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THE  
MONTHLY REVIEW:  
DEVOTED TO THE  
CIVIL GOVERNMENT OF CANADA.

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Vol. I.]

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[No. VI.]

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THE CANADIAN MAGISTRACY.

WHEN the Emperor Alexander of Russia visited England in 1814, at the head of the brilliant array of the Kings and Princes of liberated Europe, after a careful examination of the working of our matchless constitution, and the happy balance preserved by it between the three estates of the realm, he expressed himself particularly struck with one important feature in the social aspect of Great Britain,—her unpaid Magistracy. At that period at least, such a body was unknown among European nations, and the enlightened Russian was loud in his praises of the wisdom that dictated the establishment of such a system, and of the palpable good effects of its operation.

By such an arrangement the country was studded as it were with an ample number of volunteer judges of right and wrong,—sworn conservators of public peace,—watchful censors of general decency and morality, and ever accessible guardians of the privileges of the rich and the liberties of the poor. In a country like England, possessed of a numerous and respectable aristocracy, there was little danger of the powers of the magistracy, except in a very few instances, being vested in dangerous, mean, or unworthy hands. Every Justice of the Peace was in his local position the representative and minister of the Head Executive of the country,—the centre and pivot in his peculiar circle round which revolved the admirable machinery of local municipal law. His powers were great, but guarded against prostitution or abuse.—

Life, property, and liberty, could run but trifling risk from his unworthiness of his high office,—in minor cases he was the judge of guilt and innocence, but an appeal lay almost always from an unrighteous decision,—in grave matters he was but the *enquirer* after delinquency,—his *punishment* was pronounced by a more solemn tribunal. In short, the greatest possible advantages were derived from the institution of the magistracy, with the least possible risk of permanent mischief resulting from the chance misconduct of any of its members.

In all countries of this vast empire to which the blessings of British institutions have been extended, the system of the unpaid magistracy has been regularly introduced. The same machinery has been set in motion, but the materials of which it is made are of a widely different nature. The English gentry possessed within themselves admirable elements for the formation of local lawgivers. In the course of the ordinary collegiate education of the sons of the upper classes, the wisdom of modern years has judiciously determined that a knowledge, even a superficial one, of the laws and constitution of this country was equally desirable and advantageous, and at many of the leading schools, and at the universities, it became no uncommon branch of the ordinary studies of the young Patrician. If destined for the Parliamentary arena, it became almost an essential. A few years of political experience gave to even the dullest tyro a strong idea of the gen-

eral scope and tendency of the great scheme of English jurisprudence, and when the politician became merged in the country gentleman, the constitutional knowledge gleaned in the stormy latitude of St. Stephens, helped to guide the Justice of the Quorum in his useful task.

But in the Colonies the case has been widely different. It is almost needless for us to remind our readers, that in them no class exists in any respect analogous to that from whose ranks the magistracy of England is selected.—A glance at the state of Upper Canada will shew the real difference at once. We speak it not with the slightest disparagement to the country we live in, and least of all to the highly respectable and respected individuals holding the Commission of the Peace. Magistrates had to be appointed, and the government had to avail itself of the only materials within its reach. The general character of the early settlers in a new country,—the description of people that attain most rapidly to property and influence, and become conspicuous in an essentially money-making community, all these things are too well known to render it necessary for us to illustrate our position by example or further assertion, when we maintain that a system which could work so admirably among a population like that of England, where ranks are strongly marked and broadly divided, might in a country like Canada be open to many objections, and susceptible of much necessary improvement. The English Justice of the Peace occupied a far different position, in relation to the rural population around him, from the Canadian. The former was generally the great man of a small community,—the 'Squire' of the village Commonwealth,—whose fathers perhaps for ages before him had borne a similar designation, and exercised similar functions.—Hence among a quiet population, a deep-rooted feeling of respect, frequently blended with affection, encircled the honoured tribunal of the magistrate, and invested his decisions and general authority with a weight and influence which materially increased his usefulness. In Canada the reverse was the case. A new township was about being filled up, settlers of all classes were thronging into it, and the Government appointed those whom it conceived most eligible from information and position to the Commission of the Peace. But in the exercise of their functions they experienced

much difficulty. They were almost perfect strangers to the people over whom they were invested with local authority. They had not the advantage of rank, wealth, or the recollections of ancient descent to raise them in the estimation of their neighbours; they had generally to follow the same occupations, and but small respect, and less moral influence did they naturally enjoy. We recollect the Arch-Rebel Mackenzie, in one of his grievance-hunting productions, making us smile at one of his assertions, which we believe was not wholly destitute of truth,—that in one township settled in Lord Seaton's time, there were *fourteen horses, and fifteen magistrates*. A speaking illustration of the social position of a new country.

