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ART. XXXVIII.—ON TYPHUS OR SHIP FEVER, AS WITNESSED AT GROSSE ISLE.

By GEO. M. DOUGLAS, M.D., Medical Superintendent, Quarantine Establishment, Grosse Isle.

Typhus and Typhoid Fever, popularly known at different periods, from its prevalence in particular localities, as *Jail, Camp, Hospital, Ship, Road, or Irish Fever*, is unquestionably one of the oldest diseases of which mention is made by historians. From the earliest ages, it has been remarked, that the accumulation of ill-fed people, in situations where ventilation and cleanliness are neglected, generates fever of a malignant type, which propagates itself in a manner more certain than any other disease. Thucydides ascribes the first great plague of Athens to the introduction by Pericles of multitudes of rustics into the city, and who were crowded together in huts within the walls; and Livy imputed the first great plague of Rome to the number of inhabitants pent up within its narrow limits. Medical writers are agreed in attributing to these causes the great plagues that devastated the city of London at different periods. Defoe, in his *History of the Plague*, very wisely counsels the authorities, "that they would consider of separating the people into smaller bodies, and removing them in time farther from one another, and not let such a contagion as this (plague), which is indeed chiefly dangerous to collected bodies of people, find a million of people in a body together again." The great fire of London did this for them the following year. The progress of civilization, the improvement in the moral and physical condition of the masses, and the great and increasing attention paid to cleanliness, ventilation, and drainage, together with a more regular and certain supply of food, have tended to remove many of the causes of fever in Europe. In Ireland we still find it indigenous; and though I am not prepared to go the length of Dr. Lombard, who asserts, that the freize coat of the Irish labourer is its depository and vehicle, yet we have in this country abundant proofs that Typhus Fever is every year imported by the Irish emigrants, and by no other. Mr. Farr, the Registrar-General, has also shown, that in the three great "avenues by which the Irish labourer enters England, viz., Bristol, Liverpool, and Glasgow, their crowding to excess in lodging-houses.

their loathsome diet and filth, are productive of fever in these cities." And he remarks, at the same time, "that in thus directing attention to a weighty sanatory fact, it is far from our intention to convey any reflection upon the Irish people, as it can be shown that a few years back the English were as bad."—(*MacCulloch's Statistics.*)

A reference to the Tables annexed to this, will exhibit a yearly importation of fever into Canada by emigrants. The greater or less prevalence of the disease in Ireland, has been observed to depend upon the crop of the common food of the people, the potato. The almost total failure of this esculent for the last two years, has produced a scarcity amounting to famine in some parts, and has thus augmented, to a degree hitherto unknown, the usual concomitant of famine, *fever*. Hence we witnessed last year the melancholy sight of every passenger vessel, with Irish emigrants, arriving freighted with this disease. The same was seen at all the ports of this continent where emigrants landed. The greater mortality in vessels coming to the British Provinces, may be attributed principally to three causes: 1st, the greater length of the voyage; 2d, the character of the passengers; and 3d, to being more crowded.

1st, The average length of a passage to Quebec may be estimated at one-third more than to New York, in consequence of the tediousness of the Gulf and River navigation, and the inferior class of vessels employed in the timber trade.

2d, The higher rate of passage, and the restriction imposed by the system of bonding in New York, have the effect of driving all the aged, sickly, poor, and destitute, to seek the route of the British Provinces. And

3d, The law limits, in the United States, the number to one adult to every fourteen superficial feet, and counts all souls on board. The English Passenger Act limits the number to one adult to every ten feet, and permits infants under twelve months to pass free. These causes will explain the greater mortality and *morbidity* of passengers arriving in the British Provinces.

The chief circumstances which tend to render fevers communicable from one person to another are found to be,

1st, Humidity of the atmosphere,

2d, Deficient supply of food.

3d, Filth and imperfect ventilation.

It would be difficult to find any place where these three circumstances are combined in such a degree as in the hold of an Irish passenger vessel. Firstly, in addition to the usual dampness of a ship, you have in an emigrant vessel the humidity caused by the daily distribution of fresh water in small quantities to each individual passenger, and which, being kept by them in tins and pots in and under their sleeping berths, gets capsized very often by the rolling of the ship, and thus adds to the general dampness; and, in ill-regulated vessels, the passengers are permitted to wash their clothes in the 'tween decks. The air of the hold is thus always surcharged with moisture, while its temperature is kept up by the heat given off by an accumulation of living bodies.

2dly, The supply of food is in many cases limited to a pound of bread-stuff, or oatmeal, to each adult per diem, and this often in a mouldy and damaged state. Thousands of the emigrants who arrived in Canada last season had no other sustenance on the voyage.

3dly, The peculiar nature of a ship's hold is such, that ventilation, while the ship is under weigh, is all but impossible, in the only way in which perfect ventilation is obtained, viz., by passing a current of pure air *through* the hold. Wind-sails effect this in a very insufficient manner; and when, in rough weather, it becomes necessary to fasten down the hatches, the little supply of air which enters by them is shut out. Of the passengers a great proportion are women and children, who are unable, in many instances when the weather is stormy, to avail themselves of the miserable "*cabinets d'aisances*," (as when these do exist they are generally placed in the bows of the ship,) and are consequently obliged to pass their evacuations in the hold. You have here combined all that could by any possibility generate a foul atmosphere; and when to this you have febrile miasma, the only wonder is that any escape the disease, as there is no running away from it. On visiting a passenger vessel, such as thus described, in a morning before the emigrants have come on deck, I have seen a stream of foul air issuing from the hatches as dense and palpable as seen on a foggy day from a dung heap or range of hot-beds; and rarely did I find it necessary to inquire if fever prevailed on board; that peculiar and characteristic odour which belongs to Typhus Fever patients was perceptible to the senses on stepping on the deck. To the foregoing causes ought to be added, the moral and depressing influence of fear of shipwreck, and grief at leaving their native land—both powerfully predisposing causes of fever.

The character of the disease, as witnessed at the Quarantine Hospitals, did not differ essentially from that so often and so well described in this country, as well as in Europe. The three great systems were found affected more or less in all cases. In some instances, the organs constituting the nervous system were more prominently affected; such cases were more frequently seen in the better fed seaman, or English emigrant, who were occasionally found mixed up, in Liverpool vessels, with the Irish. In these cases the disease was ushered in with intense headach, great pain in the back and limbs, blood-shot eye, and early furious delirium. In some rare instances the sensorial faculties were overwhelmed at once as completely as in apoplexy. A stout healthy young man of 18, was struck down with such an attack on board the barque "*Gilmour*," in which vessel he was an apprentice: he expired in twelve hours. A similar case was witnessed in the ship "*Mail*," from Liverpool; a stout seaman was attacked, and death supervened with equal rapidity. Both these vessels were unusually sickly. These cases are cited to prove the power of concentrated miasm acting on the nervous system.

The organs of secretion and excretion were more frequently affected than any other; such cases were invariably found most troublesome to treat, and more frequently had a fatal termination. Frequent observation convinced us of the correctness of Dr. Cheyne's remark, that dysentery was sometimes converted into fever, while, *vice versa*, fever was converted into dysentery. When the symptoms of fever were exchanged for those of dysentery, it was probably by the irritation of the mucous coat of the small intestines and stomach extending to the large. Sydenham expressed the opinion, that dysentery is a *febris introversa*, or turned in upon the intestines.

Cases in which derangement of the circulating system predominated, were not of such frequent occurrence as compared with others.

Petechiæ and maculæ were found in many cases, but were not so constant and universal as to justify our classing Typhus in the list of exanthems. Epistaxis was a troublesome accompaniment, and such cases where they did not terminate fatally, had a long and tedious convalescence. Dr. Benson, one of the medical attendants at the Quarantine Hospitals last season, a gentleman advanced in years, and for a long period connected with a large fever hospital in Ireland, fell a victim to an attack in which great hæmorrhage from the nose and fauces was a prominent symptom. On its advent he resigned himself to death, saying he had

never seen such cases do well in elderly people. He died on the fourteenth day.

Meteorism, or tympanitic swelling of the belly, was another unfavourable symptom, occasionally met with towards the close of fever. A medical assistant in the Hospitals in 1836, who died from Typhus, had this distressing affection supervene on the seventeenth day. In his case it was ascertained, by a subsequent post-mortem examination, to have been caused by ulceration of the ileo-cæcal valve. Forty-eight hours previous to his dissolution, there was as complete a reversion of the peristaltic motion, as in the most perfect case of strangulated hernia, as evinced by constant vomiting of fecal matter. Severe and protracted cases, especially those which ran into dysentery, were often complicated with excoriation and sloughing sores of the back, sacrum, and hips; the irritation and exhaustion produced by these frequently turned the scale against the unhappy sufferer. Various topical applications were made to these sores, and means adopted to take off pressure. Among the former of these was a weak solution of Mr. Ledoyen's disinfecting fluid (solution of nitrate of lead). Marked benefit was obtained by its use in many cases, and in all it corrected the effluvia which so constantly attends large sloughs. In two of the cases where it was so used, it brought on lead colic.

Inflammation and swelling of the parotid gland was an occasional event after the fifteenth day; it was always looked upon as an unfavourable symptom, terminating often in gangrene and death with us.

Among the irregular and anomalous cases which occurred, were two or three, in which there existed an enormous craving for food, chiefly for meat, and any kind would be swallowed with avidity. This took place in each instance during the height of the fever, and at a time when the tongue was dry, cracked and glazed, the face flushed, and the pulse over 100. A similar phenomenon was observed during the progress of the fever with which Dr. Painchaud, the Senior Physician of the Marine and Emigrant Hospital of this city was attacked. In his case, during the ingravescence of the disease, and at various periods afterwards, he was seized with an inordinate desire for food, which he eat with avidity, swallowing large pieces of beef steak imperfectly masticated. His convalescence was tedious, and accompanied by diarrhœa. I find that Dr. Satterley relates an analogous case, in the Medical Transactions, vol. v. Art. xxii., where the desire for food re-appeared on the fifth day, with a craving which it was impossible to satisfy. When food was not allowed, various indigestible substances were devoured in its stead. In this

case the disease extended, with numerous variations, to upwards of thirty days, when the fever unequivocally subsided, and the patient gradually recovered. A greater number of deaths took place from relapse after fever and from dysentery, than from fever itself; in both instances induced by errors of diet, which the greatest watchfulness could not prevent; or from sudden atmospheric changes, to which the convalescents were exposed in hospitals built of boards, and constructed with a view to free ventilation. The treatment was necessarily modified in different cases, according to the predominance of diseased action in the different organs, whether in the *brain, chest, or abdomen*.

General bleeding was rarely employed, as few cases were seen in the very outset, when this remedy, if used at all, is alone justifiable. I fully concur with Dr. S. Smith in the opinion, that "it is in vain to hope to terminate fever by a stroke of art; that when once the disease is set up, it advances with a step as steady as time, and, like time, it never retraces a step." Many of the medical gentlemen in charge of the Hospitals at Grosse Isle last season, had great faith in emetics in arresting the disease, but all sooner or later gave up their use, from a conviction of their utter inefficacy. Cleanliness, quietness, cool drinks, gentle aperients of calomel and rhubarb, or senna and salts, so as to produce two or three stools in the twenty-four hours, with three half pints of gruel or arrowroot per diem for diet, were the chief means resorted to during the progress of the fever. If head symptoms showed themselves, the *douche* was used, and a single fold of linen cloth wet with cold water was kept applied to the shaved scalp. If there still existed great restlessness and insomnia notwithstanding these applications, recourse was had to hyoscinus, as long experience has taught me, that delirium, coma, and death, often ensue, where attention to the important point of obtaining sleep is neglected. Stimulants were rarely employed in the early stage of the disease; towards the close, and when the struggle came, brandy and wine were freely used, and when these failed to rouse the sinking powers, great benefit was often derived from the administration of large doses of gum-camphor; doses of 20 to 30 grains three times in the twenty-four hours were given, in substance reduced to a powder by means of a drop or two of spirit of wine. I have witnessed the most astonishing effects from the use of this drug, in cases where there was almost total insensibility, a thread-like pulse, and complete loss of muscular power, as evinced by the sliding down in the bed. In such cases re-action has been brought on, and the flagging powers recalled by it, even when wine and brandy by the half pint had failed to

stimulate. Tartar emetic was used with benefit where the disease showed itself in the chest.

In the abdominal affection, where there was much purging, starch enemata with laudanum were administered, and a rag wet with turpentine was applied externally. This form of the disease was always the most troublesome and unmanageable, frequently baffling all the curative means employed. *Alum*, the *mineral acids* combined with opium, chalk with and without opium, and the whole catalogue of astringents, were tried by the young medical men, fresh from the schools, and having great faith in drugs. I did not find one who was not disgusted sooner or later with his pet remedy.

The disease is both contagious and infectious. In proof of which I need only refer to the Table (2) appended to this, to show how unerringly it was contracted by those whose duties brought them in contact with the sick in hospitals or ships. On the other hand, solitary cases placed by themselves, where strict attention was paid to cleanliness and ventilation, frequent change of the clothes of the person and bed, and the immediate removal of all *ejecta*, appeared to be incapable of generating febrile miasm in sufficient quantity to communicate the disease. I only knew of one person so contracting fever last year in this city among people in easy circumstances. Those who have once had an attack (with a few exceptions) appear to possess a certain immunity for years after. I suffered in my own person from a severe attack, with petechial eruption, delirium, and other bad symptoms, in 1836, and, though exposed every season since, have hitherto escaped a second attack. When exposed to concentrated miasm in the holds of sickly ships, or when the hospitals are much crowded, and the weather calm and sultry, I suffer from derangement of the bowels, lassitude, and nausea.

With respect to the morbid appearances after death, I regret that the want of room, time, and other difficulties, prevented advantage being taken of the extensive field of observation presented last year at the Quarantine Hospitals. Previous to last season I made a point

of examining all bodies; on reference to notes then taken I find the following morbid appearances more frequently met with. In the head, the dura mater was rarely found diseased, though frequently adherent to the calvarium; the arachnoid and pia mater were often found more vascular than in a normal state; the substance of the brain itself, on being sliced with a scalpel, presented more bloody spots than usual; and there was in all cases effusion more or less into the ventricles, in some instances to the extent of two or three ounces. In the chest, the lining membrane of the bronchi was invariably found highly vascular and thickened; and frothy mucus mixed with pus was found in the smaller tubes. The pleuræ were often found inflamed, and adherent in all cases at one or more points. The lungs were rarely found in a normal state, being either engorged with blood or serum, or presenting indications of inflammation, such as hepatization, &c. The heart and pericardium were seldom found to offer any morbid appearance. In the abdomen, most of the organs, except the liver, were generally found deviating from a healthy condition.

The lining membrane of the intestines was found in various states of disease, from simple increased vascularity to positive ulceration. This latter morbid appearance was more often found in the large intestines, about the ileo-cæcal valve; increased vascularity and inflammation were rarely met with in the membrane of the stomach.

Where the large intestines were found in an ulcerated state, an enlargement and induration of the mesenteric glands were remarked, especially in those attached to the diseased intestine.

In the Table of admissions, discharges, and deaths, herewith annexed, no distinction has been made between Typhus, Typhoid or Dysentery, all being indiscriminately classed under the head *Fever*. This arose in part from the quarantine law, which limits the admission to the Hospitals to cases of Cholera, Fever, Small-pox, and Scarlatina.

TABLE I.

Shewing the number and per centage of Disease and of Deaths of Emigrants at the Quarantine Hospital, Grosse Isle, from 1833 to 1847, both years inclusive.

YEAR.	Number of Emigrants arrived.	Number admitted to Hospital.	Per centage of Admission.	Number of Deaths.	Per centage of Deaths.	DISEASES.								Total.
						Cholera.	Per cent. age of Children	Fever & Dysentery.	Per cent. of Fever and Dysentery.	Small Pox.	Per cent. of Small Pox.	Other Diseases	Per cent. for other Diseases	
1833	22,062	239	1.08	27	11.30	..	..	159	0.72	34	0.15	46	0.21	239
1834	30,982	844	2.72	264	31.16	290	0.95	404	1.30	12	0.07	138	0.45	844
1835	11,580	126	1.08	10	7.93	..	..	21	0.21	48	0.41	54	0.46	126
1836	27,980	454	1.62	58	12.78	..	..	338	1.21	50	0.18	66	0.24	454
1837	31,894	598	1.87	57	9.53	..	..	481	1.51	104	0.33	13	0.04	598
1838	2,918	65	2.23	6	9.31	..	..	42	1.44	17	0.51	6	0.21	65
1839	7,214	189	2.62	9	4.76	..	..	147	2.04	1	0.01	41	0.57	189
1840	22,065	561	1.54	41	7.31	..	..	485	2.15	60	0.17	16	0.07	561
1841	28,060	290	1.03	38	13.41	..	..	184	0.65	32	0.11	9	0.08	290
1842	44,374	488	1.09	54	11.07	..	..	340	0.76	56	0.12	74	0.16	488
1843	20,714	245	1.18	19	7.75	..	..	173	0.83	26	0.12	46	0.22	245
1844	20,142	388	1.92	17	4.88	..	..	322	1.59	11	0.05	55	0.25	388
1845	24,640	455	1.88	30	6.45	..	..	362	1.47	73	0.29	30	0.12	465
1846	32,753	892	2.72	66	7.40	..	..	613	1.87	106	0.32	107	0.33	892
1847	98,106	8691	8.86	8238	37.26	..	..	8574	8.74	92	0.09	25	0.33	8691

TABLE 2.

Shewing the number of Clergy, Medical Men, Hospital Attendants, and others, who contracted Fever and died during last season in attendance upon Sick Emigrants at Grosse Isle.

	Number who attended Hospital	Number who contracted Fever.	Number who died.
Roman Catholic Priests	42	19	4
Clergymen of the Church of England	17	7	2
Medical Men	26	22	4
Hospital Stewards	29	21	3
Nurses, Orderlies, and Cooks	186	76	22
Policemen	10	8	3
Carters employed to remove the sick, dying, and dead, Clerks, Bakers, and Servants of Mr. Ray, suttler, Do. of Mr. Bradford	6	5	2
Deputy Emigrant Agent	1	15	3
Clerk to ditto	1	4	1
Custom House Officers employed to examine baggage	2	1	1
Servants of Roman Catholic Clergymen	8	4	1

* Many of the Hospital Orderlies, Nurses, and Cooks were Emigrants, who were employed after their convalescence from fever, otherwise the proportion of sick would have been greater; as nearly all those who came down from Montreal and Quebec to be engaged, contracted fever, either at Grosse Isle, or soon after leaving it.

TABLE 3.

Return of Emigrants Admitted, Discharged, and Died at the Quarantine Hospital at Grosse Isle, during the season ending 3d November, 1847.

Description.	Admitted.	Discharged.	Died.	Total.	DISEASES.			
					Fever and Dysentery.	Small Pox.	Other Diseases.	Total.
Men	3534	2173	1361	3534	3515	15	4	3534
Women	2763	1791	969	2763	2730	20	13	2763
Children	2394	1486	908	2394	2329	57	8	2394
Total	8691	5453	3238	8691	8574	92	25	8691

* In consequence of the great prevalence of fever and dysentery, it was found necessary to restrict, as much as possible, the admissions to these diseases and Small Pox.

TABLE 4.

Shewing the average daily number of sick during each month of the season:—

May 15th to 31st	451
June 1st to 30th	1508
July 1st to 31st	1454
August 1st to 31st	2021
September 1st to 30th	1330
October 1st to 21st	346

Average daily number of sick during the season 1307 8-159.

ART. XXXIX.—THE IRISH IMMIGRANT FEVER,

By FRANCIS BADGLEY, M. D., Lecturer on the Theory and Practice of Medicine, Incorporated School of Medicine, Montreal, &c. &c.

(No. 2.)

I now enter upon the consideration of the appalling malady which has been transported to, and committed such dreadful ravages on, the American Continent, and especially our own portion of it, during the past year. For the special purpose of obviating any quibbling that may arise in the minds of hypercritical readers or nosological sticklers, in consequence of a special name being assigned to it, I prefer, for the present, employing the appellation which heads this communication. But if the extraordinary nature of the eruption, extent of malignancy, rapidity of extension, and degree of fatality which mark the three great maladies, (cholera, yellow fever, and plague), included by my learned friend Dr. Copland, under the generic name of pestilence, justify, as they most certainly do, the application of this title to them, if Rostan be right in regarding the cholera as "La Peste Orientale," and the yellow fever as "La Peste Occidentale," because of their peculiarities, their points of similitude, and their fatality; then, indeed, for the same reasons, may we claim for this

disease a position among its fellows, and a place in the same category with them. For, that it has been a disease *sui generis*, all reflecting men (aust, I think, admit: that its characteristics have been distinctly and broadly set forth; that its propagation has been rapid and extensive—no one who has had any experience of it can for a moment venture to pronounce a doubt; and that its mortality has been fearful, the returns of deaths already published, abundantly prove. To myself individually, having no particular veneration for nosological systems, it is a matter of the most perfect indifference, as far as a name is concerned, whether it is styled typhus, synochus, nervous fever, or anything else; for we know, that a rose by any other name will smell as sweet; and we know equally well, that this disease, whatever designation we give to it, would bear, did it admit of personification, on its front, in bold and forcible characters, the terrifying warning, *danger and death*. For the same reasons I abstain from arguing upon the primitive causes which originated *this pestilence* in the beautiful, but sad country from which it has reached us. I shall neither side with Dr. Corrigan, in considering it, as well as all the epidemic fevers of Ireland, as the result of famine, which he regards as the para-

mount cause of them, when he says, "if there be no famine, there will be no fever; and if active and timely exertions be made to afford sufficient employment and wages to our people, I believe there will be neither famine nor fever;" nor shall I declare myself a disciple of his opponent, Dr. Kennedy, who argues upon what no well educated man will hazard a dissentient opinion, that "epidemic diseases, whatever be their causes, do not necessarily require famine as one of them, and that a proportion does not always exist between the degree of famine and the severity of the accompanying or ensuing fever; and that consequently the paramount cause and the spreading of this and all other epidemics are still hidden from our minds." Every writer will form, as he has the most unquestionable right to do, his own opinion in attempting to trace effects to causes; and with reference to this particular epidemic, we may find some with strong and apparently convincing arguments attributing it to absolute want of food or to a bad quality of it; others again ascribing it to peculiar endemic constitutions or conditions of climate, &c.; and a third class, taking a wider range as the basis of their ratiocination, combining the two, and adding even thereto, certain inscrutable manifestations of the workings of providence, with national peculiarities and idiosyncrasies. The consideration of this subject appertains more immediately, it may be thought, to the members of the Medical Profession in the sister Isle; but the importance of candidly and impartially weighing all the circumstances, and arriving at something like satisfactory results, with a view that action may be taken by the representatives of that heavily visited country, and the Imperial Government, attaches to the Medical Profession generally, inasmuch as it is a matter involving the safety or ruin of thousands of our Irish fellow-creatures, and of millions, perhaps, of individuals scattered over the earth's surface. Leaving, however, to others the investigation of this intricate but highly interesting question, let us proceed to examine the disease as fully developed and presented to our view; and in reflecting upon it, I propose to arrange the points of inquiry under the following heads: 1st, its nature or entity: 2nd, the manner of its propagation: 3rd, the period of its incubation: 4th, the complications manifested in its course: 5th, the sequelæ: 6th, the post-mortem appearances: and 7th, its treatment; and if in the course of the observations which I am about to make, any expressions or ideas shall appear to possess anything of a dogmatical or pedantic character, I entreat your readers to bear with me, not only patiently, but also kindly; for it is farthest from my wish to force upon them the adoption of any

visionary hypothesis, or to submit for their assent any notions, which I will not, at all events, endeavour to confirm or prove, either by reference to cases seen by other physicians in this city as well as by myself, by sober reasoning, or by having recourse to the published opinions of men, whose names will be a guarantee for my security against any charge of original desire to mislead.

