E., S.E., N.E.).

Under the head of 'Transition of Vapour'... The observations entered at 7 a.m., on 24 days, are actually taken at 9 a.m. The two observations taken on Sundays are not included in any of the means.