Although Canada can be advantageously compared with most other countries as to the frequency of crime, yet it cannot be a matter of wonder to find that her present establishment of police and magistracy is wholly inadequate even to the wants of her thinly peopled country. In England, it was soon perceived, that if an active and rigid maintenance of the law were required, the system of unpaid magistrates must be materially modified. It is a maxim well understood in most countries, that *if you want any thing well done you must pay for it*. In large towns it was at once obvious that a police force must be regularly organized, and officers armed with proper authority must be paid to direct and command it. In densely populated parts of the country also, it was deemed advisable that a *stipendiary* magistrate should be always within reach,—a regularly paid official, whose duty it was to be ever on the alert to detect and prevent if possible the occurrence of crime. England, Ireland, and Scotland, are now fully furnished with stipendiaries, and never was money better expended than in keeping up such indispensable guardians of the public peace. In the large towns, police magistrates with adequate salaries sit daily for the regular dispatch of business, and can be found at all hours, and at the shortest notice, should their aid be suddenly required. Did the peace of the community depend on the voluntary assistance or activity of the unpaid magistracy, our old country cities would present a hideous spectacle of unbridled vice and hourly occurring disturbance. We believe no force is so efficient as the London police, and none is so unobtru-

sive, or of so little trouble to the inhabitants generally; the extension of the same system to other cities has been invariably attended with the same beneficial results.

Let us glance for an instant at the position of a large city community where the police force is wholly inadequate to the wants, or rather the vices, of a mixed society.

In the Havannah, for example, the most frightful license was allowed to all kinds of crime and laxity of principle. Assassinations were of nightly and hourly occurrence. The arrival of Governor Tacon was an era never to be forgotten in its annals. This celebrated man at once determined to check the unbridled insolence of the infringers of the law, and established a rigorous and active system of police, and in a short time, and after a few startling examples of necessary severity, order and peace were thoroughly restored, and Havannah, from being a Pandemonium, became as quiet and orderly as an English city.

But it is useless to attempt to multiply instances of the vast changes effected in thickly peopled communities by the introduction of an active, *well-paid* police establishment, for the fact is too notorious to need argument or illustration.

Let us now turn to Canada, and ask whether some modification of the present system is not peremptorily required. We understand that Lord Sydenham has introduced into Montreal and Quebec Stipendiary Magistrates and a police force. But as yet such functionaries are unknown either in the Upper Canadian towns, or the country generally. We know that the expense necessary for the establishment and maintenance of such a force, is considered a strong objection to its creation. We may also be told that the circumstances of the country do not require it, and that the public peace is sufficiently preserved, and public justice sufficiently vindicated as things now are.

We will take the last objection first. In the event of any breach of the peace occurring, or being apprehended throughout the country, or even in one of our towns, the inadequacy of the magistracy, either for the prevention of anticipated violence, or the apprehension of those guilty of its committal, becomes at once apparent. Suppose a murder to be committed in a distant township, and the fact proved by the

oath of credible witnesses; how is the magistrate's warrant for the apprehension of the guilty party to be enforced?—to whom is that functionary to hand it for execution? Will the neighbours, seized with a sudden zeal for the vindication of the laws, arm themselves in haste, and troop off to scour the forests, swamps, and shanties, to seize and bring to the district gaol, perhaps some fifty miles off, some criminal rendered desperate by the consciousness of guilt, and determined to sell his freedom as dearly as possible? We doubt much if the love of justice will prompt many of our fellow-subjects to such exertions for the detection and punishment of crime. Suppose a disturbance to take place in a town, and riotous proceedings endangering or affecting life and property; where is the well appointed police force ready at the summons of an *active and thoroughly responsible* magistracy, to put down tumult, and drag off the ringleaders to imprisonment and punishment? Well may echo answer—where?