I. What is the nature of this disease? The external appearance; lurid visage, tottering gait, mode of action, the low state of the functions of the sensitive and motile nerves, the marked indifference, or apathy, almost amounting to absence of thought and memory, produced by the depressed condition of the perceptive and reasoning faculties, in those who arrived in this country, without having undergone an attack of the disease while at sea; the indifference to food, almost annihilation of absorption, (ay, of that interstitial kind, which we would conceive necessary for the maintenance of even their low organic vitality) and consequent absence of deposition of new tissues, proved by the flabbiness of their muscular and integumental coverings; (although the volume of these did not appear to be diminished,) the rapid but weak action of the heart, the universal lassitude, exceeding malaise, almost amounting to universal muscular pain, complained of by nearly every individual to whom I addressed myself, and of whom hundreds were *considered* to be in a healthy state: all these circumstances forced upon my mind the reflection, that they were either in a state of anæmia, of what Gendrin calls oligæmia, or what is so admirably described by the late learned Simon in his Organic Chemistry, under the title of spanæmia: either there was an absolute deficiency in the amount of the circulating fluid, or that fluid, which was declared by the ancients, and afterwards believed by Harvey and Hunter, to be "for the life of all flesh," must be so deteriorated, disordered, or vitiated in its quality, that the great functions appended to organization could ill, or only very imperfectly be exercised by it. In few words, that the vast process of hæmatosis or blood formation was deranged or interfered with in some parts of its wonderful elaboration, commencing, as we know it does, at the stomach and terminating at the lungs. Whether this arises from the absence of one or more of the constituent elements of the blood in the food taken, or whether from the introduction of foreign, destroying, or poisonous agents through the medium of the atmosphere, I will not venture to hazard an opinion; but that the blood is in a state of disease, I will venture to say, and if so, and sufficiently to affect man's organic life, it cannot be wondered at that this should extend,

or its influence be conveyed to all the other component tissues of the body. How far this condition of the blood does really exist, will be attempted to be proved, in the progress of my remarks upon the complications, sequelæ, and by the post-mortem appearances. The conclusion at which I arrived, which appears to be borne out by the results of my private practice, as well as that of several of my professional friends and colleagues, whose views as to the nature of this disease are identical with my own, is, *that the blood in persons who have been subjected to the exciting cause of this disease, aided too by intrinsic and extrinsic predisposing circumstances, is deficient in fibrine, blood corpuscles, and probably the salts proper to it; that the fault exists at first in the hæmatisis, that the systemic heart not being subjected to its proper stimulus, (duly arterIALIZED blood,) becomes atrophied in its consistence, or molecular constitution; that it circulates blood which by degrees becomes totally unfit for the deposition of new tissues, and among the rest, of course, brain tissue, and the production in this of the proper vis nervosa; that the functions of the motific and sensific nerves are gradually impaired, the organic contractility of the tissues over which these exercise their control is destroyed, and hence, as in the case of the capillaries and vasa vasorum, the tendency to local congestions, and the ineffectual efforts at the establishment of sub-inflammation, but which almost invariably terminate by exosmosis, either of blood or serum. If these premises be admitted, there can be but one inference to draw: that the disease is one of faulty absorption, faulty nutrition, faulty assimilation, and faulty secretion—a disease of spanœmic blood, an adynamic fever.*

2. How is this disease disseminated? I answer, unhesitatingly and unequivocally, (nothing fearing the assertion, that an infinitesimal number of persons have been attacked with the disease, who did not remember ever having come in contact with immigrants); I repeat it, *by contagion, as its direct exciting means, aided and abetted by moral influences existing in the recipients.* It is not my intention to split a straw upon the supposed differences between infection and contagion; for I hold that whether the matter of poison be received into the mass of blood through the medium of the food that enters into the stomach; of the air that is inspired, or the matter that is absorbed through the cuticular surface, still, *contagion has reference to the blood, and the effects produced upon this fluid.* In the whole of my intercourse with persons affected with this disease, on enquiring into its origin, I have received but one answer: mediate or immediate connexion with those already diseased; the same conclusion has

also been arrived at by several of my professional brothers in this city. It would be more than useless to furnish numerous proofs of this assertion. But I will cite three remarkable cases which occurred in my private practice. Early in the season, a very respectable man, an Irishman, æt. 42, foreman on one of the public works, who had heard of the reported arrival of some people from his own neighbourhood in Ireland, by one of the steamers in port, left his duty to ascertain the fact. He was, and had ever been, during the fourteen years that he had resided in Canada, in perfect health; he reached the boat, boarded her, made his enquiries, and returned to his post, after an absence of less than an hour; on the third day, he felt so fatigued and aching that he could not go to his work; on the fifth day, when I was called in to see him, he was maculated. A very decent widow woman, æt. 46, a house-keeper in Bleury street, admitted, into one of her apartments, a female visitor to one of her lodgers, every person in the house (herself included) being perfectly well; on the sixth day after, I was requested to visit her, and found her laid up in bed, with all the characteristic symptoms of the disease. Between the period of the stranger's visit and her being taken ill, she had not been out of the house. A young man, strong and healthy, a carpenter, æt. 26, was taken on by the Board of Works to assist in increasing the accommodation for the emigrants at the old station, in the month of June; he had heard a good deal of the disease: had avoided coming in immediate contact with the sick; had declined to go into any of the sheds containing them; but on one occasion he was directed to assist in making ventilators upon the roofs of some of the buildings; he forgot his previous carefulness; was not sensible of any inconvenience arising from it until the next morning, when he was seized with rigors, lassitude, and vomiting. The next day I was sent for, he had the disease; his convalescence with the fever lasted upwards of five weeks. His wife, æt. 23, three months pregnant, took the fever before her husband's convalescence was complete, and lay ill for upwards of three weeks. And how many similar cases could I not give you, but it is, in my opinion, altogether unnecessary, for is it not a recognized fact that the great majority of all those persons who have been connected with the immigrants of the past season have suffered, some early, some late. And how many valuable lives have been sacrificed in the service? Clergymen, priests, physicians, emigrant agents, medical assistants, nuns, hospital nurses, orderlies, trades-people, laundresses, carters, &c., &c., in a word, whoever had any thing to do in furthering the good intentions of the

Government, in forwarding or contributing to the comfort, spiritual or bodily, of the great proportion of 98,000 human beings who passed through our city during the last nine months of the year just ended; all have incurred the same risk, and thankful to God should those be who have been permitted to form the exception in not having been thus called upon to pay the penalty.

(To be continued.)

ART. XL.—CHLOROFORM IN QUEBEC.

By W. MARSDEN, M. D.

The last number of your valuable Journal contains an account of the employment of chloroform for the first time in your city, or for aught we know to the contrary at present, in the Province; and as the use of any agent that promises so much for the relief of suffering humanity, as the one in question, must form an era in the medical world, I will offer no other apology for claiming a place in your columns for the following cases:—

They are both in their kind deeply interesting, independently of being the first cases of the use of chloroform in this city, so far as I know, besides establishing most triumphantly by their results, the paramount utility of this anæsthetic agent. The first case was that of a patient in the Marine Hospital, the removal of both of whose legs had become necessary, from the effects of frost; the other, that of a youth in the private practice of Dr. James Douglas, with chronic enlargement of the tonsils.

Case I. Pierre Francois Lamare, æt. 33, mariner, a native of Cherbourg, in Normandy, of bilious-nervous, temperament, was admitted into the Marine and Emigrant Hospital, on the 21st January, with frozen feet. He had been a seaman on board the ill-fated vessel, the "*Emigrant*," and had had the Irish emigrant fever last autumn, at Grosse Isle, from which he recovered; and, on coming to Quebec, he had the misfortune to ship on board the "*Margaret Pollock*," homeward bound, and was wrecked in the River St. Lawrence, with that vessel. He was afterwards overcome by cold in the woods, in endeavouring to make his way to the sea coast on foot, through the American territory, which led to his admission to the Marine Hospital as above stated.

The amputation of both legs having been previously rendered necessary, and decided upon, it was deter-

mined to remove them both at the same time. On Friday, the 4th inst., he was brought into the operating room, and placed upon the operating table about half past ten A. M., in the presence of a large number of medical practitioners, students in medicine, clergymen, &c. Dr. James Douglas amputated the right leg, and Dr. James A. Sewell the left one.

A piece of lint having been placed in a funnel-shaped piece of sheet lead, open at both ends, about a drachm and a half of chloroform was poured upon the lint, and then applied to the mouth and nose of the patient, to be inhaled or inspired. There was at this time a considerable degree of nervous excitement about the patient, with small pulse, about 126. Soon after the application of the chloroform, (say about 45 seconds,) the pupils which were before contracted, began to dilate; and in about a minute and a half from the first, the ball of the eye was completely surversed, showing little, excepting the white of the eye; and the amputation was commenced by both gentlemen synchronously. The breathing of the patient became somewhat laborious and quick soon after applying the chloroform, which was probably occasioned by the outer aperture of the leaden funnel being rather small; and the body and arms became slightly convulsed, so as to render it necessary to secure the latter. The motion or struggling was not that of pain or resistance, but rather like epileptic convulsions. From the time the operation commenced, until the complete removal of both limbs, which occupied about three minutes, there was total and entire insensibility on the part of the patient; and from the time he began to feel the effects of the chloroform, until this period, the pulse gradually diminished in velocity, and increased in force, until it became full and natural, and about 96, at which it remained after his return to consciousness, which was marked by the unfolding of the ball of the eye, contraction of the pupils, and cessation of spasmodic action; and, in reply to the first question put to him, he said, (alluding to the sutures that were being inserted,) "*Les aiguilles sont dures*." On asking him if he felt pain, or had felt the removal of his legs, he replied, "*Je n'ai rien senti du tout*." His returning sensibility induced a medical gentleman who was standing by, to renew the application of the chloroform; but it was only continued for a few seconds, not being deemed necessary, so that the ligatures were applied, and the stumps dressed, whilst the patient was in a full state of unconsciousness. In reply to an enquiry—What were his feelings whilst under the influence of the chloroform? he replied that "he felt no pain, and was unconscious of what was going on about him, and that he felt his head spinning

* Since writing the foregoing, I have learned that the chloroform had been used in hospital practice twice previous to this case, and with the most satisfactory results. Dr. Douglas has since, also, twice used his own chloroform with unexceptionably satisfactory results.
W. M.

round like the handle of a winch." The time occupied in the operation was very short, and the loss of blood comparatively trifling. The nervous shock was scarcely perceptible, the patient being cheerful, and even lively, and not evincing the slightest depression or weakness, as is usual after similar operations, without anæsthetic agents. I will, Mr. Editor, for the present, merely report these cases, reserving for a future time my remarks and observations on the particular effects and advantages of chloroform.

Case II. The next case is that of John Francis Hammond, æt. 14, and son of the keeper of Bic Light-house, a native of Jersey. At about six years of age he caught cold, when the disease, enlargement of the tonsils, was first perceived. The enlargement was so great as almost to fill the œsophagus, the uvula lying in close proximity with them; and the hearing had become obtuse from their pressure upon, and obstruction of, the eustachian tube. Other remedial means having been resorted to without effect, the removal of the tonsils was decided on as the only certain mode of cure; but the obstinate and continued refusal of the young patient to submit to the pain, was the means of preventing its sooner being effected.

On Friday, the 4th instant, at about half past twelve P. M., having related to him the result of the case above reported, he consented to submit to the operation, providing he could be made unconscious of pain. A small quantity of chloroform, about a drachm, was accordingly used in the manner before described, and its effects were soon apparent in the pupils and eyeballs, but not quite so soon as in the former case, perhaps on account of volition. With one hand placed upon the head, (which was also held by an assistant,) and the other upon the under jaw, I opened the mouth and held it, whilst Dr. James Douglas secured the tonsil, (the right and largest one,) with the forceps, and removed it, which was effected before consciousness or feeling returned. The muscular power was completely passive, and no resistance offered, insensibility being complete; for on the return of consciousness, which took place immediately after the extirpation of the tonsil; (and as soon as the hæmorrhage would permit him to articulate,) he asked, "What has been done?" and on being told that one of the tumours had been removed, he shook his head, saying, "Oh, no!" and on being re-assured that such was indeed the case, he said, with

the most unfeigned incredulity, "*Eh bien! montrez moi le donc;*" and on its being shewn him, his astonishment knew no bounds, and he at once exclaimed, "*Otez moi l'autre tout de suite.*" The chloroform, however, being expended, his wish could not be gratified at this time. His last exclamation showed, incontrovertibly, that *complete insensibility* must have been produced, since the lapse of a few minutes only had converted an unwillingness into desire; and on being told by his father a few days previously, in my presence, that if he did not submit to the operation, he would die, he declared that he would rather die than submit.

Dr. Douglas at once determined, with his characteristic perseverance, to try to manufacture some chloroform, well knowing, that at any future time, he might need the article, when it could not be procured for a day or two, even with the aid of the Magnetic Telegraph; and the reward of his perseverance, after several trials, has been the obtaining the desired article.

On Friday, the 11th instant, at about half-past nine A. M., the boy was again placed under the influence of the chloroform, which had been manufactured by Dr. Douglas, and the other tonsil was removed, with the same results as before. The only difference in the effects were, that he was longer in coming under its anæsthetic influence, and longer in recovering from it, also. The probable reason why he was longer in coming under the influence, on this occasion, of the chloroform, than on the former one, was the repeated and imperfect trials of the agent between the 4th and 11th instant, by which he had become somewhat familiarized with its effects, added to his extreme unwillingness to yield to its influence, and his natural resistance; but experience alone can establish the correctness of this supposition. It was not until several minutes, (probably ten,) that he was aware that the operation had been completed; and his delight and astonishment were unfeigned, in his exclamation, "*Quoi est il possible que c'est oté?*"

The result, then, Mr. Editor, of both these cases, fully establishes the utility of this invaluable discovery. In the one case, both legs were amputated at the same time, without the slightest feeling of pain or consciousness; and in the other, both tonsils were extirpated from a most unwilling patient, under similar highly favourable circumstances.

Quebec, February 15, 1848.

ART. XLI.—MEAN RESULTS OF METEOROLOGICAL OBSERVATIONS—HAMILTON, C. W., 1847.

By DR. CRAIGIE, Hamilton.

MONTH.	THERMOMETER.					BAROMETER.			RAINY DAYS.	DAYS WITH SLIGHT SHOWERS.	FINE DAYS.
	MEAN, 9 A. M.	MEAN, 9 P. M.	MEAN OF BOTH.	HIGHEST.	LOWEST.	MEAN HEIGHT.	HIGHEST.	LOWEST.			
January	25.774°	26.290°	26.032°	51	2	29.850	30.17	28.90	5	7	19
February	25.786	27.678	26.732	45	2	29.594	30.03	28.86	4	9	15
March.....	32.42	32.48	32.45	54	10	29.69	30.05	29.15	2	3	26
April.....	46.03	43.2	44.615	77	20	29.657	30.06	29.18	3	6	21
May.....	59.54	55.26	57.4	84	34	29.665	29.00	29.20	2	7	22
June.....	67.16	61.4	64.28	90	41	29.649	29.96	29.10	3	9	18
July.....	78.6	71.6	75.1	96	46	29.752	29.98	29.50	1	5	25
August.....	71.19	66.13	68.66	88	48	29.75	30.02	29.42	2	7	22
September.....	60.66	58.56	59.62	86	39	29.694	30.04	29.37	5	10	15
October.....	47.9	48.03	47.965	72	24	29.707	30.34	29.07	4	7	28
November.....	41.77	41.93	41.85	71	11	29.695	30.19	29.30	5	8	17
December.....	32.7	33.8	33.25	58	11	29.667	30.02	28.97	5	11	15
Mean Temperature of the Year,.... 48.163						29.681			41	89	235

ART. XLII.—ON THE STATE OF EDUCATION IN CANADA.

THE SUBJECT CONTINUED.

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 1847.* 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 Reports of Common Schools for Lower Canada for 1845 and 1846.* Montreal, 1847. By Dr. J. B. MEILLEUR, Chief Superintendent of Education, Lower Canada.

In resuming the thread of our desultory observations on the vitally important subject embraced by the above public documents, we owe an apology to our readers for the heavy tax already imposed upon their patient indulgence in our last article; but it so happened that while we felt the necessity of immediate action, our state of health incapacitated us from taking a more clear and elaborate, as well as more concise view of our subject; and we fear that the same excuse will have to be urged in behalf of our present remarks; which, on that account, but for the necessity of the timely redemption of our promise, we should have preferred postponing till a later occasion. We shall endeavour, however, to be as brief as possible; and, should we prove unsuccessful, we trust it will be charitably ascribed, more to the fear

of omitting what we may deem important to our purpose, than to any fancied superior ability for discussing the merits of a most momentous, yet ill-appreciated subject, to the support of which a simple, straight-forward statement of facts, will ever prove far more conducive, than the display of even the most brilliant talents; and to the former of which alone we presume to lay any claim.

It will be in the recollection of our readers, that we stated in the outset of our last article, as a remarkable fact, that the first really decisive step in behalf of the *education of the people* of Upper Canada, through the medium of *Common schools*, was taken by the first united parliament, in 1841. It is equally remarkable that the same may be said to have been the case with regard to the Lower province also; for though an apparently most auspicious movement towards what might be considered the counterpart of the ill-fated *Royal Grammar Schools* of Upper Canada, took place so far back as 1801, in the passing of an act for "the establishment of free schools, and the advancement of learning, on a *royal foundation*," under the imposing name of "*The Royal Institution*;" no effort in behalf of far more necessary *common schools* was made till so late as 1824, when an act was at last passed, "to *facilitate* the establishment and endowment of *elementary schools* in the different parishes of the province." But instead of these two enactments being harmonizing branches of one well organised educational system, they were altogether independent of each other, and were, therefore, never productive of the hoped for beneficial results; and such, it may be stated, was also the fate of the apparently promising Normal school bill of 1832; and all arising, it might be inferred, from the same latent cause as the failure in Upper Canada, namely, in the beginning having been made at the wrong end.

In proof of this uncomplimentary remark being, but too well founded, it is sufficient to remind our readers

that though the *intentions* of "the Royal Institution" might have been excellent, no suitable *royal* donation (such as in Upper Canada) or any other special fund, having been allotted by law for carrying its provisions into effect, it would have proved altogether a nullity, but for the subsequent successive laudable exertions of the *local* legislature, in behalf of education generally. In fact, as far as *royal* aid in support of the act alluded to, is concerned, until the appropriation of the revenues of the late Jesuits' estates "to the purposes of education alone," little more appears to have been accomplished by the law which created the Royal Institution than the empowering of the governor to appoint and incorporate trustees, by that title, "for the establishment and management of one or more free schools in each parish or township, and of other institutions of *royal* foundation, for the advancement of learning," with power to acquire, hold, and devise property in favour of the same, and to form rules and regulations for the guidance of all such schools as should be erected; these schools, however, being left to be provided at the expense of the inhabitants of townships and parishes, in the same way as the erection of churches and parsonages; but the nomination of the masters, and the fixing of the amount of the salaries, to rest with the governor.

The same fate might also have attended the similarly inexplicit first Common School Act, passed in 1824, but for the subsequent laudable action taken by the local Legislature in behalf of general education, already alluded to, no special fund being set apart by it for carrying so excellent a measure into effect; the bill, in fact, only aiming at "the *facilitating* of the establishment and endowment of elementary schools, as diffusive of the principles of a good moral education, and contributive to the promotion of industry and agriculture; and in that character simply enabling *fabriques*, or parish authorities, to acquire property for the benefit of elementary education, and to establish schools in each parish under their management, in the proportion of one to every hundred resident families; and to apply a certain portion of their funds to the maintenance of such institutions." Fortunately for the country, however, full amends was made for any omission in this particular bill, by the rapidly growing interest which about that time began to be taken by the Provincial Legislature in the furtherance of education generally, evinced in continued yearly liberal appropriations of various sums for the encouragement and support of educational institutions of every kind, in all parts of the country—from mere elementary schools and classical academies, up to colleges of a more enlarged character, including even schools on "the royal institution" foundation. To enumerate the particular appropriations alluded to, would fill a page; suffice it, then, to state, that in this good work the Legislature of Lower Canada far outstript the doings of the sister Province—the yearly and other grants in favour of education continuing rapidly to increase, until in 1832 they amounted to upwards of £32,000, and in 1836, in spite of the unfortunate discordant spirit then prevalent, had advanced beyond £36,000; and it is believed that the same liberal provision for the dissemination of education continued to be temporarily made by

Ordinance, during the subsequent disturbed times, until the dawn of that eventful era, for weal or woe, the reunion of the two Provinces.

Having arrived at a critical period of our public affairs—when so much was to be expected from cautious and judicious legislation, by a *united Parliament*, and so much was to be hoped for, from giving a right direction to the public mind, in the furtherance of so vitally important a popular object, it may not be out of place to revert, a little more in detail, to what had been previously accomplished in the Lower Province; and in this we shall have little difficulty, with the indefatigable Dr. Meilleur for our guide; for that gentleman states, in his very creditable Report for 1842, that "under the influence of the Education Act which expired in 1836, there were 1530 schools in operation, at the rate of £20 a year for each, and that £36,406 were paid for the last year; but that portions of this sum were devoted to half the cost of the school-houses at the rate of £50 each, to paying for the teaching of any other language than that of the majority of the scholars at the rate of £4 to each master, and to paying 10s. for each poor child, and also 10s. per school in rewarding children who had made most progress. And, further, that under the influence of this expired Education Act, it appears that the following sums were annually paid by Government for this object, viz. :—

In 1832.....	£32,470
1833.....	22,154
1834.....	24,543
1835.....	25,816
1836.....	36,406

Giving an average, exclusive of fractions, of £28,277 for each year.

Such, then, was the encouraging prospect at the period of the Union. Let us now inquire, how far the Legislative measures, which have been since adopted, have tended to advance that promising state of things or otherwise.

We have more than once attached great importance to a beginning at the right end; and it was, therefore, with lively satisfaction, that we contemplated the auspicious move in that direction made by the framers of the Union Education Bill of 1841, in the disposition avowedly manifested to produce a gradual amalgamation of feeling between the inhabitants of the two rival Provinces, by the introduction of a great educational system that would be likely to prove acceptable and practicable in both.* Short, however, was the gleam of hope thereby inspired; for, unfortunately, the working of a vital part of the details of this important measure was made dependant on the successful introduction of that grand step towards self-government—*District Municipal Councils*; and so impatient was the nobleman then at the head of the government to carry through the latter favourite object, without reflecting how far it would prove acceptable to the people of both Provinces, or otherwise, that the Education Bill was unreflectingly pushed through Parliament in connexion with it, without giving time for considering the latter so maturely and deliberately, *per se*, as to afford a fair chance of pro-

* The reader will bear in mind that this auspicious move was made by the Attorney General of Lower Canada.

ducing a systematic arrangement of so well digested a character as to be likely to require little or no amendment for at least a few years to come. The unfortunate consequence was, that the Education Bill, instead of undergoing that patient and dispassionate consideration in all its details, by both houses, which a matter of such vast, such paramount, importance to the welfare and interests of the people demanded, was no sooner carried through the House of Assembly, than it was thrust upon the Legislative Council on the eve of a prorogation, to be either unhesitatingly acquiesced in by them, "with all its imperfections on its head," or to have the country left without any provision for education at all. In this embarrassing dilemma, the latter course was deemed the most advisable; and the bill was accordingly passed, although some members had never seen or read it, and who, therefore, in giving their reluctant assent to the measure, *in the sole hope of its proving at least better than none*, protested against such breathless haste in legislating upon a question pregnant with such eventful results to the people of both Provinces.