We may be said to be supposing extreme or improbable cases. Are our readers aware that a cold-blooded and unprovoked murder was committed a few weeks since at the Durham Election, under the very eyes of the Returning Officer in the open day, and in sight of hundreds? Where is the perpetrator of that savage act? In the gaol of the Newcastle District, awaiting the punishment of his transgression? No. He is well known,—he is a resident of Cavan, a populous township, where magistrates abound, and yet he is abroad in the country, and to the best of our belief no attempt has yet been made to seize him. Could such things be in any country where there existed a Stipendiary Magistrate, whose duty it was to take care that the infringer of the law should if possible be apprehended, and who would be responsible to Government for a breach or neglect of duty?

Let us now look at the towns. The City of Toronto has recently been disgraced by the occurrence of a riot in which human life has been lost, and an unmeasured quantity of ill-feeling engendered in the minds of the community.—We have not now either the wish or the intention of attacking individual character, or assailing political opponents. No one can more deeply regret the occurrence of such melancholy scenes than we do, and we speak of these unhappy details with far more of sorrow than of

anger. It matters but little to our argument which political party was to blame, or who commenced the assault: suffice it to say, that riotous proceedings did take place, and human blood was shed. We here state our solemn and deliberate conviction, that had the police establishment of this city been on a different footing, those unfortunate proceedings would never have taken place. It required but little divination to foresee that on such an occasion, after a bitterly contested election, disturbance *might* take place. A procession was expected to pass down the principal street, and long before its appearance a body of men was observed collecting at a central point, many of them armed with sticks, and decorated with adverse party colors, evidently awaiting its arrival with no friendly intentions. What would have been done under such circumstances had we possessed two or three regularly paid and responsible public magistrates, always at their post, and whose duty required them to exercise the fullest possible diligence on the slightest apprehension of disorder? Measures would instantly have been taken to ensure a free passage to the intended procession. Constables would have been stationed at proper places, and the peaceable and right-minded portion of the citizens would have been called on to aid the arm of the law in preventing the possibility of collision between the adverse parties. Nothing, we advisedly assert, would have been easier, than by active and judicious interference and remonstrance to have prevented the attack commenced on the procession in King Street, which was the origin of the subsequent riot and bloodshed. It is needless to allege that all those instrumental in the loss of life are either in custody or on bail,—that justice will be effectually vindicated, &c. We contend that under a proper police establishment the riot never would have happened, and that it is small consolation to the community that the guilty parties will certainly be made to answer for their misdeeds, when we know that with different management, occurrences of a nature so truly lamentable and degrading to the character of Toronto, would have been completely averted. How then is an evil of such magnitude to be remedied? We conceive the first step must be a repeal or modification of the act of incorporation. In a city like Toronto, with a population of 13,000 souls, of all countries, politics,

and religions, we would humbly suggest there ought to be three, or at least two police magistrates appointed by the Government, removable at pleasure, and fairly remunerated, at salaries say of three hundred pounds a year each. A Recorder should also be appointed to preside at the City Criminal Court, being of course a lawyer. To save expence, an intelligent Barrister could easily fill both the offices of Recorder and District Court Judge, receiving a moderate salary in lieu of all fees or perquisites. These functionaries would devote their whole time if necessary to police matters—they should be tolerably well skilled in legal points, and capable of deciding in all the matters brought under their notice. They would transact all the police business of the city,—command the force of constables which it would be found necessary to maintain,—and be ever on the spot to receive information of apprehended riot, and to detect and bring to justice all breakers of the peace. Toronto should still have its Aldermen and Common Councilmen to meet in Council, and decide on all financial and general business. But immediately on being relieved from attendance and imperfect performance of all the petty police matters, the most worthy and influential inhabitants of the City would be found willing to accept seats in the Corporation. At present few persons can be found, possessing the requisite qualifications for such duties, willing to encounter the fatigue and unpleasant trouble of sitting two or three hours a day to hear petty cases of assault and battery, tavern rows, midnight robberies, stolen watches, and picked pockets. The man of business can with difficulty spare the time,—and even those who have sufficient leisure to devote to the duties of the magistracy would shrink back from the unpleasing task of presiding on the police bench.

Appoint Stipendiary Magistrates for these duties, and the Aldermen of the city can be selected from its first inhabitants, who although unwilling to encounter the daily drudgery of the Stipendiaries, will be ready to lend their aid and attention to the arrangement of the general affairs of the city.

*There is one other light in which the magistracy may be regarded, viz. as public accountants*—which they became by being directed by statute and otherwise to enforce, receive, and pay over to the Receiver General, or to certain

local functionaries, fines of different kinds. It has been alleged, and not we believe without some foundation, that great irregularities had naturally crept into a system so thoroughly defective; but on this head we would beg to conclude these imperfect remarks by a short extract from one of the reports of the Commissions of Inquiry appointed by Sir Geo. Arthur.

**"MAGISTRATES RETURNS.**—It is much to be feared that great irregularity has prevailed in the levying and paying over to the public use of this part of the revenue. In an extensive and thinly settled country, it is most difficult to ensure the constant superintendance of an active correcting power over the ill-kept accounts of such an unorganized body as the Provincial Magistracy, whom the enactments of statutes have converted into public accountants. They are directed to pay over monies collected to the Receiver General, but it is needless to remark on the latitude allowed to the will and pleasure of the parties themselves by the apparent absence of any inspecting and coercive power, by the intervention of which laxity might be prevented, and default, if existing, be discovered and punished.

"The committee is induced strongly to prefer

the adoption of some system by which the Justice of the Peace would cease altogether to be a Public Accountant, as it is needless in the present social position of the Province to expect unerring regularity and exactness in his accounts while his situation is (or at least ought to be) merely honorary, and not designed as a source of positive emolument.

"With respect to fines, penalties, &c. now collected by the Justices, a new system might be adopted, by which either the District Inspector, or some other regularly paid officer, from whom security is required, might become the sole Receiver of monies arising from sentences of Magistrates. Thus, on a fine or penalty being imposed by a Justice or Justices, he or they might notify the Inspector, or Stipendiary Magistrate (if such an officer were created) for that section of the country, of the particulars of the fine so imposed,—and that functionary under the direction of the magistrate might then be empowered to proceed to levy the same, and thus become the Receiver and responsible Accountant for all the money collected under the warrants of Justices of the Peace, in place of there being a number of accountants difficult to be checked or controlled scattered over the country."

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## ROADS.

We have already published several useful papers on the improvement of the roads, and the importance of the subject induces us to continue it. In this new country there is nothing that is so intimately connected with its prosperity as the improvement of roads, and the correct principles of road-making should be diffused as widely as possible, as most of the roads are necessarily managed by men who know but little of the matter. The principles here laid down are applicable to all roads, more or less, whether they are macadamized or not; and if our path-masters and road-overseers would but act on these plans, so far as they apply, the common roads would soon be greatly improved.

The following papers on road-making were

addressed to a Committee of the Assembly on Turnpike Trusts, and they convey very useful information on the subject. The first paper is by Mr. Thos. Roy, Civil Engineer:—

### ON THE CONSTRUCTION OF ROADS.

#### *Laying out a Road.*

Roads ought to be carried along a level line as nearly as possible, and only having gentle acclivities and declivities; for a greater distance on a road nearly level, is productive of less expense of animal strength than a lesser distance passing over considerable elevations.

The following tables, the general results of experiments, and drawn from approved formula, will render this manifest:—

TABLE I.

*Force of Traction required on various inclinations of Road—load 25 cwt, velocity two and a half miles per hour.*

<i>Rate of Inclination.</i>	<i>Force required.</i>
Level.....	115 lbs.
1 in 600.....	120 "
1 in 57.....	140 "
1 in 40.....	164 "
1 in 29.....	200 "
1 in 26.....	218 "
1 in 19.....	300 "
1 in 14½.....	400 "
1 in 11½.....	500 "
1 in 8½.....	700 "
1 in 7¾ ultimum of Traction.....	800 "

TABLE II.