That our readers may be aware how far the foregoing remarks are borne out by facts, we beg to bring to their recollection a portion of the very appropriate observations made by the Hon. Mr. Day, the minister who introduced the Bill in the Lower House, as well as the prophetic feelings expressed by the Hon. Mr. Morris, in deprecating the uncalled for premature adoption of it by the Legislative Council. The former of these gentlemen stated, that "the object of the present motion was the repeal of the existing laws on this subject in the two divisions of the Province, and the substitution, in their place, of a general system which should extend to the whole Province, and embrace the entire population. The subject was one of the greatest importance, and which threw a great moral duty on every man to lend his aid towards supporting it. Those acquainted with the subject, well knew that the present measure was but a part of the great general system of national education, which would take place in, not merely the establishment of Common Schools, but also of Model, and more especially of Normal Schools, which would train up young men to act as teachers and instructors. Of this system, the establishment of Common Schools would be the foundation upon which all the rest would lie; and if prudence was only observed in proceeding, there was no reason why every thing should not be done on this basis which the importance of the subject required. In order, however, to secure success, it was necessary that the system introduced should be ample, effective, and popular, and that it should not interfere with the prejudices of those for whose benefit it was intended." * * *

After adverting to the various acts in favour of Government, which had been passed in Upper Canada, and stating that there was but one opinion on the effects of these measures—that they had failed to effect the important object in view—the learned gentleman proceeded to observe, that, "If these means for the encouragement of education were so much required in Upper Canada, how much more were they required in Lower Canada! There, no legal establishment existed—no provision of the law—by which the people could obtain access to

education. With the exception of a few institutions—supported by private benevolence, and maintained by the exertions of a class of men to whom he could not pay too high a tribute of praise—he alluded to the Roman Catholic clergy—no means for public instruction existed. The total population of that Province was estimated at 600,000, out of which one-fifth were without the means of education; and this young population was growing up to the exercise of important duties, totally ignorant of the nature of those duties. He would not join in the censure which had been so abundantly dealt on the Legislature. The truth was, that there had been a great deal of legislating on the subject, extending back to the 41st of George III., which attempted the foundation of a *Royal Institution*, but was productive of no effect. Since then, several acts had been passed, in 1814, 1818, and lastly, in 1823, which last was of great importance, and must have produced the most beneficial results. Its effect was to divide the country into (school) districts; and so important was it considered, that it had been extended by subsequent statutes down to the 2d of William IV.; C. 26, which existed up to the time of the suspension of the constitution: since when no provision for the maintenance of schools had been made."

On the matter being formally taken up in the Upper House, the Hon. Mr. Morris took an opportunity of deprecating in strong terms any thing like hasty legislation on so very important a subject, followed up by submitting a series of resolutions, proposing that, instead of hurrying the Bill through that Session, at the risk of the adoption of a defective exceptionable measure, a Parliamentary commission should be appointed, to remain after the adjournment, composed of members of both Houses, with a clergyman and layman of the leading denominations of Christians, for the purpose of maturing and preparing a well digested system for the better education of the youth of the Province in endowed Common and Grammar Schools—as Seminaries, preparatory of pupils for any University that might hereafter be established. And on the Bill being at length suddenly laid before the House by the Select Committee appointed to report upon it, he again spoke strongly on the subject, and was heartily joined by the Hon. Mr. De Blaquiere, in earnest protestations against the inconsiderate manner in which so important, yet imperfect a measure, was hurried through Parliament, on the very eve of a prorogation; though they both declined opposing the passing of the Bill, lest the country should thereby be altogether deprived of the benefits expected to be derived from it.* The consequence was, that the Bill was passed in that defective, and, as regards the feelings of the people, otherwise objectionable state which, in spite of the generally excellent materials of which it was composed, and the various subsequent attempts at amendment, has not only still left an otherwise invaluable boon more or less unacceptable to the inhabitants of both Provinces, and more particularly of Lower Canada, but led the way to the introduction of a most impolitic and uncalled for practice

* The Bill was hastily reported on by the Select Committee, (the chairman of which dissented from the measure) the very day before Parliament was to have been prorogued.

of legislating for the two Provinces separately, connected with subjects on which there ought to be but one common *amalgamative* opinion and law, and in the promotion of which the most cordial reciprocity of good feeling and generous emulation among all races and sects should be encouraged and promoted.

It is true, that the generally successful introduction of those deservedly *popular* institutions—District Councils—in Upper Canada, has, there, in a great measure, removed the chief difficulties in the way of the amended education bill; and it may therefore be reasonably hoped, that, as far as that part of the province is concerned, time alone is wanting to allow the beneficial working of the present school system to be better understood, and enable its inhabitants to form a just appreciation of the inestimable blessing thus placed within their reach. But such, alas! as might have been reasonably anticipated, has been far from the case in *Lower Canada*; and it ought, therefore, to have been provided, from the first, that until such should take place, the successful operation of whatever educational system might be intended to be adopted there, should be entirely independent of any other measure whatever.

Having now reached a very critical stage of our remarks, as regards the Lower province, it is but justice to the government and the legislature, as well as to the friends of intellectual improvement at large, to endeavour to inquire more distinctly wherein lies the *still* insuperable obstacle to the attainment of so truly desirable and invaluable an object as the general instruction of a people; and this we hope to be enabled to discuss in a spirit of candour and good temper, worthy of so sacred a cause; and therefore if, in giving expression to what we conscientiously believe to be the truth, our observations should perchance prove rather unpalatable to a portion of our readers, we have to beg that they may, at least, be received in good part, and reflected on dispassionately, before they are pronounced either unjustifiable or erroneous.

In the first place, then, it appears to us, altogether independent of those two great fundamental errors, as regards Lower Canada—the unfortunate linking of the Education Bill with that for the institution of Municipal Councils, and the unwise and even unequitable attempt to render the people's share of the school fund at all dependent on uncertain voluntary subscriptions, instead of a uniform general assessment,—that however meritorious the previous exertions of the Legislature in behalf of popular instruction may have been, it may become a question whether they had not gone beyond the proper limits, in making the Government do too much, and leaving the people to do too little for themselves, and thereby leading the latter to infer that, far from being taxed for such a purpose, education was to be bestowed upon them almost gratuitously—nay, in a great proportion, altogether so; for what else could be inferred, when in a young and thinly peopled agricultural country like Canada,—where such an unfortunate being as a *pauper* should be almost unknown,—so large a portion of the population were thereby placed on a degrading eleemosynary footing, in providing for the education of their children, while the remainder were

induced to regard the paltry annual outlay of from one to two dollars, as more than an equivalent for so inestimable a blessing.* Yet such would appear to have been, in a great degree, the humiliating case up to the period of the union; and the natural consequence was, that any subsequent attempt to provide a supply of respectable, well qualified teachers, by imposing even the most trifling general tax in addition to the liberal Parliamentary bounty, either by the Government direct, or through the supposed more popular medium of Municipal Councils, or to exact an equally trifling additional payment from the parents of children attending school, was, and still is, regarded in some parts of the country, as an act of the most oppressive and tyrannical character. Of this, however, more hereafter.

In the second place, we are disposed to believe that, notwithstanding the unceasing laudable exertions of the clergy, instead of due pains having been generally taken to overcome the people's unreasonable prejudices against the new Education Law, on account of the novel trifling *self-taxation* thereby imposed, it was either taken very little interest in in the most influential quarters, or left altogether at the mercy of whatever restless or designing political demagogues chose to make use of its easily misrepresented principles and objects for the very worst of purposes; and hence the popular dislike to the measure has continued to be strengthened rather than otherwise. Nay, one might almost infer from what fell from some of our Legislators during the debate on the Bill of 1846; that, instead of an anxiety to promote "the onward march of mind" and independent feeling, there was an indifference, if not an objection, to the general education of the people, lest they should become capable of judging, for themselves; in place of, as in their present unhappy state of ignorance, being obliged to pin their faith on the *dictum* of any discontented or designing demagogue, among the few who have benefited by education, and having thereby gained an ascendancy over their illiterate neighbours, are willing to monopolize to themselves all the local influence and other advantages thereby acquired. In fact, it must be generally conceded that, notwithstanding the great outcry made by a certain class of popular declaimers about the blessings of "responsible Government," and more especially the *people's right to self Government*, as at once the grand *primum mobile* and ultimate test of true "*responsibility to the people*," there are few countries in the world where the inhabitants, as yet, less understand, less feel that noble, or are less prepared to enjoy, the exercise of that noble right, than the worthy "*habitans*" of Lower

* It would appear from the manner in which one Hon. member of the Legislative Council alluded to the necessity of forcing the people to pay half a dollar, or a dollar, a year towards the education of their children; and another insisted on even a higher rate, of from one to two dollars, that a general tax alone was referred to, and that it was considered that that paid, education would cost parents nothing; an arrangement that, however plausible and liberal it may appear, is not based on equitable principles, and must strike at the root of independent feeling; for even the poorest man should, if possible, be encouraged to put himself under no obligation to others for the education of his child! Besides which, it has ever been found, that what is got for nothing is little valued, whereas what is paid for, be the price ever so trifling, is sure to be set more store by.

Canada; and that such is the melancholy truth, those who are loudest in the premature demand, are but too conscious;—and all arising from the existence of that one bar to proper self-respect and self-dependence, as well as self-government, which the Government are labouring to remove, but which they would perpetuate, namely, the low standard of education still prevalent throughout the country. Whereas, in proportion as that debasing impediment is overcome, the people will be found prepared to think, judge, and act for themselves; and the reign of the demagogue will then be at an end.—A state of things nearly approaching to that deplored by us is so aptly illustrated in M. Cousins' admirable observations on the necessity of a more general diffusion of superior elementary instruction in France, independent of a higher classical or college education, that, limited though our space be, we are tempted to adduce the latter in support of our own humble arguments, for the benefit of our worthy fellow-colonists of the same national origin. "In France," observes that eminent man, "primary education is but a scantling; and between that education and that of our colleges, there is a blank; hence it follows that every father of a family, even in the lower part of the *Bourgeoisie*, who has the honourable desire of bestowing a suitable education on his sons, can only do so by sending them to college. Serious inconveniences are the result. In general, these young men, who are not conscious of a lofty destination, prosecute their studies with little assiduity; and when they return to the profession and habits of their family, as nothing in the routine of their ordinary life occurs to recall and keep up their college studies, a few years are sure to obliterate the smattering of classical knowledge they possessed. They also frequently contract at college acquaintances and tastes which make it almost impossible to accommodate themselves again to the humble condition of their parents; hence a race of restless men, discontented with their lot, with others, and with themselves,—enemies of a social order, in which they do not feel themselves in their place, and ready, with some acquirements, a talent more or less solid, and an unbridled ambition, to throw themselves into all the paths either of servility or revolt!"

To these highly apposite remarks we may be permitted to add, that instead of the bulk of our Canadian brethren being as yet sensible of a more general extension of education among all ranks being either necessary or desirable, in the ordinary intercourse of social life, it is not unusual—as candidly admitted by one of our legislators—for the French Canadian farmer to be so utterly unconscious of the value of any education whatever, as to be found saying, "I have had no education myself, and yet I have cultivated my land; and why should not my children do the same?" And even at best, a preposterous idea seems to prevail, that if a person in any station of life happens to become at all tolerably educated, he must, as a matter of course, aspire to become a member of one of the learned professions, instead of being content to turn the little extra knowledge acquired by him to far better account, in the more creditable discharge of his

moral and social duties in the natural sphere of himself and family.

Having dwelt so long on the gloomy side of the prospect, we gladly turn to the more cheering contemplation of the laudable efforts which have, from time to time, been made in behalf of a more satisfactory state of things, preparatory to exhibiting a condensed view of the existing general results in both provinces.

In the first place, then, it becomes a pleasing duty to express our sense of the continued untiring exertions of the clergy of all denominations, but more particularly of those of the Catholic church, and of the benevolent religious ladies of the various charitable orders, in behalf of the extension of general education, in all its branches, as evidenced in the many philanthropic asylums, and elementary schools, as well as in the higher seminaries and colleges founded and conducted under their immediate auspices; and, did our space permit, we could not do them justice more appropriately than in the language of the worthy superintendent of education; but we are compelled to forego that pleasure, that we may be able to devote more attention to Dr. Meilleur himself, as an energetic labourer in behalf of popular instruction for more than twelve years, either as a private gentleman, or a member of the legislature, or latterly as the Government Superintendent of Education in the Province.

It is a remarkable fact, as respects Lower Canada, that it is not for want of public advocates of the good cause, that education is not there in a more advanced state, compared with the Upper Province; for various patriotic individuals, besides the clergy of all denominations, appear to have, from time to time, devoted themselves to the duty of zealous pioneers in the noble work; and among these, Dr. Meilleur, as already alluded to, published a series of letters on education about twelve years ago, of which it is sufficient commendation to say, that they attracted the attention of Lord Durham, and that they advocated the greater part of the system which has been since introduced. In 1841, also appeared another able advocate of popular instruction, in Charles Mondelet, Esq., who published, on the eve of the meeting of the first united parliament, a series of short letters on elementary and practical education, noticed at the head of this article, containing many valuable and appropriate suggestions, with reference to that particular period, combined with the highly laudable and amiable main object of, *if possible*, doing away with all odious national distinctions, inducing a better state of social feeling, and founding an improved system of general education, on a basis securing the rights and privileges of all classes, whatever may be their origin, religion, or politics; and which, therefore, well merited being in the hands of every friend of education, as well as every well-wisher to the prosperity of United Canada.*

* We cannot resist adding that a fresh instance has occurred while this article was in the hands of the printer. Mr. assistant-Secretary Parent having, on the 18th of February, delivered, at the French Institute, an excellent lecture on the existing state of Education and the Educational Law in Canada, in presence of a highly respectable and crowded audience. We understand that this discourse is to appear at length in the French journals; but we trust that it will not be allowed to remain confined to that

For our readers to be aware of the general scope and merits of this well-timed little work, it might be sufficient to observe, that with some features peculiar to itself, it advocated in a great degree the outline of the Bill of 1841—the learned framer of which cordially acknowledged his obligations to its author for considerable assistance; and that, as already observed, it earnestly advocated the adoption of an educational system that would be acceptable to all races and sects; But common justice to the highly intelligent and patriotic writer, demands something more at our hands. We therefore gladly add, that after premising that education, elementary and practical, in Canada, is necessary to the young, and through them most influential on those of mature age, and that the results of a proper course in that respect are of vital importance to all classes in this distracted country, he very justly proceeds to observe: “Common or primary schools are one of the most interesting institutions in any well organized society; they are regarded as the great sources of elementary instruction; no community is safe without them; no Government is secure if it neglects or proscribes them. An enlightened people will, in most cases, guard against the corrupting influence of bad rulers. It will be equally free from the snares of ignorant or of intriguing and unprincipled demagogues. In either case the governed will escape the tyranny of one, or of the many. The cause of education is, therefore, the cause of liberty. Independent of these most important results, the moral character of the people, taken collectively,—the individual character of each member of the community,—is elevated by education—man is bettered; and of course the state of society improved. The duties of man towards his Creator, those he owes to his Government, and the rules he has to be guided by in his intercourse with his fellow men, will be sacredly or lightly attended to in proportion to the improved or neglected moral sense. The prosperity of a country will of course be greater in proportion to the individual, or to the collective industry of those who inhabit it. The success of the husbandman, the merchant, the trader, the mechanic, the seaman, in fact, the success of all, must depend on their knowledge of the art, calling, or trade they are engaged in, and consequently the general and individual prosperity and happiness are essentially dependent on the degree of intelligence and practical knowledge prevailing in a community. Common or primary schools, in which the elements of a sound and useful popular education are taught, are, therefore, of the highest importance to the country, and should excite the most lively interest.”

Impressed with this noble feeling, the same patriotic author in subsequent letters thus expresses himself:—“The united Legislature cannot, ought not, and will not, allow the first session to pass by without duly maturing and adopting a system of elementary and practical education. Our Legislature will not, I trust, content themselves with a servile imitation of the governments of the feudal ages, always bent upon patronising

academies, colleges, and universities, for the education of the few; and, in their selfish and inhuman career, leaving the bulk of the people in ignorance and degradation. * * * Let us, therefore, whatever may be our origin, our religion, our politics, join heart and hand in the noble cause of education: on the success of our efforts depends our happiness; but the failure of our endeavours must be followed by worse consequences than the most timid are likely to apprehend.”

He then proceeds to observe, that “as the want of a general and uniform system of elementary and practical education is extreme in Lower Canada, no time should be lost in adopting such means as are calculated to remedy so great an evil; and that as national distinctions and prejudices are most formidable obstacles to the carrying into operation of a uniform system, means should at once be adopted to surmount them. And, further, that there being a mutual distrust prevailing in a very high degree in respect to language—the English population being impressed with the belief that the French Canadians are averse to the spreading of the English language, and the French Canadians, on the other hand, are apprehensive that efforts have been and are being made to wrest from them their vernacular, and force them to speak the English language—let there be established in each locality, as far as practicable, a French and English school, either in one and the same building, or in two distinct houses. The result is inevitable. The English parent seeing, in the midst of the French settlements, English schools, will very naturally say to himself: ‘Surely the French Canadians are not hostile to the spread of the English language; it is better that I should send my children to the French school; they will learn both languages, and get on much better in the world!’ The French Canadian parent also will at once find out that he is not forcibly to be robbed of his language; he will see the propriety of having his children taught the English language; which will enable them to clear their way to usefulness; and he will therefore send his children to the English school. Thus, the mutual distrust, now prevailing, will vanish, to make way for mutual confidence. Both populations will cease to fear, what they now dread so much; their anticipations and their hopes will not be visionary, there being nothing to oppose to facts; English and French schools working simultaneously will be unanswerable arguments. * * Peace and happiness being restored, the working of a sound system of education becomes easier. In the first instance, it has been the effect; it must now become the cause of a state of things bettering every day.”

The same generous amalgamative spirit pervading the whole of this patriotic writer’s observations, we are content to remark, for the present, that we cordially acquiesce in the most of them, and in none more than in the moral necessity as well as undeniable justice of a light general tax for such a purpose—*if* in addition to a trifling sum to be paid by parents who send children to school; but we are inclined to think that the extra imposition of a *fine* upon those who do not choose to avail themselves of the schools, be the purpose to which that fund will be devoted what it may, would savour too much of the despotic, though otherwise excellent, Prus-

sian system, to be acceptable, the very praise-worthy examples of our neighbours of Massachusetts and Connecticut to the contrary notwithstanding; and we are rather inclined to believe that it would prove more beneficial, as well as more popular, for the burthen on those of small means but large families to be alleviated, by a progressive diminution in the monthly school dues in proportion to the number of children; thus, for the first, say 1s. 3d., for the second 1s., for the third 6d., and the fourth to be gratis. We also gladly subscribe to the propriety of encouraging a cordial feeling among the youth of both races, by French and English schools being, wherever practicable, placed in kindly juxtaposition, as pregnant with the most desirable results in the intercourse of after life; and we mark with equal satisfaction the importance which the writer attaches to the due promotion of female education.* All, therefore, that remains to be added is our hearty commendation of his patriotic suggestions, mingled with our deep regret that they were not attended with better success.

Having so far discussed the merits of M. Mondelet's laudable little work, it is full time to return to the labours of Dr. Meilleur.

In that gentleman's Report for 1842, while deploring the existence of that unfortunate stumbling-block in the way of the first Education Bill—the popular aversion to the introduction of District Municipal Councils—full justice was done to the zealous exertions of the clergy to give impetus to the Act, as having been so much the greater, in proportion as the obstacles became more invincible, from the want of the effective co-operation of the Municipal Councils; but it was at the same time candidly admitted, that popular institutions, although they had been asked and expected for a number of years, were, for the people of Lower Canada, things yet new; and that it was, therefore, not surprising that where such institutions were yet in their infancy, the people should not at once be able to perceive distinctly in the combined and complicated machinery of these two laws, all the advantages which may result from their respective operations, though they might be found to work well separately; and he, therefore, very properly begged that till that should be the case, the Canadian Bill should be altogether independent of the municipal ordinance, and entrusted to the entire and exclusive direction of educated local School Commissioners, under the guidance of the Provincial Superintendent, “the fact being that the granting of municipalities to the inhabitants of Lower Canada was premature,” and for this simple reason, that “the people are not yet, in general, sufficiently instructed to be able to take, with advantage, the effective part assigned them; and, in consequence, it is impossible to obtain from the Municipal Councils a prompt, regular, and effective co-operation.”

Such continued to be the unsatisfactory state of matters up to 1845, the year in which the first separate

* We have already observed, that we do not think the employment of female teachers, and the formation of separate girls' schools, sufficiently encouraged in Canada, and mentioned instances of this being more carefully attended to elsewhere. We may here add, that in the State of Ohio, the number of male and female teachers, as well as of boys and girls' schools, is nearly equal.

amended Bill for Lower Canada was passed, granting the impolitic option of voluntary subscriptions, instead of a uniform direct general assessment; and, accordingly, in forwarding his Report for that year, in 1846, Dr. Meilleur was compelled to avow, in the strongest terms, the melancholy fact, that up to that period the School Bill had either not worked at all, or had in most cases worked very badly—notwithstanding the constant courageous efforts made everywhere by the friends of education, and especially by the members of the clergy of every creed and origin, to further its operation: “and this, for two reasons; the one, the continued existence of the old obstacle, its connection with the Municipal Councils;” the other, that the law required a small contribution, either by voluntary subscription, or by assessment on their real property, equal to the sum allowed yearly by the Legislature; but that the word ‘TAX’ had unfortunately slipped into the law, and taken the place of that of contribution; and that those who had reasons—sometimes inexplicable enough—for opposing the measure, had seized upon that word as the signal of a general and irreparable ruin! and that suddenly, at their voice, the people were seen to rise in a body in certain counties where the leaders of the opposition were more influential and active, and, guided by their perfidious counsel, had allowed themselves for a moment to be dragged into opposition;”—to what!—a purely philanthropic law, made for the sole benefit of themselves and children. But, “that the inhabitants were at length beginning to comprehend better the true ends of the law, its utility, its importance, and the means of attaining its objects; and it might now be said, that notwithstanding the efforts of the opposition, and the defects of the law, wherever the inhabitants had been well advised, and the local authorities well disposed, and so acted with good faith, concord, harmony, and perseverance, in their proceedings, the execution of the law had been easy, and followed by results most satisfactory to all: from which it might be reasonably concluded, that if the opposition had every where left the people to their natural good sense, free to follow without constraint and hindrance their own inclination for the instruction of their children—free, at least, to follow the well-meant advice of their true friends, and, in particular, of their pastors,—at all times so zealous for the public welfare—the working of the law would have every where been immediate, uniform, and most advantageous to the rising generation.” But then, again, he was forced to confess, that “this gratifying success is still far from being what it would have been, without the efforts of the opposition; there are localities where it is partial only, others where it is yet a nullity. In these latter, the inhabitants, bowed beneath the weight of an undue influence, incline, as formerly, towards the poisoned source of prejudice, and abandon themselves to the most deceitful illusions, in spite of all the good counsels and good examples given them by their fellow-citizens and friends; all have

* It would appear that, independent of the want of education making these popular institutions inappreciable by the people of Lower Canada, a strong popular antipathy prevails against them, from the first attempt to introduce them having been made by “Ordinance” during the suspension of the constitution.

yet failed to make them sensible of the false position in which they are placed, by certain individuals more desirous of a momentary command over men whose *misfortune it is to be too confiding*, and more ambitious of acquiring the ephemeral reputation of a day, than of contributing, with a good grace, to the permanent happiness and welfare of nearly 200,000 children eager to divide the intellectual food! There are also localities, where the inhabitants, indifferent or apathetic, do nothing either to conform to the law, or directly to oppose it, flattering themselves that it will be repealed or modified, *so as to require nothing at their hands*; and thus sacrifice to doubtful hopes, to improbable results, the certain and durable advantages which might be unfailingly secured to their children, by the faithful execution of the existing school law."

In this conflicting and discouraging state of things, Dr. Meilleur was led to recommend, for consideration, various amendments in the law, the principal of which were, the entire separation of the School Act from that regulating the rural municipalities, and the making of it permanent; the placing of the carrying out of its provisions solely in the hands of local Commissioners, either elected by the inhabitants, or appointed by Government in default of none being elected; the repeal of that part of the law which exacts 1s. 3d. per month for each child actually attending school, and the exacting of it for every child of an age to attend school, *i. e.*, from 5 to 16; making the contribution by *assessment* on real property obligatory in all cases, except extreme poverty—in which case the Commissioners to have the power of exempting the inhabitants of indigent localities from paying the full amount; and the establishing of a Board of *Examiners* for the admission of teachers. In addition to which he adverted to several other objects, having a reference to public instruction, as, though of a less pressing nature, not the less important, or requiring the intervention of the Legislature, such as the establishment of county academies, the institution of normal and model schools, the necessity of uniformity in school books; the foundation of school libraries; the teaching of the elementary principles of agriculture in the principal schools in each county; and the promotion of a periodical Journal of education.