*A Horse can exert the following moving forces at different velocities for six hours per day.*

<i>Miles per hour.</i>	<i>Strong Horse.</i>	<i>Ordinary Horse.</i>
2.....	169 lbs.	100 lbs.
2½.....	156 "	90 "
3.....	144 "	81 "
3½.....	132 "	72 "
4.....	121 "	64 "
5.....	100 "	49 "
6.....	81 "	36 "
7.....	64 "	25 "
8.....	49 "	16 "
9.....	36 "	9 "

By the Woburn experiments the mean force exerted by 144 horses in 52 teams, was 163 lbs each horse—inclination and velocity not given, force exerted by a strong horse, at a dead pull, 480 lbs.

From the above tables it is manifest, that a moderately strong horse can draw 25 cwt. on a nearly level road, but upon inclinations exceeding 1 in 40, such a load is beyond his strength for any considerable distance. However, if the inclination is short, he will be able by considerable exertion to draw this load on an inclination of 1 in 26—but upon an inclination of 1 in 14½, it is beyond the strength of an ordinary horse at a dead pull. These deductions assume the road to be firm and wrought into true inclinations; where the roads are loose and ill-formed, the required force of traction is greatly increased.

#### *Proper form of a Road.*

After a proper location for the road has been established, the ground should be carefully levelled and levelling stakes placed at every hundred feet distance. Sections of it should be made, and the whole laid out into true levels or inclinations as the case may be. This will

not only facilitate the future operations, but will also tend to lessen the expense; for it will prevent all improper excavations or embankments from being done. The metal bed is then to be formed, and the soil to be carefully drained, which is an operation of great consequence and requires much skill to execute it properly. The metal bed should be levelled transversely, and made as firm as possible. The metal should be so laid as to render it impervious to water. This can only be effected by laying it on in thin layers and giving each layer time to be settled by the action of the wheels before the next in succession is laid on. The first layer should be about five inches thick, quite level, and be well pressed down upon the metal bed, and consolidated before the next layer is put on, so as to form a species of concrete bottoming for the road. Should the road be narrow and the traffic light, another layer of five inches average thickness will form a good road; but if the road is wide and the traffic heavy, it will require two more layers of four inches each, which form a road strong enough for any situation. The form of the surface of the road when finished, ought to be the segment of a circle, radius eight hundred feet. If the width of the metal or the chord be 16 feet,

the versine or rise should be  $2\frac{1}{2}$  inches nearly. Thus, if an average of 10 inches of metal is to be given, the thickness at the edges should be  $8\frac{3}{4}$  inches, and at the middle it should be  $11\frac{1}{4}$  inches. This curve is quite sufficient to drain off the water, and it is strictly in accordance with the required strength of the road at the centre and at the sides,—for by observation it is found that on a road much used by wagons, the waste is in the following proportions:

Action of the atmosphere.....	20 per cent.
Carriage wheels.....	35 “
Horses' feet.....	45 “

Therefore, if the atmospheric action is equal over the breadth of the road, and the action of the horses' feet being most frequently on or near the centre, it follows that the centre ought to be stronger than the edges, in the proportion of 7 to 9. Hollow arching of the materials ought to be carefully guarded against; for a percolation of water from the surface will take place wherever it exists. This hollow arching cannot be avoided when the full thickness of the metal is put on at once; therefore it ought never to be done. Covering the surface of the road with loose materials such as gravel or sand, has a still more pernicious effect. It forever prevents the angles of the stones from combining, and a road so used must ever remain hollow underneath.

It has been found on roads where great traffic exists, that if they are made of clean hard broken stones placed on a firm foundation, and rendered impervious to water, and sufficiently strong not to yield under the pressure of the wheels, the wear is about one inch in thickness per annum—but on weak ill-drained roads, pervious to water, and yielding under the pressure of the wheels, the wear of materials has been as much as 4 inches per annum.

The size of the broken stone ought to bear a proportion to the hardness of the material used.

One and a half inch Cubes of Aberdeen Granite are compressed by a weight of.....	25,536 lbs.
Peterhead Granite.....	18,656 “
Cornish Granite.....	14,302 “
Purbeck Limestone.....	20,610 “
Compact Sandstone.....	15,560 “

It follows if  $1\frac{1}{2}$  inch Cubes of Aberdeen Granite is a proper size,  $2\frac{1}{2}$  inch Cubes of compact Sandstone (the material chiefly used in this country) would be equivalent to resist the same pressure.  $2\frac{1}{2}$  inches is too large, but certainly upon every sound principle, the softer stone ought not to be broken so small as the harder.