Leaving our readers at liberty to refer to Dr. Meilleur's Report for the explanatory details connected with these amendments, we deem it sufficient to observe, for the present, that though we may differ from Dr. Meilleur in some respects, as either stated in the immediately foregoing pages or in the former portion of our remarks, we cordially concur in most of them; and in none more than in the absolute necessity for the immediate establishment of efficient normal and model schools, such as have been lately set on foot in the Upper Province; and we regard as no less indispensable, and, in fact, as a natural sequence, the appointment of one or more Boards of Education, or Examiners, such as that instituted in the sister Province. To which might have been added, the appointment of well-qualified Superintendents to each county. But what will all these improvements amount to, if that all-important and invaluable instrument, the teacher, is destined to be left in that utterly degraded

position which he at present occupies, instead of being raised to the legitimate respectable status in society insisted upon in our former article? but which can only be accomplished by the unanimous applauding voice and liberal helping hand of a grateful people. And of this, unfortunately, the prospect in Lower Canada is still gloomy in the extreme; for on the re-ammended Bill being brought before Parliament in 1836, such was the discordant feeling on this vitally important and philanthropic subject, in spite of all the efforts of the liberal friends of education, civilization, and humanity, on both sides of the House, that comparatively little good was effected, except making the working of the bill independent of Municipal Councils, and the omission of the objectionable voluntary contributions; and the consequence was, that a third conflicting effort at amendment was proposed to be attempted during the last session of Parliament, reviving the optional voluntary contribution; but, so far, fortunately, that was destined to fall to the ground abortive in the House of Assembly. And thus, as far as the Legislature is concerned, to the disgrace of the country, stands the matter at present. In the meantime, however, it is somewhat consolatory to learn, from different quarters, as well as to perceive from the Superintendent's Report for 1836, that a better feeling is gradually gaining ground among the misguided "*habitans*," in spite of all the insane efforts of certain unworthy "extinguishers" in some remote parts of the country; and we are, therefore, led to indulge a confident hope that such will, after all, continue to be the case.† That our readers, however, may be enabled to judge for themselves of the plain unvarnished state of things at present, we beg to refer them to the following somewhat imperfect abstract view of the truly humiliating scale of education at present existing in both divisions of the Province, compared with what ought to be expected, when contrasted with what is witnessed in many other countries:—

Abstract Statistical View of the State of the Common Schools in the Province of Canada for the years 1844, 5, and 6.

Divisions.	Year.	Estimated Population.	No. of Children of School Age.	No. of Schools.	No. of Children Attend. School.
Upper Canada,	1844	506,052	181,062	2,945	96,756
	1845	632,070	198,434	...	110,002
	1846*	Unascertained.	204,580	2,925*	110,318
Lower Canada,	1844	690,782	186,349	1,832	61,030
	1845	Unascertained.	...	1,737	59,389
	1846	Do.	...	1,830	69,887

* This includes 336 schools unreported, at an average of 25 scholars to each.

† It is truly gratifying to find the conduct of these unprincipled men repudiated and stigmatised by every true friend of the country on both sides of the floor of the House of Assembly, as well as, with few exceptions, by the whole of the public press, of all shades of politics. As one late instance of which may be mentioned, that the *Minerva*, of the 31st December, characterised the opposition shown in that part of the Common School Act, as

Now, from the above well ascertained data, it would appear that in Upper Canada little more than half of the children between five and sixteen are now attending school; and that the proportion in Lower Canada is miserably less, being little more than one-fourth; whereas in several of the neighbouring American States—from whom, and not from Prussia, the greater part of our school system is derived*—almost every child is being more or less educated; and in more than one of them, education is literally universal.†

This is truly a melancholy comparison, which every Canadian, whether of British or French origin, may well blush to see recorded; but it exhibits, nevertheless, the

forcing taxation for the benefit of education, as a *DIABOLICAL doctrine*, not to be entertained by enlightened men; and declared that to advocate its repeal was *impossible* for any *respectable Canadian!*

* We should be doing an injustice to a very influential portion of the British Empire, were we not to remind our readers, that if they want an authority nearer home for a *tax* on property for the purposes of general education, they have only to look to the constitution of the Parochial Schools of *Scotland*; and if they wish to have the subject brought altogether home to Canada, let them reflect on the following excellent observations of the shrewd and talented member for Huron, during the debate on the Education Bill of 1846. Dr. Dunlop said that he did not expect to have it argued in the 19th century, whether or no the people should be taxed for the purpose of education. He thought that the advancement of the age had established that point. It was a duty incumbent upon that House to furnish the people with moral and religious education. Without this being done, it was of no use making canals and railroads. The country would not prosper if the people were not better than the oxen that worked in their fields. It had been said, "keep people in ignorance, and you can govern them; instruct them, and they will govern themselves." Now, he wanted to see them govern themselves. The less education the people possessed, the less they felt the want of it; and it was, therefore, the duty of that House to feel for them, and to tax them for their own benefit, in this particular. He was guilty of frequently referring to his own country, and was about to do so again: the people of Scotland might be found in every part of the world, but no where were they mere hewers of wood and drawers of water; and the reason was, *because the people were taxed for the maintenance of good schools in every parish, and the means of education were given to the poorest.* Scotland occupied but a small space in the *physical* world; but how great was the space it filled in the *moral* world. The larger countries, France, England, and Germany, might be equal to them in that respect, as they ought to be, considering the greater number of inhabitants. In a moral point of view, the literature of Scotland stood conspicuously forth to the world's eye. The educational system of Scotland had broken down the ancient monopoly of greatness, (rank), and opened the door of fame to every competitor: The small start which the *wealthy* farmer was able to give his son, was lost and of no account, when the son of the peasant was equally well educated with the son of the peer. He hoped to see a similar system introduced into this colony: *and it would be the greatest blessing ever conferred upon it.*

† Though it is the fashion to run down the enlightened, though arbitrary, Prussian system, we cannot resist adding, that so far back as 1831, out of a population in that country of 12,726,823, there was a proportion of 2,043,030 children between the ages of seven and fourteen; and that of these, 2,021,421 actually attended the public schools, leaving only 21,609 without education, if such were the case; but these, in fact, were supposed to be attending *private* schools;—so that it would appear that *every human being* in that kingdom actually enjoys the benefits of education! What a contrast, this to the mortifying scene exhibited at the late Quarter Session for the city and district of *Montreal*, the proud metropolis of *British* Canada, where ten out of eighteen grand jurors could only *make their mark!* and of these, nine were of French origin! If this does not show the necessity of providing instruction, we know not what will.

stern truth! Let us, however, not altogether despair, but look hopefully forward to better times, when in spite of all the heartless unchristian efforts of a few ignorant or designing political demagogues, the mists of prejudice shall gradually disperse, and the beneficial workings of our educational system shall become better understood and appreciated; for it was a number of years before even our neighbours of New York, after much vexatious opposition and evasion, began to comprehend the true merits and value of, and become thoroughly reconciled to direct school taxation, with the ample special fund for educational purposes provided by the State, as may be seen from the following:—

Abstract table of the progress of Common Schools in the State of New York.

Year.	No. of Schools.	No. of Children between 5 & 16.	No. of Children taught.
1815	2755	176,449	110,106
1820	6332	317,633	304,559
1830	9063	497,503	499,434
1843-4	10875	670,995	657,732*

To which may be added, that the amount of public money received and expended in the several school districts in 1844, was \$660,727.41, of which was applied to the payment of teachers wages, \$565,793.76, and to the purchase of books and for school libraries, \$94,933.97; and the amount paid by the inhabitants on rate or assessment bills for teachers wages, was \$509,376.97; making an aggregate amount of upwards of 1,000,000 of dollars applied to the payment of teachers wages!

Having at length, in a great measure, redeemed the pledge given by us at the outset of our desultory observations, we would now gladly come to a conclusion of this already too protracted article; but we trust that our readers will kindly bear with us a little longer on so vitally important a subject, at a peculiar crisis like the present, while we once more earnestly warn our fellow countrymen of both races against the baneful consequences that must result from the reckless, unreflecting desire of constant change, which has of late become so rife, and appears to be gaining ground in some parts of the Upper Province, and entreat that a fair and patient trial may be given to the existing educational system in all its parts, imperfect though it may be, before any attempt at material alteration is forced upon the Legislature; and we beg it to be recollected that such cannot possibly be the case until the influence of that powerful lever, the lately established Normal Schools, shall be brought into effective operation, and that that cannot be expected in less than three years. And we would in particular most earnestly deprecate all attempt to narrow the sphere of, and far less dispense with, the services of so invaluable a main-spring as an efficient Chief Superintendent for each province, without which the whole machinery must infallibly crumble to pieces. In fact, it may be recollected that our individual conviction goes to the very antipodes of such a feeling, it being our long and well weighed opinion that the head of the educational department should even be a member of the

* This is exclusive of the schools in the great city of New York.

Executive Government, with no other duties to attend to.* We would also invite the particular attention of the Municipal Councils of Upper Canada, as well as of Government, to the propriety of great discrimination in the selection of those important local officers,—well qualified *District Inspectors*, or *Superintendents*,—against whom also there existed at one time a considerable degree of prejudice†; but that, once appointed, they should be as little liable to removal as possible. And we would further suggest, that every District Superintendent should, after appointment, be required to pay a leisure visit to the Normal School, so that, by being a personal witness of the progress of the whole system, he may acquire a thorough insight into the proper mode of conducting the Model and Common Schools within his own jurisdiction. Add to which, we would suggest that he should be, ex-officio, a member of the District Grammar School Commission.

Thus much with regard to the Upper Province. With respect to Lower Canada much more might very readily be added; but we content ourselves with earnestly imploring the Government to persevere in the laudable endeavour to awaken our misguided French Canadian brethren to the value of education—as a jewel beyond price—by every legitimate legislative means; and we would more particularly impress upon the *Representatives of the people*, that education is a sacred cause, apart from all mere party or political feeling whatever; and that a law once passed in its behalf, however imperfect it may be, it is the duty of all, without exception, to give their best aid towards its successful operation, till a better can be devised; and we have every confidence that, if the powerful influence of the members among

their respective constituents be zealously added to the solemn persuasive voice of the ministers of religion, a reaction of the most cheering character must ere long be produced, not only in behalf of that first of blessings—education, but, as a natural consequence, in favour of municipal institutions also. In the meantime, till the worthy "*habitans*" shall become gradually reconciled to the latter, let the schoolmaster, at all events, be encouraged to come abroad among them, altogether unfettered by, and unconnected with, any other enactment; and to accomplish this, all that is at present necessary, is to leave the whole of the management of the local *elementary schools* in the hands of intelligent educated Commissioners, assisted by respectable school section trustees, &c.; and to appoint well-selected District Superintendents, to complete the chain of connexion between the different branches of the system; to realise the full intention of the theory of "the Royal Institution," by founding, wherever wanting, respectable *County Grammar Schools*, or *Classical Academies*, such as were intended and ought now to be in operation in the Upper Province; and to organize efficient Normal Schools, such as has been lately instituted at Toronto, to give a well-regulated uniform impetus to the whole! For what will all the schools in the world do without a body of truly respectable, well qualified, teachers to direct them?

Would that our humble, but fervently patriotic, appeal to our *united* Legislature could prevail on them to advance one great step farther, in behalf of "a consummation devoutly to be wished," in at once abandoning, wherever possible, the narrow-minded growing Parliamentary practice of legislating for the two divisions of the same great British Province separately, instead of as a harmonious unity—as if they were inhabited by races of utterly irreconcilable habits, feelings, and principles—to the undesirable and impolitic perpetuation of uncalled-for jealous, if not unfriendly, national feelings and prejudices; and no better beginning can be made than with municipal and educational arrangements, for the benefit of the whole. In the event, therefore, of any revision of the School Acts of either Province becoming ere long necessary, let our Legislature calmly retrace its steps, and frame whatever law may be brought forward, on an extended basis, similar to that of 1841, as applicable to the inhabitants of *both divisions*. But for such a movement to be productive of the noble results to be desired, let the course adopted be slow and sure, and, therefore, the very reverse of the annual tinkering practice which has hitherto prevailed; and none can possibly yield a greater prospect of success than the wary procedure recommended by the Hon. Mr. Morris in 1841, in the emphatic words of the following resolutions, then submitted by him to, and unavailingly adopted by, the Upper House:—

Resolved—That it is most important to the peace and welfare of the people of this Province, that an efficient and well organized system of general education be, without further loss of time, established upon just and liberal principles; by which all classes of Her Majesty's subjects shall enjoy equal advantages, and that the inhabitants of that part of the Province formerly called Upper Canada, be forthwith permitted to reap the benefits of that ample provision which was made by His Majesty King George the Third, for the education of his subjects in that part of the Province.

* It may be added, in proof of the conviction generally entertained in other countries, of the great utility of a general superintendent, that the most of the American States have such an officer; and that even at the late installation of the corporation of the city of Boston, the Mayor, in delivering the annual address, recommended an application to the Legislature for the appointment of a superintendent of schools, and also for aid in the establishment of school libraries, and even for a compulsory enactment for sending children to school. And it has been forcibly remarked by an able British writer, that "the first and most striking feature in the French and Prussian organization is the existence of a minister of public instruction, distinct from the other parts of the administration. The duties of this office belonged formerly, in both countries, to the Secretary of State for the Home Department: but a separation was made in Prussia by the law of 1819, and in France some time later; and the result has proved the wisdom of the arrangement. The entire machinery is thus worked from a common centre, which contributing the first impulse, controls all the movements, and gives unity of action and character. The prime mover of the whole is the responsible minister of the Crown; and in France he is one of the Cabinet ministers, and acts with the advice and assistance of a council of twelve."

† This unreasonable prejudice has not been altogether confined to Canada; for in 1843 the Hon. S. Young, *Secretary of State*, and Superintendent of Schools of the State of New York, candidly admitted that he had come into office with a decided prepossession against county superintendents, and determined to abolish them; but that after attending the Convention of County Superintendents, and possessing himself of a thorough acquaintance with the previous defects and present advantages of that system, he had arrived at the conclusion, that deputy superintendents, properly qualified for the discharge of their functions, and earnestly intent on elevating the condition of the Common Schools, can do much more to accomplish the desirable results than all the other officers connected with the system.

Resolved—That in order to secure the assistance of those best qualified to devise a wise, efficient, and comprehensive plan for the education of the people, it is important to appoint a Commission which shall fully represent the general interest of the community, with power to sit during the recess, and report through the Governor at the next Session of the Legislature, the result of their labours, and the draft of a law to establish and endow Common Schools and District Grammar Schools, as Seminaries preparatory to the education of pupils intended for Upper Canada Colleges, or for any University hereafter established.

Resolved—That a message be sent to the Legislative Assembly communicating the Resolutions of this House on the subject of the appointment of a Commissioner to prepare and report a system of general education, with a request that they will unite with this House in the necessary measures for that object.

Much more might still readily be added on so inexhaustible and important a subject as the spread of education among a whole people; but we have already trespassed so far beyond our limits, that we are constrained to bid our readers an abrupt farewell, in the humble hope that, as we have been unconscious of having either "nothing extenuated, or set down aught in malice," throughout the whole of our desultory observations, they may not prove altogether in vain; and thereby somewhat conduce "to hasten the great and good Reform, when *mind* shall reign." For, to borrow further the inspiring language of the great Lord Brougham, we feel that "the schoolmaster is abroad in the land; mind begins to assume his place; and ignorance, with her handmaid vice, must recede before her like darkness before the morning sun, or clouds before the wind!" Or, if more suited to the immediate scene of our theme, let us, in parting, bear in mind the emphatic patriotic words of a son of our own Canadian soil, the respected M. Mondelet, to whose Letters we have more than once had the pleasure of referring:—"The prosperity of our common country—the moral elevation of its people—the happiness of generations to come—will essentially be dependant on the degree of instruction which is diffused. Let, then, no consideration whatever prevent any man from openly advocating, supporting, and furthering the cause of education; it is a duty we owe to ourselves, our children, our posterity. Liberal institutions we need never expect to be able to appreciate and maintain unimpaired, if the people are not instructed. Temporary and unsettled educational establishments have been productive of such distressing evils in this Province, that there can scarcely be any difference of opinion as to the necessity of a permanent and fixed system being adopted, —a system such, that neither political strife nor accidents may obstruct its operation, and thereby deprive the rising generation of the benefits of education." L.

Montreal, February 15, 1848.

The Principles and Practice of Dental Surgery, by CHAPIN A. HARRIS, M.D., D.D.S., Professor of the Principles and Practice of Dental Surgery in the Baltimore College; Fellow of the American Society of Dental Surgeons; Member of the Medico-Chirurgical Faculty of Maryland, &c. &c. Third edition; revised, modified, and greatly enlarged. With one hundred and fifty-six illustrations. Philadelphia: Lindsay & Blackstone, 1848. Pp. 750.

In 1839 the first edition of the above work was offered to the public, but the great impetus that was then

being given to the profession by the exertions of a few liberal and devoted minds, in the institution of Colleges for the education of Dentists, and in the establishment of Societies and Journals, for the interchange of sentiment and diffusion of knowledge, so much increased the demand for the above treatise, that the author was induced, a little more than two years ago, to place before the profession the second edition of his work, considerably augmented. The additions that were then made consisted of those portions which now form Parts 1st, 2d, and 5th, with many other valuable acquisitions and improvements, that the advanced state of the dental science then made requisite. The acknowledged supremacy of Dr. Harris as a contributor to dental literature, had already created such a desire to obtain his writings, that, in a few months, he was again called upon to prepare his work for another edition, which is now before us.

The merits of this work, in its second edition particularly, have been so fully appreciated by both the medical and dental professions, that we deem it necessary to state little else than what the author has already done in his preface, viz., that he has introduced many practical details, illustrations, and improvements, not contained in either of the former editions. We shall, therefore, content ourselves with noticing a few points which particularly attract our attention. In the first place, it is impossible to read the work, without being struck with the originality and excellence of its arrangement. Dr. Westcott says, in speaking of the second edition, "We are well pleased also with the arrangement of subjects; principles are first stated and elucidated, thus making, what would otherwise be arbitrary rules of practice, deductions from clearly illustrated and well established laws of the human economy."

Part seventh is entirely new, and eighty-seven new engravings have also been introduced into the last edition, which have increased the volume by 150 pages; but this is by no means the extent of the improvements, for, to prevent increasing the work to an inconvenient size, the author has found it necessary to exclude from the present edition considerable matter contained in the preceding one which he conceived of minor importance.

Part first treats of the Anatomy and Physiology of the Mouth. The different anatomical elements and their functions are considered together, a plan admirably adapted to a work of this description, inasmuch as it renders this portion of the treatise more concise, and at the same time offers the subject matter to the mind of the student in a more natural, interesting, and instructive form. Each organ is neatly and distinctly repre-

sented by an appropriate cut, so that the student may obtain from this portion of the work, a correct knowledge of structure and function, which is indispensably necessary as a basis of dental education.

Part second comprehends the physical characteristics of the teeth, gums, salivary calculus, fluids of the mouth, lips, and tongue. A knowledge of their distinctive qualities, enables the dentist at once to determine upon the degree of susceptibility of the teeth to disease under the various circumstances which they will be placed by certain operations, so that he may decide what remedy can most safely be employed. An indiscriminate use of the file, for instance, would most certainly do more injury in some instances than good in others. We have seen teeth from whose lateral surfaces the enamel had been removed by the use of the file, for more than fourteen years, without the slightest change having taken place in the bony structure; and we have seen others that were entirely ruined by caries, in less than two years after the same operation had been performed upon them to the same extent. It is these unfortunate cases that have established the deep-rooted prejudices that so generally prevail against the use of the file. And it is useless to deny that these errors are always the result of ignorance, for the indications which should guide the operator in the choice of his remedies, mechanical or surgical, are present in every instance, and only need to be understood, to be employed successfully.

Parts third and fourth treat of the diseases of the teeth, gums, and alveolar processes, with their causes and treatment.

Part fifth includes the diseases of the maxillary sinuses, and their treatment.

This portion of the work appeals with great force to the notice of the medical, as well as the dental profession. There are few medical men, or dentists, of much experience, who have not at some time met with diseases of this cavity, and notwithstanding they are often of the most formidable and dangerous character that the practitioner is called upon to treat, they have received but comparatively little attention from pathological and therapeutical writers. Many of the diseases, however, to which this cavity is subject, yield readily to treatment if promptly and properly instituted during their incipient stages; but if neglected, or improperly treated, assume a new, and so aggravated a form, as to bid defiance to every effort to remove them. The form which the disease takes on, is determined, to a very great degree, by the constitutional or specific tendencies of the general system, so that simple inflammation and mucous engorgement, in young subjects of good constitutions, might be entirely overcome by the curative efforts of nature, or

might remain in a chronic state for years, without producing any very mischievous effects; while, on the other hand, in a less healthy constitution, the same affection might, in a few weeks, cause ulceration of the living membrane, death, and exfoliation of the surrounding bone. Dr. Harris has done himself great credit in his efforts to throw light on this hitherto neglected subject, and deserves equally the thanks of the general, as well as the dental surgeon.

Part sixth comprises the entire field of mechanical dentistry, with the exception of the construction of artificial palates and obturators. In this portion of the work are found those practical details and illustrations that are so indispensably necessary in a treatise on the dental art.

To construct any piece of dental mechanism properly, it is necessary to divide the work into a great many stages or steps, and each one particularly must be done in the most accurate manner, before the next is commenced, for neither can be altered afterward; and the success of the dental artist depends, not so much upon his knowledge of any one great principle, as of scores of little ways and means, no one of which, though seemingly unimportant in itself, can be omitted without marring the beauty or utility of the work. This accounts for the fact, that there are a great many excellent surgical operators, who, notwithstanding they may possess good mechanical geniuses, are nevertheless indifferent artificial workmen. To such men, as well as the student, a work so rich in practical detail as the one under consideration, must be of very great value; for there seems to be nothing omitted, from the melting, purifying, and alloying of the gold, to the placing of the work in the mouth.

Part the seventh treats of the diseases and defects of the palatine organs, with the most approved methods of remedying the same, both mechanically and surgically.

In every part of the volume we see evidences of great practical and theoretical knowledge, the result of many years of close application and experience; and the work is characterised by an originality of thought, and independence of opinion, equally calculated to elicit truth and expose error.

E.

Letter to the Right Hon. Earl Grey, one of Her Majesty's Most Honourable Privy Council, and Secretary of State for Colonial Affairs, Embracing a Statement of Facts in Relation to Emigration to Canada during the Summer of 1847, by the Hon. ADAM FERRIE, member of the Legislative Council, Chairman of the Executive Lay Commission for Emigration, Montreal, Pilot, Pp. 16.

The year 1847 will be a memorable one in the annals

of Canadian emigration, from the number of emigrants shipped from the mother country, the reckless manner in which they were sent out, and the consequent evils attendant on it—evils felt as much by the unfortunate emigrants themselves, as entailed upon the inhabitants of this Province in general, but more particularly experienced in the cities of Montreal and Quebec.

It would be reasonably expected that the philanthropic and benevolent spirit which excited the landlords of Great Britain to send out their surplus population to this country, in which means of subsistence are more easily procured, would have prompted to every necessary arrangement for the health, comfort, and sustenance of those thus sent out. But never was expectation so far from being realized. The fault was, however, less that of the landlords than of the owners and captains of vessels, whose avarice prompted to proceedings succeeded in turn by most distressing consequences.—The largest ships, in most cases, were crowded to excess, and only yielded to the slave ships in those disgusting details which distress the mind and thrill the feelings with horror. Disease, in its most revolting form, raged among the inmates of these floating charnel houses. The angel of death hovered over each cargo of living souls, and revelled in mortality. The deep swallowed up its share, and, after arrival, the progress of the remainder to the interior was marked by innumerable graves. Our means of information are still too scanty to permit us to estimate the actual mortality which took place among the one hundred thousand who left the British islands, in a state of comparative health, and certainly under circumstances, if the simplest precautions had been adopted, which would have maintained them in it; but we do not think ourselves far wrong in presuming that mortality to have been not much short of one-fifth of the whole number; and, as the disease under which they chiefly laboured was fever, in one of its worst forms, the mortality of which is rarely less than one to every ten cases attacked, but the rate of which, as witnessed last year, was much greater, we scarcely consider ourselves wrong in the assertion that not less than from 50,000 to 90,000 of these unfortunate creatures were stretched upon a bed of suffering during some period of their journey. This simple statement may give some idea of the extent to which disease existed among them, and the fearful mortality which thinned their ranks.

The Hon. Mr Ferrie, in the pamphlet before us, calls the attention of the nobleman at the head of colonial affairs to the circumstances in question and their causes, briefly alluding to the injurious consequences entailed upon the Province. Perfectly familiar from his long connection with the emigrant department of this Province, of which he has been for many years chairman, and certainly one of its most active, zealous, and indefatigable members, the author treats his subject well, although he might have made out a stronger case, were such needed. The attention of the Imperial and Provincial Governments are now earnestly directed to the question, and it is not too much to hope that measures will be speedily adopted to secure a more healthy immigration for the future.

Reports on the Solution of Chloride of Zinc, (Sir William Burnett's Disinfecting Fluid,) as an Agent for the Destruction of Deleterious Gases, or the Effluvia arising from the decomposition of Animal and Vegetable Substances, for Purifying the Wards of Hospitals or Sick Chambers, and for Preserving Anatomical Preparations. London; Printed for Her Majesty's Stationery Office, 1847.

In 1838, Sir William Burnett, M.D., first had the chloride of zinc extensively used for the preservation of canvass, cordage, and timber; and afterwards conceived the idea that it might have the effect of preventing or checking decomposition in other bodies; and the results answered his expectations. The publication before us states:—

"It is not intended to claim for the solution any direct influence over the more subtle elements of which the contagion of febrile and exanthematous diseases is supposed to consist, although it yet remains to be proved whether it has or has not some controlling power over these; were presumptive proof admissible, evidence is not wanting to warrant the conclusion, that it has at least a modifying influence. * * * It is, moreover, a consideration of no minor importance to know that the fluid being innocuous in itself, no evil consequences need be apprehended from its most abundant use—a quality not possessed by several other substances and fluids employed for disinfecting or purifying purposes."—Page 5.

Then follow a number of testimonials from surgeons, captains of ships, ship-wrights, and others, certifying to the fact, that the solution of the chloride of zinc destroys the disagreeable odour of bilge-water, and of the holds of ships. In the second part of the publication we have remarks on the uses of the fluid for anatomical purposes, and for preserving objects of natural history; it prevents, for a considerable time, decomposition; it arrests it when already begun, and it destroys any disagreeable odour arising from this incipient decomposition; the scalpel of the dissector is not blunted in consequence of its having been used either by injection or sponging; all these are great advantages, and are stated to result from using the fluid by Professor Sharply, Mr. Bowman, Mr. Pettigrew, and Mr. Partridge, anatomical teachers in London, and Sir James Murray, the Dublin Inspector of anatomy.

In the third part, are remarks on the action of the fluid on the offensive effluvia in hospital wards, sick chambers, &c. After noticing various objections, to the use of chlorine-gas, chloride of lime, and vinegar, it is observed that:—

"Considering the denied poisonous nature of several substances with metallic bases, the introduction of secret chemical compounds for purifying the wards of hospitals and the dwellings of the poor, cannot be too strongly repudiated, at least by medical men; yet a preparation of lead, one of the most obnoxious of the metals, as regards health, with which we are acquainted; but which possesses considerable destructive power, over certain mephitic gases, has been prepared for general use as a disinfectant. Whatever its properties may be in this respect, and it is assumed they are not great, there are few people acquainted with the danger of sleeping while in sound health in a newly painted room, that would consider the diffusion of the vapour of a solution of one of the salts of that metal in the wards of an hospital, anything but a very dangerous and unwarrantable procedure.

"As the vapour of the preparations of mercury when diffused in the atmosphere, will speedily produce the specific effects of

that mineral on those exposed to them; so it is submitted under every precaution will those of lead produce its specific effects, namely, obstinate colic, paralysis, and permanent decrepitude. The danger attending the application of the solutions of lead, mercury, and arsenic, to even superficial sores, is well known to every medical man; in an equal degree should the community be advised of the danger of these poisons when applied directly to the body, different in the foul atmosphere of an ill-ventilated house, in the wards of a crowded hospital, or between the densely-peopled decks of a ship."—Page 17.

We do not entirely coincide with the author of the report in the sweeping censure cast upon preparations of lead, especially of the soluble ones conveyed in this extract. While fully prepared to admit the deleterious agency exerted by the carbonate under the circumstances in question, we are not quite prepared to adopt the sweeping conclusion which the author arrives at. We admit that analogy furnishes a very strong argument in his favour; but the proof is but presumptive in favour of analogous results flowing from the use of the soluble salts of lead, and we apprehend that the profession generally would desire a direct proof before acquiescence in this verdict. Experiments on this subject are still a desideratum.

We have opinions regarding its efficacy in destroying the disagreeable and unhealthy odours of hospitals, from a number of medical men, and among others, from Sir John Richardson, M.D., (the Arctic traveller, and an Inspector of Naval Hospitals and Fleets, and who, by the way, will likely be in Montreal this month, on his overland journey in search of Sir John Franklin.)

In one hospital in Ireland, it is mentioned, by Dr. Lindsay, that the mortality became less after they began to use the chloride of zinc solution, and the same is also stated with regard to another hospital by Dr. Cronin.—(Page 21.)

We have received a specimen of Sir Wm. Burnett's fluid from Dr. Stratton, Royal Navy, (3, Ostell's buildings, Craig Street,) who will be happy to give some to any medical gentleman or others interested in the subject. We hope that Dr. Stratton will soon publish the results of his own extensive and varied trials of, and experiments with, the fluid.

The Journal of Education for Upper Canada. Vol. 1. No. 1. January, 1848. Pp. 32.

For the purpose of disseminating information relative to the important object of education, this monthly journal has been established. Its chief editor is Dr. Ryerson, the Superintendent in Canada West. The journal is a neatly printed octavo, and contains a variety of valuable information on the subject in question, addressed in an especial manner to the Upper Canadian population, but not the less useful and important out of that section of the Province. In superintending the important department of education in the sister Province, Dr. Ryerson moves in a sphere for which his talents eminently adapt him, and which will be reflected in this publication. The attempt to diffuse information in the way specified is praiseworthy, and we hope that an undertaking which promises to prove of such great utility, will be adequately sustained, for the sub-

ject appeals directly to the best feelings of every parent and philanthropist in the Province.

Agricultural Journal, and Transactions of the Lower Canada Agricultural Society. Vol. 1. Nos. 1 and 2. Montreal. 1848.

The two first numbers of this periodical have come to hand. It is published under the direction of the Lower Canada Agricultural Society, is to be issued monthly, each number containing 32 large octavo pages, filled with matter of a practical nature, and is eminently well calculated to promote the interests of the agricultural population of the Province. It is under able management, the editorials and selected matter both evincing a discriminating and sound judgment. Although the editor's name does not appear, we have no difficulty in detecting the style of our old friend Mr. Evans, whose writings on this subject have acquired for him an envied reputation. Judging from the appearance presented by the two numbers before us, we have no hesitation in predicting for the journal a long and prosperous career of usefulness.

PRACTICE OF MEDICINE AND PATHOLOGY.

On Neuralgia treated Endermically by Morphia, by Dr. GATTERE.—In a paper read before the Medical Society of Nant's, Dr. Gattere reports four cases of neuralgia, cured by the application of the acetate, or the muriate, or the sulphate of morphia to blistered surfaces. The first was a case of neuralgic pains of the breast, the mamma, and over the shoulder-blade, in a female of 62, left, as often happens, after an attack of shingles. Three blistered surfaces were produced, and about one-third of a grain of the acetate of morphia was added to the application used at each dressing. The cure was rapid, though many means of treatment had been before resorted to in vain. The second case is that of a female tormented with a very painful hemicranium. Three blistered surfaces were made on the forehead and temples, which were dressed eight times with muriate of morphia, the whole quantity used being between three and four grains of the salt. On the first dressing, the pain was at once relieved, returning again to be removed at the next dressing, and so finally was subdued. The only inconvenience was a momentary acute pain at each new application. The third case was that of a female, aged 50, suffering under a sciatica, against which, for a month, many common remedies had been employed. Blistered surfaces were made in the course of the pain, and dressed twice a day with about a sixth part of a grain of sulphate of morphia. Relief was obtained from the first, but was temporary, as the pain returned at the end of three hours, though less severe. The quantity of the sulphate was by degrees increased to two-thirds of a grain at each dressing, and the blistered surfaces were successively made downwards from the upper part of the thigh to the heel, where the pain at last had its principal seat. The treatment altogether extended to a month; at the end of which time the cure was complete. The application of the narcotic caused acute pain for ten or fifteen minutes, after which the neuralgic pain subsided. The fourth case was one of dental and facial neuralgia, which yielded to a like treatment.—*Braithwaite's Retrospect.*

Connection of Rheumatism with Chorea.—Mr. Peacock, of Darlington, records three cases of this complication, under the impression that he is advancing a novel observation. Without referring to the oft repeated connection of chorea with pericarditis, and of this latter disease again with rheumatism, which to our minds is much the same thing as noticing the immediate connection of chorea and rheumatism, we may remind him that the direct relationship of the two diseases has within the last few months been insisted upon by Dr. Begbie, (*Monthly Journal*, April, 1847.) Mr. Peacock's cases are as follows:—

The first case I have to mention is that of a girl, aged 12. When called in, the symptoms were simply those of febrile excitement, for which saline purgatives were given two days successively. On the third day there was decided chorea, with slight fever. I gave her a mixture, with Fowler's arsenical solution and Tinctura Opii, (three drops of the first and five of the latter for a dose,) every six hours. This she took regularly for two days; on the third day the chorea subsided, and well-marked rheumatic symptoms, swelling and pain of the joints, and increase of fever, came on. She had then Dover's powder in sudorific doses every four hours, with occasional purges. In a week from that time the pain had nearly left her, and she soon recovered without any relapse.

Case 2.—A girl, about nine years of age. On March, 7th, 1846, feverish symptoms, for which calomel purges and saline mixture, with Vin. Rhuim., were given. 8th ditto, 9th, every symptom of acute rheumatism. Dover's powder, with a mixture containing Vin. Colchici, to the 26th, when the rheumatism subsided, and chorea immediately supervened. For this, pills, with bismuth and an arsenical mixture, to the 8th of April, when the chorea began to abate. Quinine was then given to April 14th, when, the chorea having disappeared, the rheumatism in a subacute form again came on; the joints swollen and very painful, but not much fever. The quinine was continued, and Dover's powder, twice or three times a day, added to the treatment. This was pursued without change to May 13th, when palpitation of the heart, soon followed by œdema of the extremities, became the prominent symptom, for which diuretics in various forms were given, but without effect, and the case was eventually removed from under my observation apparently in a hopeless condition.

Case 3.—I did not see this at the commencement: the subject was a farmer's boy, aged 14. From the account which his friends gave, it appears he had had acute rheumatism about two months before; it had now passed into the chronic form; there was no fever, but great pain in the joints, especially the ankles which were not swollen; general debility, want of sleep, &c. A mixture with hydriodate of potash, and ten grains of Dover's powder at bed-time, gave immediate relief, and was continued for some weeks, when a very urgent message came for me to visit him; he was some miles distant, and I was unable to attend immediately. On my arrival I found the boy's friends and neighbours in great alarm, and perplexity about him, he having been, as they said, quite suddenly attacked in a most strange way, and, as it appeared to them, he was "going out of his head." On entering the house I found him in the most complete state of chorea I ever saw, both sides being apparently equally affected; he had an anxious and frightened expression, and gave short and confused answers. This, with the strange antics which the disease occasioned, had, no doubt, impressed the good people with the idea that he was deranged. I ordered him a pretty strong arsenical mixture every six hours, with a dose of calomel and opium at bed-time. On the following day I was glad to find the violence of the chorea had almost immediately subsided after the beginning with the medicine. The disease, however, continued obstinate, and had to be treated with arsenic and sometimes quinine for upwards of two months.—*Medical Times*, Nov. 27, 1847.

Cold Applications, with Opium and Quinine, in Acute Rheumatism.—In a case of acute rheumatism, complicated with nodes on the shins, and syphilis, an ineffectual attempt to obtain the specific effects of mercury had been made in the commencement of the case. When in health the patient weighed 220 pounds. He had been confined to bed four months, and when admitted was unable to bend the knee, wrist, elbow, or finger-joints, without great pain. Cold water dressings were kept constantly applied to the painful joints, half diet was allowed, and he took at bed-time, every night, two pills, composed of four grains of opium, and four grains of sulphate of quinine. On the tenth day of treatment he left his bed. His weight was 136 pounds. At the expiration of twenty days the pain had disappeared: the quinine and opium were discontinued. There still remained thickening and stiffness about the joints. For this condition phosphoric acid in syrup of Prunus Virginiana was prescribed, as follows:—R. Sol. Acid. Phosphorici, dr. ij.; Syrup. Pruni Virg., q. s. ut. ft. oz. viij. M. Cap. oz. ss. in Aq. Font. oz. iv., quarta quaq. hora. Under this treatment the functions of the

joints were perfectly restored, and the patient gained twenty pounds in weight in thirty days, and the nodes disappeared.

While taking the quinine and opium, the bowels, which had been previously constipated, were regularly removed once in twenty-four hours; but under the use of phosphoric acid, it was found necessary to occasionally prescribe castor oil and anodyne at night.

Dr. Ruschenberger, of the U. S. Navy, who reports the case, has been in the habit of treating acute rheumatism, upwards of two years, by cold applications to the hot and swollen joints, and administering at night from three to six grains of opium, with an equal quantity of sulphate of quinine, regulating the quantity by the condition of the pupil alone. With a dilated pupil, he found patients to bear the largest dose without inconvenience, and he has not yet met a single case in which pain was not completely removed in from twenty-four to thirty-six hours, provided the attack were recent, or not more than a week's duration. Large doses of opium, especially in combination with sulphate of quinine, do not tend to constipate, but rather to relax the bowels. After the pain is removed by the opium, he then resorts to the use of the iodide of potassium, in medium doses, say from five, increased gradually to ten grains, three or four times daily.

Passed Assistant-Surgeon S. Holmes, who witnessed the result of this practice in his hands, has made trial of it on the coast of Africa, and with entire satisfaction.—*Amer. Jour. Med. Science.*

Remedies for Incontinence of Urine.—I. Benzoic acid has been employed with success against this complaint; it is given in doses of twelve grains daily, half in the morning and half in the evening, and this dose may even be doubled. M. de Fraene, of Brussels, records a successful case in a girl between 13 and 14 years of age, who was attacked with nocturnal incontinence, after recovering from a second attack of acute rheumatism. The complaint was neglected for several months; there was no pain in that part, the appetite was good, and the bowels regular, but the face was pale. Various remedies were employed without success, after which, two drachms of benzoic acid were made into forty pills, four of which were taken night and morning, and the complaint was completely cured.

2. A woman, aged about forty years, was received into the Hotel-Dieu, under M. Guerdar, to be treated for incontinence of urine and pulmonary emphysema. The first infirmity appeared to depend upon a phlogosis of the neck of the bladder. The urine passed involuntarily both night and day. The asthma was treated with acetate of ammonia. The emphysema was much ameliorated, the respiration became more easy, and the asthmatic attacks after a few days ceased. The incontinence of urine, however, continued, for which enemata were ordered, containing four grains of camphor dissolved in yolk of egg, and mixed in a little water, so that it might be retained in the rectum. This treatment alone sufficed to remove the incontinence for some time. In a few weeks, however, it returned, and was once more moved in the same manner. At present the enemata are continued as a prophylactic, the cure seems to be permanent.—*Med. and Surg. Journal.*

Rapid Mode of Producing Vesication.—Apply six drops of a mixture of one drachm of liq. ammoniæ fortissimæ, and two drachms of olive oil, to the woollen side of Markwick's spongopiline, and press this gently against the skin. In the course of ten minutes a perfect blister is formed.—*Pharm. Journ.*, Feb. 1847.

Singular Case of Cutaneous Disease.—By JOHN BARCLAY, M.D., Leicester.—Sarah Anne Moss, aged two years and three months, a very intelligent child, of poor parents, was first brought to me on the 27th of last September, in a state of extreme emaciation, suffering from profuse diarrhœa, the stools occasionally containing blood and pus, with eczema, and to a distressing extent. I prescribed warm baths; the Decoctum Cetrariæ, ad libitum; small doses of Hydiarg. cum Creta, and Pulv. Cretæ Comp., night and morning; with a diet of strong animal broths and jellies.

On the 5th of October, the eczema was much less intense, the diarrhœa continuing. I now prescribed quinine and sulphuric acid, with tincture of kino, and a drop of laudanum

three times a day; and sinapisms to the abdomen, with the same diet, &c.

On the 8th, the child was decidedly better, and had become so cross as hardly to suffer me to enter the house. The stools were much more natural, and fewer in number; while the eczema ani had quite disappeared.

On the 14th and 17th, I found her steadily improving, with a good appetite, and healthy evacuations.

On the 19th, she appeared to droop a little, having been doing well till then, contrary to the expectations of her parents.

On the 20th, I found her worse, and was informed that on the afternoon of the previous day, a small red spot, about the size of a sixpence, had appeared under her chin, and had rapidly spread until it assumed the formidable appearance it now presented. There was no swelling nor hardness, the redness being well defined, and terminating abruptly in the healthy skin. It was quite continuous, and extended over the fore part of the neck, the chin, and the lower part of both cheeks. The cuticle was entirely separated from the cutis, and the serum distended it at the dependent portions. When the cuticle was removed there was a copious clear discharge from a red and angry surface. It looked precisely as if a kettle of boiling water had been poured over it, or a large blister had been applied to the part. The child lay on her back, dreading motion, with the extremities cold, and would take nothing but milk, which I allowed plentifully, and directed finely-powdered starch to be dusted on the neck.

On the 21st, I found matters worse, the disease spreading over the neck, and continuing to present the same appearances. There was a red spot on the nose, and also on one of her fingers; the stools had again become unnatural and slimy. I directed a little port wine to be given, and as much milk as she chose to drink.

On the 22nd, it had spread all over the upper part of the back, and over the left scapula, where there were a few blackish spots like gangrene, and the stench was very unpleasant. The redness appeared to extend in the first instance, serum being then uniformly and rapidly effused under the cuticle. There was no heat nor swelling of the affected parts; the bowels were more natural.

She continued perfectly conscious to the last, and her death, on the 23rd, was hailed by her parents as a deliverance from suffering. The emaciation was extreme, and the body looked exactly as if the child had been dipped in scalding water, the cuticle being entirely separated from the nape of the neck to the nates. The appearances and smell which I had thought to indicate gangrene, were, contrary to my expectations, gone.

I felt extremely at a loss what diagnosis to make of this disease. To erysipelas it bore no resemblance, particularly in that the entire part affected continued discharging serum to the last. And I may add, that two practitioners, of extensive experience, to whom I showed the case, were equally unable to assist me in forming an opinion.—*Prov. Med. Gazette.*

SURGERY.

Ricord's Operation for Phimosis.—His method is as follows:—The penis is allowed to remain in its natural position, and no traction is used: a circular mark is made with ink upon the prepuce, about two lines anterior to the base of the glans, and parallel to the corona: a long and strong needle, its point covered with a wax head, is then introduced between the glans and prepuce, and made to pierce the whole thickness of the latter, on the mesial line, and a little in front of the circular mark. The mucous membrane

and skin of the prepuce are thus fixed, and the needle is allowed to remain. Behind it, and in a longitudinal direction, a fenestrated forceps, with notched edges, is then firmly applied. The fenestræ of the instrument correspond to the circular mark and the glans; at this stage of the operation the latter is to be pushed backwards. The next step is to pass sutures, five or six in number, through the fenestræ; and when all the threads are applied, the prepuce is shaved off with a bistoury made to glide between the needle and forceps. The latter is then withdrawn carefully, so as not to disturb the ligatures. The assistant should be desired to press the forceps very tightly when the prepuce is being shaved off; if this be neglected, the prepuce will yield, and the sutures will be cut. When the forceps is removed, the arteries which are noticed to bleed, should be tied or subjected to torsion; the threads which pass above and below the glans are then divided in their centre, and the respective ends of each half resulting from this section are tied, to bring the mucous membrane in contact with the skin. Of course there will be twice as many sutures as there were threads passed.

Treatment.—We should, after this operation, enforce rest, low diet, aspersions of cold water, and camphorated pills; union by first intention rarely takes place completely. The submucous cellular tissue will generally be found infiltrated with serosity on the next day, but it is gradually re-absorbed. The sutures ought to be removed on the fourth day; they might, if left longer, lacerate the tissues. The parts are usually healed up by the tenth or fifteenth day, excepting in those cases where the union by first intention takes place as early as the fourth or fifth.—*Lancet*, Nov. 27, 1847.

New Method of Reducing Hernia of Iris.—This consists simply in cauterizing a spot, at a distance from the hernia, with nitrate of silver; it is based on the following data:—
1. Hernia of the iris through the cornea does not become disorganized for some days. 2. The protruded iris, irritated by the contact of the tears or the air, or by the friction of the superior eyelid, or even the edges of the ulcerated cornea in which it is imprisoned, has a tendency to swell, and the irritation and swelling prevent mortification and arrest cicatrization. The progressive engagements of the iris is proved by observation; if a recent hernia be touched with an irritating body, it instantly acquires three times its original size; and if we watch the progress of cicatrization in the ulcer of the cornea, the hernia being unreduced, the pupil is found to diminish by degrees, and even to disappear. Adhesions are established between the iris and the cornea before the iris is disorganized; for a few days these are very weak and may be destroyed at once by augmenting the vascular action of the parts which furnish them, or by a new inflammation developing itself in another part of the eye. 4. The materials of adhesion are in the first instance furnished by the cornea; the cornea is in a morbid state at the point at which the healthy iris protrudes. 5. These materials are derived from the divided vessels of the ulcer, the origin or base of these vessels being at the circumference of the cornea. 6. By irritating the part in which the base of these vessels ramify, the secretion at the edges of the ulceration is augmented; in this way a fluid secretion may be induced around the hernia, which will destroy the imperfect adhesions, and give freedom to the iris in the ulcer, which latter is augmented in size by the secretion. 7. By putting the iris under the influence of belladonna before producing such an irritation mechanically, we obtain a power, placed behind the cornea, acting from before in a direction backwards, and capable of reducing the hernia.

After this beautiful chain of pathological reasoning, Desmarres states:—A portion of the iris having projected through an ulcer of the cornea, and instillations of belladonna

na having been used for some days without any beneficial result, it may be inferred that the pupil has been rendered as large as possible by this agent, the operator proceeds thus :

The upper eyelid being held by an assistant, and the lower eyelid depressed with the index finger of the left hand, he applies with the right hand the point of a pencil of nitrate of silver to the conjunctiva of the bulb, close to the cornea, and cauterizes it in three or four points as energetically as possible, without penetrating the mucous membrane too deeply. A very active irritation of the vessels which feed the ulceration of the cornea is thus provoked, and the secretion necessary to set the iris free is the result. Sometimes, instead of points, a line of cauterization is made in the neighbourhood of the hernia, and in some instances, where the first cauterization has failed, after an interval of two or three days, a second, third, or fourth even, on the cornea, but taking the greatest care that the caustic does not extend to the iris, otherwise the hernia would at once be increased. In a rare instance success was not obtained until after the 8th application ; but the reduction is generally effected after the first, second, or third. Desmarres has succeeded in so many instances by this method, that he has ceased to count the operations.—*Mr. Ansell's Report on Ophthalmic Surgery, Half-Yearly Abstract, Vol. VI.*

Treatment of Ununited Fractures—Mr. Rynd, after alluding to the practices invariably adopted in the above cases, such as friction of the ununited fragments, cutting down and removing the extremities of the bones, and passing a seton between them, as recommended by Dr. Physick, of New-York, suggests a modification of the latter, as exhibited in the following cases :—

1. Eliza Kavanagh, had fracture of both bones of the leg five inches above the ankle joint. Splints applied, but bony union not obtained. After eleven weeks, Mr. Rynd introduced a seton in the following manner :—A curved needle was passed into the inside of the leg opposite the fracture, through the integuments, so deeply as nearly to touch the posterior internal edge of the tibia ; it was then directed in a semicircular course anteriorly, over and close to the permanent extremities of the fractured bones, and was brought out on the outside of the limb, so that the fracture lay between the parts of its entrance and exit ; it did not touch or pass between the fractured extremities. Perfect rest was enjoined, and on the 21st day union was established.