Having briefly traced the outlines of the formation and construction of a well-made road, we shall endeavour to examine how far the roads lately made in the Home District are conformable to sound principles of road-making,

and in so doing shall take each road in succession.

Yonge Street road was the first experiment. It is not necessary here to enquire into the justice or injustice of the much-agitated question about the expense of that small portion of road made during the first season. It is enough to say that expense was not spared. The road was formed of a greater breadth than has been done since; the metal was laid on thicker, and an expensive, but injudicious system of drainage was adopted. Unfortunately, those adaptations which science has supplied to the art of road-making, were totally disregarded, and a low standard of action was placed before the public. In future seasons this has not been remedied, it is even worse. The road has been carried forward in a nearly straight line, regardless of the expense of animal strength which the Commissioners were entailing upon the public, and heedless of the certainty that in a few years, if the Province prospered, the steep inclinations which they were forming, would be altered at an expense probably as great as the first cost. The proceedings at Gallows' Hill, and at Hogg's Hollow, will fully justify these remarks. I shall confine myself to the latter of these. An excellent line of road, with an inclination of about 1 in 30 on each side of the ravine, could have been obtained at a moderate expense. Instead of adopting this line, the road was carried right across the ravine; the inclinations are not regular; at the steepest parts they are almost 1 in 14. The principle of action appears to have been to reverse the geometrical truth,—lessen the inclination by increasing the distance; for the distance was lessened in order to increase the inclination. The consequence is, that if Yonge Street road had been properly laid out, a regular descent could, with three or four exceptions, have been obtained from the oak ridges to Toronto, and one horse could have drawn in a ton weight of produce to the city; but Hogg's Hollow, and one or two other mismanaged places intervene, and it is absolutely necessary to employ two horses to bring in a ton of produce, instead of one horse,—a tax upon every individual who lives to the northward of the hollow, far heavier than both the tolls upon the road, besides having toll to pay for two horses instead of one, into the bargain.

The metal bed is badly formed—the inclinations irregular, resembling the section No. 2,—the metal laid on in masses, and imperfectly consolidated—drainage seems to have been neglected, or not understood—and the road is breaking up.

Some further remarks are then made on the West and East Toronto Roads, showing the errors committed in their construction.

This paper is followed by one stating that roads must be made perfectly dry in the first



instance, just as a wise man would prepare a solid foundation for his house; and that due regard must be had to the action and reaction of springs, as well as of surface water. Another paper is then given by Mr. Charles Green, of Cobourg, stating the process pursued in England in making a road over swampy ground, as follows:—

I do not profess to be scientific in the process of macadamization, but, with your permission, I will state what I have seen done in England on one of the principal thoroughfares into London,—the entrance from the South and East.

This piece of road over a space of five miles, was, within my recollection, one of the worst of the great thoroughfares, and I have witnessed many serious accidents therefrom.—The ground low and swampy the whole distance, reclaimed by embankments and ditches.

The process that I saw adopted, was the removal of the upper stratum to the depth of eighteen inches or two feet, then laying down bavins or faggots packed close, endwise across the road, to the depth of two feet more or less, to preserve the level as near as possible, but at all events to avoid holes or undulations of ground that would favour a lodgment of water,—the superstratum before removed, was thrown over the bavins, and found its way in the interstices of the bavins. It is fit to observe that this soil was of a sandy description, and from its non-adhesive quality, more readily deposited itself,—over this again was thrown common gravel, six to eight inches thick, which formed the road for use. The traffic soon solidified the whole,—wherever any part of the earth-covering sunk, the injury was repaired in dry weather with gravel. The convexity of the road was slight, the ditches were carefully kept in repair, to receive the water, and the road from being one of the worst, became one of the best around London.

It was after the formation of this road that Mr. McAdam commenced his system in England; the value of which appears to consist in

creating ample drains for water, the removal of trees from the road sides, where they would interrupt the action of the sun and wind; and the upper layer of his road to consist of stones broken to about two inches square, thus preserving angular pieces instead of round; the former having the greater tendency to hang together and solidify, than round substances.