2. John Reilly, aged 30, had ununited fracture of the left humerus, immediately above the condyles ; fragments moveable, and produce pain by pressure on the brachial nerves, when the cervix is raised. On the 10th a seton was introduced with the same precaution as in the former case. The arm was released from the splints somewhat too soon, but the union was ultimately perfect.

3. William Archer, aged 13, had oblique fracture of the femur fifteen months since ; motion perfect between the fragments, but no grating, shewing that there is ligamentous union. The boy is of a scrofulous habit. On the 14th, a seton was introduced posteriorly to the bones, and brought out in front. Dessault's apparatus was applied, and perfect rest enjoined. The seton was removed on the 28th. In a month's time the fractured portion appeared to be firm, and in another week the boy walked without a crutch.—*Dublin Quarterly Journal, 1847.*

New Method of Applying Ligatures to Tumours.—Professor Ferguson and Mr. Walne have both described this method. It consists in passing a double ligature through the base of the tumour and then dividing it ; a needle with the eye to the point is then threaded with one tail of the ligature, and passed also through the base of the tumour at right

angles to the double thread ; this tail is withdrawn from the needle, and the eye threaded with the other tail of the double ligature ; the needle is then drawn backwards, bringing with it the second ligature, which then passes at right angles to the original double ligature, and through the same channel as the first tail. The end of the ligatures having been left long enough for tying, there are now two ligatures, forming two figures of 8, each embracing two opposite segments of the tumour, and the surgeon has only to tie the ends of each ligature once, in order to command the base of the tumour.—*Medical Gazette.*

MIDWIFERY.

Lesions of the Nervous System, in the Puerperal State, connected with Albuminuria.—Dr. Simpson has related some cases illustrative of the effects of Bright's disease, as denoted by the appearance of albumen in the urine under the action of heat and nitric acid. He draws the following conclusions :—

1. Albuminuria, when present during the last periods of pregnancy and labour, denotes a great and marked tendency to puerperal convulsions.

2. Albuminuria, in the pregnant and puerperal state, sometimes give rise to other and more anomalous derangement of the nervous system, without proceeding to convulsions, and Dr. Simpson has especially observed states of local paralysis and neuralgia in the extremities, functional lesions of sight (amaurosis, &c.) and hearing, hemiplegia and paraplegia more or less fully developed.

3. Œdema of the face and hands, going on occasionally to general anasarca, is one of the most frequent results of albuminuria in the pregnant female.

4. The presence of this œdema, or of any of the lesions of the nervous system, with or without the œdema, should always make us suspect albuminuria ; and if our suspicions are verified by the state of the urine, we should diligently guard, by antiphlogistic means, &c., against the supervention of puerperal convulsions.

5. Albuminuria and its effects are far more common in first than in later labours, and these constitute a disease which in general disappears entirely after delivery ; but Dr. Simpson has seen one case commencing with slight blindness, but no œdema, and ending gradually in hemiplegia, where the palsy partially remained after delivery, and after the disappearance of the albuminuria. In another patient amaurosis came on with delivery, and had been present for six months when Dr. Simpson first saw her. There was no œdema or other symptom of albuminuria except the amaurosis ; but, on testing the urine, it was highly albuminous.

6. Albuminuria, with convulsions, &c., occurring in any labour later than the first, generally results from fixed granular disease of the kidney, and does not disappear after delivery.

7. In puerperal convulsions, &c., produced by albuminuria, the immediate pathological cause of the nervous lesion is perhaps some unascertained but poisoned state of the blood. Is there a morbid quantity of urea in the blood ? In several specimens of the blood of patients suffering under severe puerperal convulsions, furnished by Dr. Simpson to Dr. Christison and Dr. Douglas Maclagan, these gentlemen had been unable to detect any traces of urea. Is the poisoning material caseine in morbid quantity or quality ? The dependence shown by Gluge and others of albuminuria upon steatorrhoea of the kidney, makes this connection worthy, perhaps, of some inquiry.

8. In cases of severe puerperal convulsions, &c., from albuminuria, the renal secretion is in general greatly diminished, and Dr. Simpson has found active diuretics apparently of great use along with or after venesection, antimony, &c.,

especially where the case was offering to become prolonged.

9. Sometimes hemiplegia supervenes during pregnancy without albuminuria, but this form does not seem to interfere materially, or very dangerously, either with the pregnancy or labour—the disease running in its own usual course. In one case Dr. Simpson has seen the patient gradually but imperfectly recover the use of the palsied arm after delivery. In another no improvement occurred.—*Transact. of Edin. Obstetric Society.*

Puerperal Convulsions connected with Inflammation of the Kidney.—Dr. Simpson has pointed out the connection of puerperal convulsions with derangement of the kidney, as a very striking fact in obstetric pathology. He has seen *post-mortem* appearances of nephritis in some fatal cases of convulsions.

CASE I.—In this case, the patient, a delicate female, was exhausted by the pains of labour, and complaining of severe headache when the convulsions supervened. Dr. Niven promptly and easily delivered the child, which was dead, by turning. The convulsions gradually subsided, but re-appeared several times. In the intervals she was profoundly comatose; and, in this state she died about forty hours after the first attack. *Post-Mortem* appearances.—When the lateral ventricle of the right side was opened, fluid blood escaped. The corpus striatum and outer part of the optic thalamus were broken up, and mixed with a large quantity of coagulated blood, forming a clot of large size. The fluid blood was found in the opposite lateral ventricle, and also in the third and fourth ventricles. The right kidney was converted into numerous cysts, of about the size of a walnut, containing unhealthy pus, which passed along the ureter and filled the bladder. The left kidney exhibited an advanced stage of Bright's disease.

CASE II.—Dr. Simpson lately saw, with Dr. Carnichæ, a lady, who had so perfectly recovered after a labour which was quite natural, as to have been out at church, &c. Seven weeks, however, after delivery, after some sudden anomalous affections of sight and hearing for thirty or forty hours previously, she was seized with the most severe convulsions. Despite free evacuations, &c., they continued to recur from time to time, and proved fatal in three hours; the patient during that time never being perfectly sensible. The pelvis of each kidney was filled with a whitish purulent-like matter, and its mucous lining membrane coated with large patches of adherent coagulable lymph, or false membrane. The ventricles of the brain were distended with serous fluid. The urine, when tested, presented no sign of albumen.

CASE III.—In a third case, one fit of convulsions came on a month before delivery, and recurred again in a severe and fatal form fourteen days after confinement. During the intervening six weeks the patient was free from any symptoms, and the labour was natural. The last attack came on suddenly in the evening, about nine o'clock; the convulsions were again and again repeated, and she died comatose in eight hours. Dr. MacLagan, Dr. Handyside, and Dr. Simpson, examined the urine during this last attack, but found in it no traces of albumen. On inspecting the body, some whitish turbid fluid was found in the renal pelvis, and could be pressed out abundantly from the renal papillæ. It looked like pus. On microscopic examination, it seemed to contain merely a very large quantity of epithelial cells, and no pus-globules. Was this inflammatory? There was no effused fibrine or coagulable lymph.—*Prov. Med. and Surg. Journal.*

On Retroflexion of the Uterus. From a paper read before the Medical Society of King's College, London, November 18, 1847. By FREDERICK JOHN HENSLEY, M.B., Lond., Vice-President of the Society.—The diseases of the uterus

have been hitherto much neglected by the profession, and are in general but little studied by the student of medicine in this country, and consequently, the profession, as a body, are to a great extent ignorant of their diagnosis and treatment; yet, without a knowledge of uterine disease, both functional and organic, it is impossible satisfactorily to treat the numerous disorders to which the female sex is liable.

Till within the last few years very little was known of the displacement of the womb, denominated *retroflexion*. We find in authors very vague notices of it, as a pure and interesting affection. Dr. Denman is the first author who speaks of it in his treatise on Midwifery and Diseases of Women, more particularly describing retroversion of the uterus, as it occurs in the pregnant state, which is a perfectly distinct affection from that under consideration. He says, "The retroversion of the uterus has generally occurred about the third month of pregnancy, and sometimes after delivery; it may likewise happen when the uterus is from any cause enlarged to the size it acquires about the third month of pregnancy, but not with such facility as in the pregnant state, because the enlargement is then chiefly at the fundus. If the uterus is but little enlarged, or if it is enlarged beyond a certain size, it cannot well be retroverted; for in the first case, should the cause of a retroversion exist, the weight at the fundus would be wanting to produce it, and in the latter the uterus would be raised above the projection of the sacrum, supported by the same. Another complaint similar to that which we have been describing, and which has been called a *retroflexion*, has occurred in practice. By this term is implied such an alteration in the position of the parts of the uterus, that the fundus is turned downwards and backwards between the rectum and vagina, whilst the os uteri remains in its natural situation, an alteration which can only be produced by the curvature or bending of the uterus in the middle, and in one particular state—i. e., before it is properly contracted after delivery. A retention of urine existing at the time of delivery, and continuing unrelieved afterwards, was the cause of the retroflexion in the single case of that kind of which I have been informed by Dr. Thomas Cooper, and symptoms were like those occasioned by the retroversion. When the urine was drawn off by the catheter, which was introduced without difficulty, the fundus of the uterus was easily replaced by raising it above the projection of the sacrum, in the manner advised in the retroversion, and it occasioned no further trouble."

The following historical notice was published by Madame Boivin, in her "Traité Pratique des Maladies de l'Uterus et de ses Annexes." "Dr. Denman's case was nearly forgotten, when an observation, forwarded by Madame Boivin to M. Ameline, and published by that gentleman in his thesis on 'Anterersion,' fixed the attention of practitioners of midwifery; since that time incurvations of the unimpregnated uterus have been often recognised, and rationally treated. We here purposely make use of the epithet unimpregnated, to distinguish deflexions of the uterus in that state from an inclination of the same organ during advanced pregnancy, which was known before. Baudelocque had correctly observed, that in certain obliquities of the uterus, the neck deviated from the natural axis of the entire organ, in the same direction as the fundus. The same fact has been observed by Madame Lachapelle, Velpeau, and others."

Dr. Moreau, of Paris, is the only observer who notices the fact of retroflexion occurring more frequently in the unimpregnated state, than during pregnancy. Prof. Tiedemann, of Hiedelberg, published, in 1840, some researches on what he designated the *congenital obliquity of the uterus*, an obliquity depending on an inequality of the broad ligaments by which its fundus is bound down to one side of the pelvis.

Seeing this displacement was but little known, we shall not wonder when we find the records of its detection after death to be few.

Saxtorph in his "Animadversiones de correctione Uteri et Fœtus, in partu," says, "In a body which I opened some time ago, in the presence of the first medical men of this place, I found a virgin uterus, the fundus of which, as a congenital formation, was completely bent backwards, and which if it had even been impregnated, would, on account of its faulty structure, have probably been unequally distended, and have become oblique." Dr. Rigby observes, in reference to this quotation, "The fact is interesting, but the inference about the obliquity of the uterus is wrong, the old theory on this subject, promulgated by Deventer at the beginning of the last century, having been long since proved to be incorrect."

Jahn, a German physician, in examining the body of a girl aged 14, in whom the hymen was uninjured, found the uterus bent to the right side, in the shape of a retort; the cervix uteri, which rose straight from the vagina, took a sharp turn to the right, so that the obliquely-formed fundus lay in the upper and right part of the pelvic cavity; at the point where the curvature took place, the os uteri internum, viz., the upper part of the canal of the cervix uteri, was so contracted that it would not even admit the finest probe. The os uteri externum was of the natural shape, and formed a transverse fissure.

Schreger gives the case of a young woman, aged 20, who died of consumption, and in whom the uterus was found retroflected, the fundus being turned back to the hollow of the sacrum, and to the right. The direction of the urethra was natural, and the patient had never complained of any difficulty in passing her water; she had also menstruated regularly up to the last stage of her illness.

Dr. Simpson, of Edinburgh, has for some years been carrying on his researches on this subject.* In 1844, Dr. Protheroe Smith first made out the existence of this displacement in a patient at the Hospital for Women; and since that time, both Dr. Protheroe Smith and Dr. Rigby have met with numerous cases in practice, and have proved that the disease is of far more frequent occurrence than is generally supposed, and much more frequent in the unimpregnated state, than retroversion in the pregnant.

How is it then, we may inquire, that a disease so frequent in occurrence, and so important in its consequences, has been so long overlooked and not recognised? It arises from the defective means of diagnosis. Even in 1836, Dr. Davis, in his elaborate work on "Obstetric Medicine," very truly asks in reference to the diagnosis of deflexion of the uterus:—

"Does the supposed palpable doubling of the angle of flexion by the finger furnish sufficient evidence to the practitioner of the continuousness and identity of the tissues forming its two sides? If not, it should of course follow that the tumour, supposed to be the fundus of the deflected uterus, might really prove to be of morbid growth, either from the body of that viscus itself, or from any other part or organ in the neighbourhood. Hence the diagnosis of these deflexions, when of long standing, and become actually chronic in their essential character, must always, in the author's apprehension, present a subject of considerable doubt and difficulty." Dr. Davis having no other means of diagnosis, it is no wonder that he should arrive at the very erroneous conclusion that retroflexion of the uterus was a very rare occurrence. Dr. Simpson, in introducing his instrument (the uterine sound,) laid down the four following propositions, the truth of which is so obvious, that I deem it unnecessary to enter into further proofs respecting them.

"1. The general and local functional symptoms of disease of the uterus are such as enable us to localize, without enabling us to specialize, the exact existing affection of the organ.

"2. In almost all instances of diseases of the uterus, it is only by the physical examination of the organ itself, that we can distinguish the precise nature of the existing affection, and fix its character, extent, &c.

"3. The physical examination as formerly practised seldom enables us to ascertain accurately the organic condition of more than the cervix and lower part of the body of the uterus.

"4. It is possible, by the use of a rod or bougie, introduced into the uterine cavity, to ascertain the exact position and direction of the body and fundus of the organ, to bring these higher parts of the uterus in most instances within the reach of tactile examination, and ascertain various important circumstances regarding the os, cavity, lining membrane, and wall of the uterus."

The bougie proposed by Professor Simpson, and called by him the *Uterine Sound*, is an instrument provided with a flat handle, having one surface roughened,—that corresponding to the concavity of the instrument. Its shaft is about nine inches long, and terminated by a roundish bulb, about one-eighth of an inch in diameter; the shaft is composed of flexible metal, to enable us to alter its curvatures, it gradually tapers in its thickest part; it is about one-fifth of an inch in diameter, corresponding in size to No. 8 silver catheter; in its thinnest about one-tenth of an inch, in size, corresponding to No. 3 catheter. This instrument is graduated and marked at two and a half inches from the bulb, by a projection on the convex surface of the curve, to enable the finger to judge of its having passed to its full extent. The natural length of the cavity of the uterus is two and a half inches, and it forms a slight curvature forwards and upwards. The sound is passed with greater ease than the catheter, and produces less uneasiness than that instrument, certainly much less than the passage of a catheter in the male subject. The mode of passing it is as follows:—The patient is placed on the left side, with the knees drawn up; the forefinger of the left hand is then introduced to find the os uteri; having done so, the sound is passed, held lightly between the finger and thumb of the right hand, along the forefinger, and guided by it, is insinuated into the os, and gradually and gently pushed along the cervix into the cavity of the uterus; in some cases the canal of the cervix or the os internum is so small as not to allow it to pass, it must then be first dilated.

The application of the uterine sound has opened a new era in the history of the uterine diseases; by its means, cases before imagined to be malignant affections of the os and cervix uteri have been proved to be nothing more than extreme congestion, produced by retroflexion of the fundus, long standing affections pronounced by eminent men to be incurable; fibrous tumours have been demonstrated to be retroflexions, and removed by restoring the fundus to its natural situation; whilst other tumours, of whose connections it was difficult if not impossible to be certain, have been shown to be ovarian and unconnected with the uterus. But time will not permit me to enter into the numerous applications and uses of the uterine sound.

We must now proceed to inquire what are the symptoms produced by this displacement, and the causes which lead to it?

In some cases no appreciable symptoms are produced, except, perhaps, a greater flow of the menses, and a greater tendency to abortion in the married female, whilst in others the symptoms are exceedingly distressing and complicated. It is in most cases difficult to trace the first origin of the affection, but in some instances in which diligent inquiry has succeeded in doing so, the patient would appear to have been cognizant of some depression or falling down of the body of the womb, sometimes occurring suddenly, in other instances more gradually progressing, in the former producing alarming sympathetic affections, as nausea and vomiting.

* Dr. Rigby has also published some papers on this subject in the 13th Vol. of the *Medical Times*.

and actual syncope, together with more or less pain referred to the groin or sacrum. The retroflexion increasing or becoming permanent, produces some pain and difficulty, or frequency in micturition, though it never leads mechanically to retention of urine. The patient complains likewise of a dull, aching, constant pain in the sacral region, probably arising from the pressure of the fundus on the sacral nerves; since it is often immediately removed on raising the fundus; the pain often shoots down one of the thighs, there is also a sense of weight and bearing down towards the rectum, much increased by the act of defecation. Advice not being sought at this period, or the displacement being overlooked, other more serious symptoms manifest themselves; menstruation becomes highly painful, the discharge is generally increased in quantity, and clots and shreds denoting irritation are voided—in short, dysmenorrhœa is set up. In the intervals an abundant leucorrhœal discharge is usually present.* These symptoms cannot exist without the patient's general health suffering more or less; the stomach, which has an intimate sympathy with the womb, becomes disordered, the appetite is capricious and irregular, the tongue loaded, the bowels constipated, the patient's spirits are depressed and irritable, and a variety of nervous hysterical affections are apt to occur. Such symptoms as these, though they do not prove the existence of a displacement of the womb, yet evidently localize the affection there, and warrant further examination per vaginam, which alone can enable us to determine with certainty the existence of this displacement, and to rectify it.

In examining a case of retroflexion of the uterus during life, the finger can frequently reach a firm globular mass, situated behind the cervix uteri, between the rectum and vagina; this is the fundus uteri, which is bent downwards and backwards, the os uteri instead of being forcibly dragged upwards and forwards behind the symphysis pubis as in retroversion, is little, if at all, removed from its natural situation. At first we may not be able to determine this globular mass to be connected with the uterus at all; it may appear to be merely a scybalous collection in the rectum, hence we should always, if possible, before examining a patient, prescribe an aperient or an enema to remove this source of error. In other cases the tumour may be too high up to allow the finger to trace its continuity with the cervix, whilst in others again, the point of curvature being low down, the fundus is much below the os uteri, and its continuity is easily traced by the experienced finger.

The exact position of the retroflexion varies considerably in different individuals, and even in the same individual, at different times; the point of curvature may be so high up that a very small portion of the fundus is all that is bent down. On examination per rectum we feel the same globular mass through the anterior wall of the intestine, and being able to reach much higher up in this direction than per vaginam, we can frequently verify or correct our first impression.

It is, however, by the use of the uterine sound, that we can obtain sure and valuable information of the displacement of the womb. In a case of retroflexion, on passing the instrument in the natural direction upwards and forwards, it becomes almost immediately arrested; but on turning its point in the contrary direction, backwards and downwards, it will pass readily along the cervix uteri, and then glide downwards and backwards to its full extent of two inches and a half. The point can now be felt distinctly in the centre of the tumour, through the posterior wall of the vagina, or the anterior of the rectum, thus proving it to be the fundus

uteri in this unnatural position. Nor is this all, by turning the instrument gradually and gently round, so as to bring the point upwards and forwards, at the same time assisting the elevation of the fundus with the forefinger of the left hand, we shall find that the tumour disappears, it can no longer be felt, the fundus is restored to its natural situation, and retained there by the sound without it; the patient will often be immediately relieved from the constant pain and uneasiness from which she has previously suffered in the sacral region.

In some instances the mere restoration of the fundus to its position is sufficient; it remains there permanently, even after the withdrawal of the sound; in others for a short time only; but in many cases, especially in those of old standing, the disposition of the fundus to return to its unnatural position is so great, that it requires the handle of the sound to be held pretty firmly to prevent its turning it round, and as soon as the sound is withdrawn, the fundus again retroflexes, and we can again trace the tumour as before.

The examination and passage of the sound produces in many instances little or no pain, until we elevate the fundus, when the instrument, pressing on the ovary, which we shall afterward see is extremely apt to become congested and inflamed in consequence of the displacement, occasions severe pain, which, however, immediately ceases on our completing the restoration. In the examination per rectum the pressure of the finger on the fundus above occasions no pain, but if we elevate it, the patient immediately complains, and by passing the finger beyond the depressed fundus, we can discover the exact seat of pain to be the posterior and upper part of the fundus, in the situation of the ovary, which we can often feel as an oval body. These last symptoms are dependent on the inflammation of the ovary, and cannot, therefore, be regarded as essential to retroflexion of the uterus, but as the consequence of a complication. It occurs, however, sufficiently often, to render it advisable in all cases of oophoritis of long standing, to examine carefully into the position of the uterus.

In some cases the canal of the cervix is so small as to prevent the passage of the sound; in such a case the dilator must first be employed, until a sufficient passage has been obtained. Dr. Rigby is of opinion that this extreme narrowness of the cervix is rather owing to a congenital formation than to the bent state of the fundus, which last, however, he regards as sufficient not only to obstruct the free discharge of the catamenia, but to prevent conception.

I will here introduce to the notice of the Society the dilator which I am in the habit of employing, and which I believe to be the most efficient; it is that invented by Dr. Protheroe Smith. The power of the screw is the moving power, and it is capable of being regulated at the pleasure of the operator. After one or two dilations we shall be able to pass the sound through the cervix, and ascertain the state of the fundus.

If any of you are still sceptical of the benefits to be derived from the employment of the sound, let me quote a passage from a paper read by Professor Simpson before the Dublin Obstetrical Society, shortly after he proposed his instrument to the profession. He says, "In one of the first cases in which I recognized by the uterine bougie, the existence of retroflexion of the unimpregnated uterus, the patient had some years previously been doomed by the highest obstetric and pathological authorities in England, as suffering under the first stage of scirrhus uteri, the displaced fundus having been mistaken for a carcinomatous tumour. The uterine displacement was easily rectified by the use of a wire pessary, worn for some months in the uterine cavity, and the patient is now in the enjoyment of the best of health. I have seen other cases of the same mistake with the same curious but common form of uterine displacement."

* In cases immediately following abortion, reproduced by a too early recurrence to ordinary occupations or undue exertions. I have observed the hæmorrhage to continue a longer time than usual, and even become constant.

MATERIA MEDICA AND CHEMISTRY.

Observations on the Tincture of Acetate of Iron, with Two New Processes for its Preparation. By M. DONOVAN, Esq., M.R.I.A.—A preparation was once in medical use called by an extraordinary misnomer, Tinctura Saturnina, although it was really an alcoholic solution of acetate of iron. It was made by mixing acetate of lead with sulphate of iron and adding spirit of wine; but the nature of the decomposition that takes place when these ingredients are mixed being not then understood, the acetate of lead was supposed to run in, as such, in full energy. This tincture was celebrated in the cure of consumption and hectic; but as a little of the acetate of lead escaped decomposition, its exhibition was sometimes followed by disagreeable consequences.

The process was improved by Glauber, who substituted acetate of potash for acetate of lead, and thus removed the objection to this useful medicine.

When the first Dublin Pharmacopœia was in preparation, many experiments were made on this tincture by the late Dr. Perceval, then professor of chemistry in the University. It was known that when equal weights of acetate of potash and sulphate of iron are used, the tincture continually lets fall an ochrey precipitate, and therefore constantly loses its power as a chalybeate. Dr. Perceval conceiving that the presence of water, in the spirit of wine made use of, was the cause of the evil, and explaining the fact by a theory which I believe was not well founded, employed alcohol, and found, as he informs us (*Transactions of the Royal Irish Academy*, vol. ii. p. 1), that a tincture so made did not precipitate. Experience, however, has not confirmed this statement.

But as alcohol was at the time an article difficult of procuring, Dr. Perceval made many efforts, as he long afterwards informed me, to obtain a tincture of a permanent constitution, with spirit of wine, but unsuccessfully.

At length, a discovery was announced by Mr. Watts, an apothecary of Dublin, that if the acetate of potash be used in double the quantity of the sulphate of iron, there will be no precipitation, even when spirit of wine is employed. Dr. Perceval explained this by supposing that the water of the spirit was held engaged by the excess of acetate of potash, an explanation which we need not investigate, inasmuch as the alleged fact is not well founded, as will presently be seen.

I have made this tincture under every variety of process that I could think of, always adopting the materials and proportions of the Dublin Pharmacopœia. Sometimes the trituration of the materials was continued day after day, to allow a sufficient time for the absorption of oxygen by the protoxide of iron: sometimes the trituration was only continued until the materials had deliquesced. At other times the drying of the mass was rapid; at other times slow; other times it was not dried at all; and, in fine, variations were used which it would be in vain to describe. By any of these methods I often succeeded in producing a good tincture, and by all of them I very frequently failed. Either the tincture was pale, weak to the state, or permanently muddy, or it was continually depositing a brown sediment; and all this happened whether rectified spirit or alcohol, had been used. In cases where I succeeded best, a small quantity of brownish precipitate would at length appear, and this would happen as often as the former was filtered off, so that after many months the tincture became very weak, and in longer time even colourless.

I might attribute these failures to want of skill on my part, if I only had been thus unsuccessful; but the experience of every one with whom I have conversed agrees with my own. I venture to affirm that in no two apothecaries' establishments in this city will this tincture be found precisely alike, if it have been made by the apothecary himself in each case. A new process then is assuredly wanted.

But before I enter on this, it is necessary to state some particulars relative to the constitution of the tincture and to the defects of the process of the pharmacopœia. The use of the excess of acetate of potash directed, I believe, to be as follows. Peracetate of iron, in solution, when treated with a certain quantity of potash, is not decomposed; for the peracetate always contains an excess of acid, and the excess is saturated by the potash. A triple peracetate of iron and potash is the result; this is soluble in either alcohol or water; and the solution is of a deep brown colour. In the pharmacopœial process the peracetate of iron,

formed by double decomposition, combines with the excess of acetate of potash, and the triple salt above-mentioned is produced. A tincture of this triple salt is much less liable to change than a tincture containing peracetate of iron only; but in process of time it is decomposed, and oxide of iron is deposited.

When this deposition has taken place, if the tincture be distilled, acetic ether will come over along with alcohol. The fact points to the nature of the decomposition which time effects in the tincture—a decomposition so complete that at length the whole of the iron is precipitated, and the liquid deprived of all colour. The acetic acid of the peracetate is withdrawn from the oxide of iron, and by its action on the alcohol, acetic ether is slowly produced; hence the highly agreeable smell of old tincture of acetate of iron.

An excellent tincture of acetate of iron may be produced in a few minutes, and without risk of failure, by the following process. Mix two drachms of red oxide of iron, prepared according to the Dublin Pharmacopœia, with half an ounce weight of sulphuric acid; and expose the paste to the heat of a spirit lamp for a few minutes; when it will suddenly solidify. Instantly remove the lamp; triturate the solid mass with nine drachms of acetate of potash, and add eight ounces of rectified spirit. The tincture is now complete; and without any digestion, will, by filtering, at once afford a transparent, beautiful, deep-crimson liquor, which in one drachm measure generally contains one grain of peroxide of iron.

This process is, as far as I know, unexceptionable, provided that the tincture is not to be kept longer than a few months; but it at length begins to deposit, and then the decomposition will slowly proceed, no doubt to the full extent, although I have never had it on hands long enough to prove the fact. If the above quantity only be prepared at a time, it will not be impaired until, in the course of business, time will have elapsed for its consumption.

A much more permanent tincture, and which I have never known to change, may be produced in the following manner; but the method is a little more troublesome.

Take two ounces of precipitated carbonate of iron, and sixteen ounces measure of commercial acetic acid of such strength* that one part of it to seven of water will be equal to distilled vinegar.

Introduce them into a glass matras, and when the slight effervescence is over, boil the mixture until the whole is reduced to twelve ounces; when cold, filter.

Expose the blood-red solution thus obtained in a broad, shallow dish for three days, and then pour it into any glass vessel large enough to hold three or four times the volume of the liquid.

To this add fifteen drachms of common carbonate of potash (sal tartari) by degrees; so that the effervescence may not be unmanageable.

When the effervescence is over, add twenty-four ounces of rectified spirit, and filter.

This tincture will measure about thirty-two ounces, and will be of a fine deep red colour, and styptic agreeable taste.

The tincture thus produced will not deposit; at least I have had it on one occasion for eighteen months without the slightest deposition beyond what is necessary for its perfect clearing; in most cases, the filter allows a minutely divided, and at first insensible oxide of iron, to pass through it.

The theory of the process is obvious. The precipitated carbonate of iron, no matter how long exposed to the air in drying, always contains a quantity of protoxide of iron. The oxide will, therefore, when heated in acetic acid, afford protacetate and peracetate of iron. The former salt, although little soluble in rectified spirit; will dissolve, at least to a certain extent, in spirit so much diluted; but much of it would separate in some days, and form a coating on the sides and bottom of the containing vessel. To prevent this change, the acetic solution of iron is to be exposed to the air; the protacetate is thus converted into peracetate.

But this peracetate if simply dissolved in rectified spirit would afford a tincture from which the acid would soon be abstracted and acetic ether formed. To prevent this, and to give the tincture permanence, we must convert the peracetate into a triple salt, by the addition of potash, and then we accomplish what the pharmacopœial process contemplated, but failed to effect.

*Acetic acid of this strength can be procured from any druggist.

There is no use in here inquiring why this tincture is more permanent, more easily prepared, and so much more certain of success in the preparation than that of the pharmacopœia; the fact is sufficient for our purpose. I have been induced to give publicity to these observations, believing that the tincture of acetate of iron is in hazard of being expunged from the new pharmacopœia on account of the uncertainty of its composition, when prepared according to the process hitherto employed.

THE

British American Journal.

MONTREAL, MARCH 1, 1848.

THE REPEAL ASSOCIATION AGAIN.

"Ecce iterum Crispinus."

The members of the Repeal Association are wrathful; and two of them have been shedding much ink, our sweet selves being the burthen of their ireful song. And why? because, forsooth, we likened their proceedings to the fickle and capricious acting of an infant! The Association, we learn now, numbers among its members, "*hommes murs sages et éclairés.*" Be it so. It proves that grey heads are not always heads of wisdom, and that there is a stage of senescence, the mental endowment of which verges rather upon that of puerility, than upon that which usually appertains to adolescence. We might in charity have assumed the latter, but facts forbid it, and to facts, as in duty bound, we pay especial devotion. No one has greater reverence for them than we have.

We are accused, however, of inconsistency (save the mark!) Inconsistency in strenuously advocating to-day, what, it is alleged, we repudiated in 1846. But how stands the case? We have never uttered one word against the principle of an Act of Incorporation for the profession. We argued against the delegation of *unlimited* power to the Council, as well as against several other objectionable features in the Bill proposed at the Three Rivers meeting. And was this *unlimited* power granted in the present Act? No. A limited power, like a limited monarchy, we approve of. We desired that the *profession*, like the *people*, should speak; our desire has been accomplished; and their will shall be fulfilled. Our opponent, with the queer title, when giving his text, should have quoted the context, which in this instance would be found most materially to modify the sense; and would have enabled him, unless he viewed with jaundiced eyes, to have seen the drift of the argument at that time adopted, from which, even at this moment, we see no reason whatever for dissenting. There are some people in this world, who cannot see. There are a greater number who will not. Among the latter unenviable class, we are constrained to place our doughty and Quixotic antagonists. No length of labour would relieve their visual obliquity. To reason with them would be a sacrifice of time, and valuable space in our columns, which might be much more profitably occupied.

Let not the valorous champions of the Repeal Association suppose that we are writing under feelings of irritation. Our breast is full of the milk of human kindness

and compassion. We will spare the rod, even at the risk of spoiling the *child*. On the contrary, we have been highly delighted at their productions. They give promise of future excellence. We particularly admire the ingenuity with which the one with the queer title, (he styles himself "a Licentiate of the Association of Doctors, and a Member of the Medical Society of Emulation!") has exhibited in quoting from our writings exactly and to a nicety, as much assuited his own purpose. Did we call it ingenuity? No. It is the evidence of decided talent, and one, too, of a high and peculiar order. We particularly recommend him to cultivate it, for he will considerably enhance his reputation thereby. And a reputation is something. It is certainly more than something, even if only equal to his to whose professional avocation the words "by habit and repute" are usually prefixed, to mark the gentleman's undeviating rectitude of conduct, and inflexibility of purpose.

The gentleman, however, with the queer title, asks us to republish his valuable letter in our columns. For the information of the Profession generally we desire to remark, that in typification of Minerva's birl, famed for qualities far less creditable than its wisdom, it is to be found in the "*Minerve*" newspaper of the 17th ult. We decline the intended compliment which he confers on ourselves and our subscribers: and for two reasons—firstly, that, after our express invitation, he has not deemed it proper to avail himself *directly* of our columns, although freely offered; and secondly, because he had not the courtesy to send us a copy of the paper in which his article *originally* and by preference appeared. Now, we were compelled to pay five coppers for his *article*, or else forfeit the pleasure we have derived in perusing it; but having perused it, and deeming that our subscribers would not equally value a document which cost us so small a sum, and which was evidently sold at its actual worth, the intrinsic value of an *article of an indefinite character*, we have most unwillingly come to the conclusion to decline the compliment. In lieu of it, however, we seize the opportunity to present to them the following excellent letter on the subject, with three or four copies of which we have been politely furnished by mail.

To the Editor of the Quebec Mercury.

SIR,—The very earnest desire which you have at all times evinced in imparting to the medical profession, whatever might bear connexion with the general interests of its numerous members—and so recently evidenced, by your judicious and well timed advocacy of the integrity of the proceedings of the constituted governing body of the College of Physicians and Surgeons, and in opposition to a factious party, lately organised in Montreal, induces me to submit the following exposition for publicity.

As a matter which, in some measure, might be restricted to the profession, I ought, perhaps, to content myself with the analysis of the assumptions of the party in question, by the distinguished and learned editor of the British American Journal of Medical and Physical Science; but that excellent periodical, I regret, has not that circulation among the members of the profession which it ought necessarily, and I may say, indispensably, to have—and; although the only Medical periodical in the province of Canada, I am almost persuaded to the belief, that a large body of our rural practitioners, would, at all times, give preference to one of a purely political nature!

As a member of the medical profession, you are not without the knowledge, that for several years, its most influential and leading members have strenuously exerted themselves to secure,

through legislative enactments, such provisions, as might be most conducive, not only to the protection of the general interests of that profession, but as might also tend to elevate its character to that position and standard, which its great importance and high moral responsibilities to society so justly and so pre-eminently entitle it; but, I am ashamed to be compelled to confess, that a want of unanimity, originating in unsocial, jealous, and party views, have invariably rendered the issue unsuccessful.

Without entering at length upon the details of proceedings, which, within two years, have generated a more active movement among the members of the profession in Lower Canada, towards the furtherance of an object so long claimed and so long desired, I shall merely, and as condensely as possible, advert to these few particular circumstances which so greatly contribute to advance, and ultimately to obtain from the Legislature, the present Act of Incorporation—and, thereby placing at the disposal of the body (after some amendments) ample power to frame its own rules and government.

In October, 1846, a numerous body of medical practitioners, from the several districts of the province, met in general convention, at Three Rivers, in pursuance to printed circular letters addressed, but with few exceptions, to every member whose residence was known by the Secretary of Medical Delegates of Districts, assembled under the presidency of Dr. Morrin, at Quebec, on the 5th September, 1846, for the purpose, as detailed in that circular, of submitting to their consideration a project for incorporating the Medical profession of Canada East, into a College of Physicians and Surgeons.

Moved by Dr. Painchaud, seconded by Dr. Valois.—That the proceedings of this day's convention be submitted to a General Convention of the Medical profession of Canada East, and that the said meeting be summoned by the Secretary, to be held at Three-Rivers, on Wednesday, 14th October next.

Moved by Dr. Kimber. Seconded by Dr. Arnoldi, junr.—That a sufficient number of copies of the proposed project be printed, and circulated with the least possible delay among the Practitioners of Canada East.

This general meeting, at which Dr. Wolfred Nelson presided, and Drs. Fremont and Arnoldi, acted as Secretaries, unanimously resolved—“That while it deeply deploras the inadequacy of the existing laws, for regulating the Medical profession in this section of the province of Canada, both as regards the education of intending members, or the protection of those licensed to practice the same congratulate itself on the feeling manifested on the present occasion, to devise ways and means by which such difficulties may be obviated, and the profession of Medicine made to assume that position to which it is entitled among the other learned professions.”

Here then was a resolution, at once declaratory of the defection of the laws, and demonstrative of the tenacity of a large body of prominent and influential members of the profession to any legislative measure, which might redeem the abuses and grievances of more than half a century!

The several clauses, upon which it was intended to base an act of incorporation, having been freely but harmoniously discussed by the meeting—and so amended and modified as to secure the unqualified acquiescence and sanction of the whole profession, it was finally and unanimously resolved, on the motion of Dr. Jean Blanchet, seconded by Dr. Oulet.—“That a permanent committee of nine be appointed to superintend all matters connected with the presentation of the petition, by correspondence or otherwise, and that it be authorised to use all necessary means for carrying the measure through Parliament; and that the said committee consist of Drs. Morrin, Blanchet, and Painchaud for Quebec; and Drs. Valois, Arnoldi, and Badgley for Montreal; and Drs. Vonffland, Gilmour, and Beaudry for Three-Rivers.”

From that period the most active means were employed by those who had taken the initiative, (and whom, I may say, had grown grey in the cause of *medical reform*) to secure the consummation of a boon, so long, so perseveringly, but so unavailingly prayed for; and almost every member, irrespective of years, or standing in the profession, or remoteness, or even isolation of residence, were at considerable labour and expense, invited to an expression of their views, and to become parties to the contemplated act of incorporation. If many, then, have failed to avail themselves of the arduous labours of their more zealous brethren, they have only to place the sin of omission to their own door, pre-supposing, on their own part, an utter disregard or unconcern on a

matter of so much importance, as one involving their best and most vital interests. It is, moreover, a well-established fact, that there exists not a single medical practitioner in any rural section of the Province who is not a subscriber to, or reads, some political newspaper or other, and through these, during the sitting of Parliament, every information touching the presentation, reception, and progress of all measures can always be acquired. It is, therefore, untenable, and even absurd, to complain of the denial or want of opportunity to become members of the incorporation.

It may not be out of place to observe, that during the progress of the bill through Parliament, the medical gentlemen in the popular branch of the Legislature, in conjunction with the permanent committee at Montreal, some of the professors of McGill College School of Medicine, and other leading and distinguished members of the profession, advised the present act of incorporation to be so framed as to all intents and purposes to meet the approbation and sanction of the profession in general,—it appeared, broad, liberal, and comprehensive, comprising an equal amount of justice, protecting the rights of all parties, and perfectly divested of the least exclusive feature—Such then is the bill, which, when it had passed the three branches of the Legislature was hailed by the great mass of the medical profession as the most grateful gift within the power of Parliament to bestow; and it was truly so; save the *temporary* disfranchisement to its full benefits of a few highly deserving members, and the introduction of some amendments; but which can only be necessitated, as Dr. Wolfred Nelson, a gentleman, who, for upwards of thirty years, devoted his best energies to the interests of that profession, and the representative in Parliament of one of the largest constituencies in Lower Canada, very judiciously observed at the General Meeting of the members, called together by proclamation, for the election of Governors: “that it was true, that in enacting laws it was next to impossible to frame them so perfect as not to render them, by force of circumstances, susceptible of improvement—the operations of a law could alone point out its imperfections, and, therefore, necessitate changes or modifications.”

I shall enter now upon the execution of the mandate of the head of the Executive Government, intrusting and enjoining to the first President of the College, (Dr. Arnoldi, *senr.*) therein named, the organization of the members of the Incorporation, and the election by, and chosen from among themselves of thirty-six Governors.

The call of the President was very generally responded to by the members of the incorporation, and several other gentlemen of the profession, whose names, from a want of proper personal action at the time required, were excluded from the rights and privileges of membership, then comprised in electing and being elected.

The Proclamation of His Excellency the Governor General, and the Statute of Incorporation, were duly read, by one of the Secretaries—not a word was uttered—not a whisper heard, against section or clause of the law—but the moment a letter of counsel from the Attorney General, addressed to the President, in reply to some doubts entertained by the latter to the eligibility of admission to the right of Membership of seven gentlemen, whose names had been inadvertently omitted by the Secretary in the Act of Incorporation, was read, then a cry was raised for the indiscriminate admission to the same rights, of every medical practitioner then present—and followed up with such pertinacity, and even without reference to the law, but a few moments before imparted to them, that the President under a proper sense of the importance of his position, joined by the more moderate and calm solicitations of at least, two thirds of the Members of the Corporation, adjourned the proceedings, for a short time, in order to obtain the opinion of the first law Officer of the Crown, on the legality of entertaining the motion proposed by Dr. Coderre, to the effect of, as already stated, indiscriminately admitting to Membership every practitioner, who, at *considerable trouble, expense and inconvenience* had thought proper to be present at the exhibition of the senseless and discreditable pretensions of this Dr. Coderre and his partizans.—The result of the reference to the Attorney General, was, as might have been anticipated—the inadmissibility of such pretensions. This attempt—so palpably in contravention to the statute before them—and, if successful, positively invalidating the fundamental proceedings of the incorporation, was evidently made to secure an accession of Members, who, gratified at their new and unexpected position, were prepared in return, to subserve the ends of their dictators—place at

their disposal their suffrages, and thereby constitute them, and them alone, the governing and administrative body of the College of Physicians and Surgeons of Lower Canada!!

Not however satisfied with the given opinion of the Law Officer of the Crown, they persisted, regardless of all considerations, to force their motion upon the sense of the general meeting, until the President declared his firm determination not to entertain so illegal a proceeding.

I shall recall here another attempt, as immediately following the other to exclude from the governing body of the College a numerous class of gentlemen, not only of long standing—of eminent acquirements; but of high distinction in the profession, but, who have also, for many years, been most unremittingly indefatigable to promote by every means in their power, the general interests and advancement of the medical profession; and, I may unhesitatingly state, that if we were that day assembled together, upon one of the most important occasions of our professional lives, we must attribute it, in a great measure, to the zeal and exertions they devoted in the furtherance and realization of long deferred and long denied claims. It is impossible for any man of candour to reflect on this perversion of proper feeling of duty, without partaking of the astonishment, that it could have originated in one whose position and elevation of character ought to have proved a guarantee to the moral laws and obligations of good faith, as well as their standard of action. This attempt, so invidious in itself, of excluding by a *coup d'état*, the ablest and most distinguished men in the profession from seats in the Governing Council, was, however, timely met by Dr. Marsden, then of Nicolet, and Dr. Archibald Hall, of Montreal, by an amendment to the effect of proceeding to the election of governors, by ballot, which was carried by a majority of nearly two-thirds of the members of the College. The consequence of this proceeding, was, it is true, the return to seats, as governors, of gentlemen of the most desirable qualifications, yet, we have to regret the exclusion of others of equal distinction, both in Quebec and Montreal.

In reviewing the existing Act of Incorporation, and against which a certain number of disappointed members of the profession are arrayed, a very few words will suffice. It is a law which has been obtained after a persevering struggle of upwards of twelve years—during which long period, we availed ourselves of every suitable occasion to urge upon the legislature the pressing necessity, on public grounds, of enactments consonant to the general interests and advancement of the medical profession. By it, we are enabled to maintain a permanent collective organization,—with an authoritative council and officers, to protect the general interests of the Practitioners, and to extend the curriculum of those who may aspire to take rank in the profession; and, moreover, what is of the greatest importance, the profession becomes united under a representative system of medical government, and to which all legally qualified members can be equally and unreservedly admitted.

The members may meet at the stated periods, for the purpose of evincing their suffrages, and of selecting from among themselves a given number of Governors, in whom are entrusted, for a limited period, the administration and government of Collegiate affairs. But, as the suffrages to be exercised upon these occasions are those of educated men, and who ought necessarily to seek the elevation and independence of their profession, not solely for personal, but for public advantage—they should be divested of all passions and prejudices, and no other feelings should dictate their selection of Governors but those of honest conviction in their scientific acquirements and integrity of character. Seats in the Council are among the highest honors to which a certain portion of the profession can aspire; it therefore becomes a question of some importance, whether these distinctive posts are to be filled by men who reflect the respectability and character of the medical profession in Lower Canada, or, merely a numerical cabal of opposite attributions? For it must be seriously considered, that the members composing the council can only represent the profession in so far as they are distinguished by scientific attainments and capabilities, and, as also, must the profession, in some measure, rise or fall in the estimation of the republic of Science!

This law, then, the operation of which has gone little beyond the organization of the members of the Incorporation and the election of Governors, and when even the by-laws and rules for the guidance of the College have yet to be framed, submitted, and

discussed by the whole body of members before their legal institution and effect,—yes, this very law, because in its primary operation it has failed to place, arbitrarily, a few ambitious young men in its administrative powers, is absurdly enough represented as oppressive, and totally inefficient in its application to the wants and wishes of the medical profession! An association is in consequence established, composed chiefly of the practitioners whose want of personal exertion excludes them for the time from the rights and privileges of membership to the College, and of others, who by the sense of the rightful members, have been excluded from the higher grade of Governors—the object of which association is to petition the approaching parliament for the repeal of the existing law, only passed in the last session, and yet untried, and the substitution of another, *more liberal and comprehensive in its views*.

We certainly live in extraordinary times; but it is almost impossible to imagine that the Legislature could entertain for a moment a measure so grossly partaking of selfish ends, and so ill calculated to place in proper estimation the great importance of time to a body pressed upon all sides to the deliberation of matters of more permanent and urgent necessity, and claimed by the whole Province; and the most befitting answer which can be made to the authors of the present movement of the association in question is that lately made, in reply to their circular letter of invitation, &c., by a gentleman of some standing in the profession,—“For upwards of twenty years the profession has solicited the Provincial Legislature for enactments, approaching, as nearly as possible, to those contained in the statute granted at the last session; and I would certainly deem the term of that Legislature very ill-employed, when considering the very pressing and momentous measures which may be brought before it at its ensuing sitting for the general interests of the Province, were even an hour wasted in entertaining the petition of your association, founded, as it appears, on views, not to elevate the character and respectability of the profession, but merely to resist by a factious opposition, the constitution of the actual governing body of the Corporation.”

AN OLD PRACTITIONER.

3rd February, 1848.

Meeting of the Profession in Quebec.—We quote the following proceedings had at a meeting of the members of the College of Physicians and Surgeons in Quebec, on the repeal question, at present so much agitated by a certain party in this city. We certainly do not see much difference between the amendment, which was carried, and the original motion. Some amendments, we think, are required in the Bill, but their nature and their extent cannot be fully appreciated until the Bill has been put fairly in operation:—

At a meeting of the members of the Medical Profession of the District of Quebec, held on the 10th inst., in the Parliament Buildings, in order to take into consideration matters of importance for the College and the profession generally, were present:—Drs. Morrin, Panchaud, Rowley, Frémont, Poole, Fortier, Marsden, Nault, Sewell, Blais, Jackson, Rousseau, Hall, Robitaille, Bardy, Labrecque, Wolff, Von Iffland, R. H. Russell, J. R. Russell, J. Douglas, Tourangeau, Roy, Rinfret, Hubert, Wells, Watt, Fitzpatrick, McGrath, Eastaff, Moffatt, P. Larue, Stewart, Stansfield, Landry.

Dr. Morrin was called to the Chair, and Dr. Landry requested to act as Secretary.

The President having explained the object of the meeting, it was

Moved by Dr. Bardy, and seconded by Dr. Stansfield, “That it is the opinion of this meeting that the Bill incorporating the College of Physicians and Surgeons of Lower Canada, as passed in the last session of the last Parliament, is sufficient to regulate the study and practice of medicine and surgery in this Province without being amended at present, inasmuch as the Bill cannot be put in full operation until after the by-laws have been submitted for the approbation of the members of the College, and for the sanction of the Governor-in-Chief; and, inasmuch as the amendments to the Bill may be asked for, as necessity may point out, during the working of the Bill.”

Moved, in amendment, by Dr. Rousseau, and seconded by Dr. Roy,

"That since the passing of the present Bill of Medicine, experience has shown that the Bill is not adequate to the general want of the profession, and that it is urgent to amend it immediately."

This amendment, being put to the vote, was lost, Dr. Rousseau voting alone in the affirmative.

Then Dr. Sewell, seconded by Dr. Roy, moved in amendment, "That it is the opinion of this meeting, that since the passing of the present Bill of Medicine, experience has shown that the Bill is not entirely adequate to the general wants of the profession, and that it is advisable to ask such amendments as the working of the said Bill may prove desirable."

This amendment was carried, the votes being divided as follows:

For the amendment.—Drs. Nault, Sewell, Blais, Rousseau, Roy, Hall, Hubert, Jackson, Moffatt, Poole, Wolff, R. H. Russell, J. P. Russell, Fortier, P. Larue, Rinfret, Tourangeau, Labrecque, Wells—19.

Against the amendment.—Drs. Painchaud, Robitaille, Bardy, Stansfield, Von Iffland, Fitzpatrick, McGrath, Stewart, Watt, Rowley, Marsden, Frémont, Eastaff, Landry, Morrin—15.

Mr. President having left the chair, Dr. Fortier was called to it, and

Dr. Painchaud moved, seconded by Dr. Tourangeau, "That the thanks of the meeting are due to the President and to the Secretary."

(Signed) JOS. MORRIN, President.
J. E. J. LANDRY, Secretary.

Quebec, 10th February, 1848.

LIST OF LICENTIATES.—Continued.

The following names were omitted in their proper places in the Lower Canada list:—

Thomas Moore.....	Aug. 31,	1821
J. Surveyor.....	July 1,	1835
Robert William Evans.....	May 12,	1845
Francis Codd.....	Nov. 3,	1846

LICENTIATES OF THE COLLEGE OF PHYSICIANS AND SURGEONS, CANADA EAST:

Samuel B. Schmidt, M.D.....	Nov. 27,	1847
P. M. Dease, M.D.....	Nov. 27,	1847
John Fisher, M.D.....	Nov. 27,	1847
Elie Lacerte, M.D.....	Nov. 27,	1847
Charles Lafontaine.....	Nov. 27,	1847
A. P. Larue.....	Nov. 27,	1847
Louis E. Duboid.....	Nov. 27,	1847
John P. Rottot.....	Nov. 27,	1847
William Mayrand, M.D.....	Dec. 6,	1847
Roger D'Aoust.....	Jan. 22,	1848

LICENTIATES OF MEDICAL BOARD, CANADA WEST.

James Bovell.....	Jan. 15,	1848
Godfrey H. Schmutter.....	Jan. 15,	1848
John Murphy Hardy.....	Jan. 15,	1848

Our American Exchanges.—We are still without the receipt of any of our American exchanges, with the exception of the *Medical Examiner* and the *Dental Intelligencer*. A late number of the *Boston Journal* came to hand announcing the alteration of the American postal arrangements as the cause. Having lately requested Messrs. R. and G. S. Wood of New York to act for us as agents in receiving and transmitting to us our exchange journals, our contemporaries with whom we have had for three years uninterrupted and pleasant intercourse, are requested to send their issues to their address, 261, Pearl Street, New York. As our files

are broken since Dec. 1st ult., it would confer on us an especial favour to be put in possession of the back numbers. We cannot forbear here remarking, that fearing that some of our exchanges might have been detained at Highgate, we addressed the postmaster of that place a letter requesting information on the point, and the amount which might be due, for the purpose of remittance; but to this letter we have received no answer. We duly appreciate the courtesy of the postmaster in not answering our letter; and it is right that our contemporaries should be made acquainted with the circumstance, lest, peradventure, there should exist a fondness for cheap medical and scientific lore on the frontier.

NOTICE TO CORRESPONDENTS.

The *Argus* (Kingston), of date Feb. 18, has come to hand, containing the copy of a letter, dated Jan. 8, 1848, from Dr. Stewart, of Kingston, alleged to have been addressed to us. That letter has never reached us. We are, nevertheless, obliged to Dr. Stewart for the hint which he has furnished us. In the Upper Canada list of Licentiates, the hiatus between April 3, 1839, and June 17, 1841, did not escape unnoticed. We did our utmost to fill up the void, but we could get no clue. We addressed a letter to a medical friend in Toronto alluding to the circumstance, but had received no answer. Dr. Stewart's license is dated October 26, 1839. We have also received a letter from Dr. W. E. Eratt, whose name was omitted from the same cause, and whose license is dated Sept. 3, 1840. We have now not the slightest doubt that the names of a number of others, whose licenses bear date during the interval alluded to, have been omitted. Dr. Stewart has referred us to Dr. O'Brien, of Toronto, the Secretary of the then existing College of Physicians and Surgeons of Upper Canada, we hope that gentleman will furnish us with the list of the parties who received their licenses to practise from that source. It is the interest of every practitioner in the Province, that the list of licentiates be correct and complete. We have ourselves taken a very great deal of trouble to ensure accuracy; and we believe that the lists now published, with the exception of the licenses issued during the period alluded to, are complete. We will publish the list in the form of an addendum, as soon as possible after Dr. O'Brien will have communicated with us, which he is particularly requested to do. The report of cases at the Marine Hospital, Quebec, in which chloroform was employed, has been received from Dr. Douglas, (Quebec.) Dr. Warthington's (Sherbrooke) cases, in which the same anæsthetic agent was employed, have also come to hand. Dr. Melville's (Niagara) letter, containing the information requested, has arrived. Dr. Marsden's paper, on "The Use of Tea as a Beverage," is unavoidably still further postponed. We have been so flooded with original matter this month, that we have considered it our duty to increase the size of the Journal, by an additional eight pages, to afford to our readers their usual periscope intelligence.

Since the foregoing was written, a paper by Dr. Winder, "On the Use of Digitalis in the Cachexia of Children," and another by Dr. Reynolds, Brockville, "On Diseases of the Pregnant State," have come to hand.

BOOKS, &c., RECEIVED.

- Dublin Quarterly Journal. November, 1847. August No. not received.
 - London Medical Gazette (regularly).
 - Dublin Medical Press (regularly).
 - Dr. Drake's Introductory Lecture.
 - Dr. Bedford's Introductory Lecture.
 - Philadelphia Medical Examiner. February.
 - The Dental Intelligencer. January.
 - New York Annalist.
- The attention of our American contemporaries is respectfully requested to an article addressed to them in our Editorial department.

BILL OF MORTALITY for the CITY of MONTREAL, for the month ending JANUARY 31, 1848.

DISEASES	Male.	Female.	Total.	Under 1.	1 & under 3		5 — 10	10 — 15	15 — 25	25 — 35	35 — 45	45 — 55	55 — 75	75 upwards
					3 — 5	5 — 10								
EPIDEMIC OR INFECTIOUS,	Small Pox,.....	2	3	5		1	1	1						
	Scarlatina,.....	4	3	7	1	1	2	3						
	Measles,.....	1	1	2										
	Fever, incl. Typh.	8	16	24	1	5	3	4		4	1	3	2	1
DISEASES OF BRAIN AND NERVOUS SYSTEM,	Dysentery,.....	3	4	7		1	1	2					2	
	Dentition,.....	9	7	16	4	12								
	Convulsions,.....	2	2	3	1	1								
	Hydrocephalus,.....	4	1	5	1	2								
	Cerebritis,.....	1	1	2										
	Delirium Tremens,.....	3	2	5								3		
DISEASES OF THORACIC VISCERA,	Paralysis,.....	2	1	3									2	
	Consumption,.....	12	13	25		1		1	2	4	7	1	3	7
	Pneumonia,.....	2	2	4							1	1		1
	Bronchitis,.....	2	5	7							1	1		2
	Hooping Cough,.....	1	1	2			1	1						2
	Croup,.....	3	1	4	3	1								
DISEASES OF ABDOMINAL VISCERA,	Disease of Heart,.....	3	2	5				1	1					
	Diarrhœa,.....	6	4	10	8	1							1	
	Jaundice,.....	1	1	2		1								
	Worms,.....	1	1	2			1					1		
	Dropsy,.....	1	1	2										
	Still-born,.....	8	3	11	11									
OTHER CAUSES AND DISEASES, AND DISEASES NOT SPECIALLY DESIGNATED,	Debility,.....	2	4	6									2	4
	Accidental,.....	3	1	4			2							1
	Unknown,.....	13	9	22	17	1		2	1		1			
	Other Diseases,.....	14	15	29	10	2	1	5	2		2	1	2	4
Total,.....	107	97	204	57	31	13	22	8	10	16	13	8	21	5

MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR JANUARY, 1848.

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,	+35	+12	+59	+38.5	29.68	29.57	29.49	29.58				Rain	Rain	Rain
2,	" 37	" 36	" 31	" 36.5	29.46	29.54	29.68	29.56				Fair	Fair	Fair
3,	" 39	" 39	" 32	" 34.5	29.35	29.75	23.63	29.74				Fair	Fair	o'erc'st
4,	" 36	" 27	" 14	" 31.5	29.62	29.99	30.09	29.90				Fair	Fair	Fair
5,	" 14	" 17	" 20	" 15.5	30.07	29.64	29.45	29.72				Fair	Snow	Fair
6,	- 2	" 4	- 3	" 1-	29.59	29.68	29.81	29.69				Fair	Fair	Fair
7,	- 8	" 4	- 1	- 2-	29.94	29.97	30.09	29.97				Fair	Fair	Fair
8,	- 1	" 10	+13	+ 4.5	29.90	29.70	29.69	29.73				Snow	Snow	Fair
9,	+15	" 12	- 7	" 13.5	29.20	29.32	29.70	29.41				Snow	Snow	Sto'my
10,	-18	" 0	-16	- 9-	30.08	30.25	30.40	30.24				Fair	Fair	Fair
11,	-24	- 6	-12	-15-	30.45	30.15	30.07	30.22				Fair	Snow	Fair
12,	-12	+ 7	- 6	- 2.5	30.20	30.35	30.40	30.35				Fair	Cloudy	Fair
13,	- 7	" 29	+33	+11-	30.36	30.23	30.15	30.25				Fair	o'erc'st	Cloudy
14,	+35	" 37	" 34	" 36-	30.11	30.16	30.10	30.12				Rain	Rain	o'erc'st
15,	" 41	" 43	" 42	" 42-	29.80	29.62	29.64	29.69				Rain	Rain	Fair
16,	" 28	" 30	" 24	" 29-	30.01	30.13	29.97	30.04				Fair	Fair	Fair
17,	" 32	" 29	" 15	" 30.5	29.75	29.92	30.05	29.91				Fair	Fair	Fair
18,	" 15	" 17	- 1	" 16-	29.69	29.74	30.13	29.85				Snow	Snow	Fair
19,	- 7	" 3	+ 1	- 2-	30.46	30.45	30.36	30.42				Fair	Fair	Fair
20,	+15	" 21	" 21	+17.5	30.13	30.05	29.84	30.01				Fair	o'erc'st	Fair
21,	" 32	" 41	" 17	" 36.5	29.54	29.26	29.67	29.49				Fair	Fair	Sto'my
22,	" 3	" 10	" 6	" 6.5	29.95	29.96	30.00	29.97				Fair	Snow	Fair
23,	" 4	" 12	" 3	" 8-	30.21	30.29	30.42	30.32				Fair	Fair	Fair
24,	- 2	" 9	" 5	" 3.5	30.58	30.45	30.30	30.44				Fair	Fair	Fair
25,	+13	" 41	" 33	" 27-	30.21	30.09	30.12	30.14				Fair	Fair	o'erc'st
26,	" 32	" 33	" 36	" 32.5	30.14	29.96	29.75	29.95				Fair	Rain	Rain
27,	" 37	" 36	" 36	" 36.5	29.64	29.52	29.38	29.51				Cloudy	Rain	Rain
28,	" 33	" 37	" 29	" 35-	29.31	29.25	29.27	29.28				Fair	Fair	Fair
29,	" 27	" 36	" 39	" 31.5	29.31	29.50	29.75	29.52				Fair	Fair	Cloudy
30,	" 22	" 26	" 21	" 24-	29.95	29.94	29.91	29.93				Fair	Fair	o'erc'st
31	" 14	" 23	" 23	" 17.5	29.79	29.54	29.39	29.57				Rain	Fair	Snow

THERM. } Max. Temp., +50° on the 1st
 } Min. " -24 " 11th
 Mean of the Month, +18°9.

BAROMETER, } Maximum, 39.58 Inches on the 24th
 } Minimum, 29.20 " " 9th.
 Mean of Month, 29.883 Inches,

MONTHLY METEOROLOGICAL REGISTER AT H.M. MAGNETICAL OBSERVATORY, TORONTO, C. W.,—JANUARY, 1885.
 Latitude 43° 39'.4" N. Longitude 79° 21'.5" W. Elevation above Lake Ontario, 108 Feet.—(For the Brit. Amer. Jour. of Med. and Phys. Science.)

DAY.	Barometer at Temp. of 32°.			Temperature of the Air.			Tension of Vapour.			Humidity of the Air.			Wind.			Snow in on surf.	WEATHER.							
	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.			Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.			
1.	29.868	29.185	29.368	29.397	46.6°	48.2°	35.4°	41.3°	30.5	31.6	1.60	2.42	.97	.95	.78	.91	S.E. by E.	S. S. W.	N. N. W.	•	Densely overcast. Slight rain till 6 p.m. A few light efts dispersed. Gen. clear till 10 a.m. Rem. overcast.			
2.	29.640	29.607	29.573	29.630	31.3	35.4	36.6	35.9	1.54	1.57	—	—	.88	.76	—	.78	S. W.	S. W. by S.	S. W. by W.	•	Clear till 10 a.m. Rem. overcast.			
3.	29.720	29.956	29.961	29.898	32.1	35.3	18.6	23.7	1.82	1.19	.089	.113	.97	.90	.79	.55	W. N. W.	N. by W.	N. by E.	3.0	Gen. clear. Light clouds dispersed. Clear till 10 a.m. till 9 a.m. p.m. Slight rain till 2 p.m. till 9 a.m. p.m. Slight rain till 2 p.m. till 9 a.m. p.m.			
4.	29.685	29.022	29.471	29.398	25.2	36.2	20.0	24.7	1.27	1.76	.093	.118	.98	.83	.82	.83	Cal.	W. S. W.	NW by N*	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
5.	29.712	29.685	29.650	29.659	11.4	14.2	12.3	12.1	.087	.076	.070	.073	.86	.86	.91	.90	NW by N.	Cal.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
6.	29.653	29.594	29.510	29.559	14.0	19.8	25.3	21.6	.087	.099	.130	.112	1.00	.89	.93	.92	Cal.	N. E.	N. by W.	0.2	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
7.	29.333	29.354	29.298	29.478	30.6	32.0	25.2	20.6	1.55	1.41	1.11	1.15	.93	.78	.79	.90	S. by W.	N. W.	N. by W.	2.0	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
8.	29.333	29.354	29.298	29.478	30.6	32.0	25.2	20.6	1.55	1.41	1.11	1.15	.93	.78	.79	.90	S. by W.	N. W.	N. by W.	2.0	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
9.	29.421	29.584	29.584	29.584	13.8	8.8	—	—	.079	.060	—	—	.85	.87	—	.89	N. W. 2.0	N. W. 3.0	Cal.	0.5	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
10.	30.003	30.155	30.144	30.105	11.0	1.0	6.8	4.5	.079	.045	.027	.036	.90	.90	.75	.89	N. by W.	N. by W.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
11.	29.940	29.635	29.794	29.801	9.8	22.4	21.4	18.9	.063	.109	.106	.094	.86	.87	.80	.86	S. W.	S. W. by W.	S. W.	0.1	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
12.	29.958	29.980	29.942	29.942	8.7	26.6	27.6	23.7	.066	.121	.126	.113	.94	.81	.82	.85	Cal.	S. E.	S. E.	0.1	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
13.	29.804	29.739	29.741	29.758	33.0	36.5	36.0	35.6	1.51	1.88	.194	.181	.80	.81	.92	.87	S. E. by S.	S. S. E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
14.	29.754	29.702	29.575	29.633	35.1	37.6	39.4	38.0	.200	.218	.233	.220	.95	.96	.97	.96	Cal.	N. E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
15.	29.360	29.442	29.764	29.539	39.0	47.0	38.7	38.0	.158	.177	1.68	.207	.97	.98	.88	.89	Cal.	Cal.	W. N. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
16.	29.986	29.897	29.775	29.805	30.1	32.5	—	—	.158	.177	—	—	.94	.96	—	.89	N. W.	S. E. by E.	S. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
17.	29.815	29.960	29.987	29.805	30.7	26.2	15.0	17.0	.132	.092	.112	.111	.78	.64	.78	.75	N. W. 2.0	NW by W	N. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
18.	29.587	29.987	30.148	29.995	25.0	20.6	15.0	17.0	.126	.068	.075	.076	.80	.59	.83	.82	W. by N. 2.0	NW 3.0	N. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
19.	30.267	30.161	29.952	30.073	5.7	21.2	25.0	19.9	.105	.091	.113	.093	.89	.78	.89	.78	Cal.	N. S. E.	S. by E.	not app.	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
20.	29.811	29.705	29.687	29.665	29.7	21.2	25.0	19.9	.123	.168	.167	.155	.74	.65	.83	.78	S. S. W.	S. by W.	S. by E.	not app.	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
21.	29.392	29.479	29.724	29.579	37.3	37.5	23.5	30.7	.168	.126	.094	.085	.76	.56	.72	.68	S. W. 1.5	NW 3.0	N. W. 1.5	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
22.	29.796	29.595	29.691	29.590	15.6	29.2	22.4	23.1	.079	.118	1.11	1.05	.95	.73	.89	.82	N. E. by E.	N. E.	N. E. by E.	not app.	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
23.	29.999	30.015	30.015	30.015	17.2	21.8	—	—	.082	.104	—	—	.92	.87	—	.87	N. E.	Cal.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
24.	30.071	30.012	29.964	30.002	20.6	32.0	26.0	27.1	.107	.141	.134	.131	.93	.78	.94	.87	N. E.	Cal.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
25.	29.919	29.889	29.860	29.864	27.6	35.4	35.4	35.4	.141	.189	.193	.177	.93	.79	.91	.86	N. W.	N. W.	N. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
26.	29.682	29.454	29.383	29.470	37.0	39.0	37.4	37.8	.202	.228	.219	.217	.93	.96	.99	.96	E. by N.	E. N. E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
27.	29.362	29.491	29.921	29.385	36.7	39.6	31.6	36.6	.208	.232	.187	.201	.96	.97	.91	.93	Cal.	S. W. by S.	S. W. by S.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
28.	29.271	29.080	29.091	29.160	31.1	34.4	30.1	30.7	.134	.156	.120	.142	.77	.78	.72	.82	W. S. W.	S. S. W.	W. by N	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
29.	29.390	29.640	29.790	29.584	29.0	31.8	28.8	30.4	.142	.122	.129	.140	.91	.68	.80	.82	N. W.	N. W.	N. W.	0.2	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
30.	29.774	29.652	29.330	29.247	33.2	38.5	—	—	.121	.156	—	—	.83	.89	—	.80	Cal.	E. by N	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
31.	29.330	29.133	29.298	29.247	33.2	38.5	—	—	.179	.214	1.22	1.47	.92	.93	.86	.80	E. N. E.	E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.			
Mean	29.681	29.630	29.665	29.657	25.69	31.35	26.50	27.41	.139	.152	.132	.139	.90	.81	.85	.85				2.5				

DAY.	Barometer at Temp. of 32°.			Temperature of the Air.			Tension of Vapour.			Humidity of the Air.			Wind.			Snow in on surf.	WEATHER.				
	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	7 A.M.	3 P.M.	10 P.M.			Mean of 24 h.			
1.	29.868	29.185	29.368	29.397	46.6°	48.2°	35.4°	41.3°	30.5	31.6	1.60	2.42	.97	.95	.78	.91	S.E. by E.	S. S. W.	N. N. W.	•	Densely overcast. Slight rain till 6 p.m. A few light efts dispersed. Gen. clear till 10 a.m. Rem. overcast.
2.	29.640	29.607	29.573	29.630	31.3	35.4	36.6	35.9	1.54	1.57	—	—	.88	.76	—	.78	S. W.	S. W. by S.	S. W. by W.	•	Clear till 10 a.m. Rem. overcast.
3.	29.720	29.956	29.961	29.898	32.1	35.3	18.6	23.7	1.82	1.19	.089	.113	.97	.90	.79	.55	W. N. W.	N. by W.	N. by E.	3.0	Gen. clear. Light clouds dispersed. Clear till 10 a.m. till 9 a.m. p.m. Slight rain till 2 p.m. till 9 a.m. p.m. Slight rain till 2 p.m. till 9 a.m. p.m.
4.	29.685	29.022	29.471	29.398	25.2	36.2	20.0	24.7	1.27	1.76	.093	.118	.98	.83	.82	.83	Cal.	W. S. W.	NW by N*	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
5.	29.712	29.685	29.650	29.659	11.4	14.2	12.3	12.1	.087	.076	.070	.073	.86	.86	.91	.90	NW by N.	Cal.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
6.	29.653	29.594	29.510	29.559	14.0	19.8	25.3	21.6	.087	.099	.130	.112	1.00	.89	.93	.92	Cal.	N. E.	N. by W.	0.2	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
7.	29.333	29.354	29.298	29.478	30.6	32.0	25.2	20.6	1.55	1.41	1.11	1.15	.93	.78	.79	.90	S. by W.	N. W.	N. by W.	2.0	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
8.	29.333	29.354	29.298	29.478	30.6	32.0	25.2	20.6	1.55	1.41	1.11	1.15	.93	.78	.79	.90	S. by W.	N. W.	N. by W.	2.0	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
9.	29.421	29.584	29.584	29.584	13.8	8.8	—	—	.079	.060	—	—	.85	.87	—	.89	N. W. 2.0	N. W. 3.0	Cal.	0.5	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
10.	30.003	30.155	30.144	30.105	11.0	1.0	6.8	4.5	.079	.045	.027	.036	.90	.90	.75	.89	N. by W.	N. by W.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
11.	29.940	29.635	29.794	29.801	9.8	22.4	21.4	18.9	.063	.109	.106	.094	.86	.87	.80	.86	S. W.	S. W. by W.	S. W.	0.1	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
12.	29.958	29.980	29.942	29.942	8.7	26.6	27.6	23.7	.066	.121	.126	.113	.94	.81	.82	.85	Cal.	S. E.	S. E.	0.1	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
13.	29.804	29.739	29.741	29.758	33.0	36.5	36.0	35.6	1.51	1.88	.194	.181	.80	.81	.92	.87	S. E. by S.	S. S. E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
14.	29.754	29.702	29.575	29.633	35.1	37.6	39.4	38.0	.200	.218	.233	.220	.95	.96	.97	.96	Cal.	N. E.	Cal.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
15.	29.360	29.442	29.764	29.539	39.0	47.0	38.7	38.0	.158	.177	1.68	.207	.97	.98	.88	.89	Cal.	Cal.	W. N. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
16.	29.986	29.897	29.775	29.805	30.1	32.5	—	—	.158	.177	—	—	.94	.96	—	.89	N. W.	S. E. by E.	S. W.	•	Gen. clear. Heavy rain till 10 & 11 p.m. Clear till 10 a.m. Slight snow.
17.	29.8																				