The principal object to which I take the liberty of directing your attention, is the foundation, which, in the formation of the road above referred to, consisted of *Bavins* and *Faggots*. The opportunities afforded in this Province for so conducting the work of road-making, hold out a prospect of effecting this object to the greatest advantage, and with the best probable results, and I am persuaded from what I have witnessed on the road above referred to, where the traffic is so immense, that the plan would succeed well here.

I have often seen in this Province an attempt to repair roads, by casting loose brush on the road, and covering loosely with earth, a practise to be altogether condemned as useless. I presume I need hardly state that *Bavins* consist of sound twigs and brushwood, the thickness of a finger, bound up close and compact with wuhy, and a strong stake driven through the middle to keep them firm. I humbly conceive that *Bavins* are much superior to trunks of trees, because they will interlace and support each other, which the trees cannot do. Arguing from analogy, Mr. McAdam broke large stones into small pieces, in order that he might obtain a material that would unite, or more properly speaking, bind. I am not prepared to state what would be the expense of preparing the *Bavins*, but there must be many persons here who pursued the occupation of wood-cutting in England, and could give an accurate estimate of the cost.

I will close my remarks by stating that the Dover Road, to which I have made such particular reference, is considered one of the best around London. Its foundation has not been disturbed since its formation, at the division I have described, nor has it perceptibly given way.

## THE ENGLISH LANGUAGE.

FRENCH and English literature, which have now been in a high state of activity for two entire centuries, and perhaps as nearly as possible have been subject to the same allowance for lulls arising out of civil agitations, cannot reasonably be supposed to have left any nook or sly recess in the broad field of national interest at this day unvisited. Long after the main highway of waters has felt the full power of the tide, channels running far inland, with thousands of little collateral creeks, may be still under the very process of filling; for two powers are required to those final effects of the tide;—the general hydrostatic power for maintaining the equilibrium, and also hydraulic power for searching narrow conduits. On the same analogy, many human interests, less obvious or less general, may long linger unnoticed, and survive for a time the widest expansion of intellectual activity. Possibly the aspects of society must shift materially before even the human consciousness, far less a human interest of curiosity, settles upon them with steadiness enough to light up and vivify their relations.—For example—odd as it may seem to us, it is certain that, in the Elizabethan age, Political Economy was not yet viewed by any mind—no, not by Lord Bacon's—as even a *possible* mode of speculation. The whole accidents of value and its functions, were not as yet separated into a distinct conscious object; nor, if they had been, would it have been supposed possible to trace laws and fixed relations amongst forms apparently so impalpable, and combinations so fleeting. With the growth of society, gradually the same phenomena revolved more and more frequently; something like order and connection was dimly descried; philosophic suspicion began to stir; observation was steadily applied; reasoning and disputation ran their circle; and at last a science was matured—definite as mechanics, though (like *that*) narrow in its elementary laws.

Thus it is with *all* topics of general interest. Through several generations they may escape notice; for there must be an interest of social necessity visibly connected with them before a mere vagrant curiosity will attract culture to their laws. And this interest may fail to arise until society has been made to move through various changes, and human needs have assumed attitudes too commanding and too permanent to be neglected. The laws of the drama—that is, of the dramatic fable—how subtle are they! How imperceptible—how absolutely non-existences—in any rude state of society! But let a national theatre arise—let the mighty artist come forward to shake men's hearts with

scenic agitations,—how inevitably are these laws brightened to the apprehension, searched, probed, analyzed. *Sint Mæcenates*, it has been said, *non decrunt (Fluice) Marones*. That may be doubted; and nearer to the probabilities it would be to invert the order of succession.—But however this may be, it is certain from manifold experience, that invariably there will follow on the very traces and fresh footing of the mighty agent—(mighty, but possibly blind)—the sagacious theorist of his functions—in the very wake and visible path of the awful Æschylus, or the tear-compelling Euripides, producing their colossal effects in alliance with dark forces slumbering in human nature, will step forth the torch-bearing Aristotle, that pure starry intelligence, bent upon searching into those effects, and measuring (when possible) those forces. The same age accordingly beheld the first pompous exhibitions of dramatic power, which beheld also the great speculator arise to trace its limits, proportions, and the parts of its shadowy empire. “I came, I saw, I conquered”—such might have been Aristotle's vaunt in reviewing his own analysis of the Athenian drama—one generation, or nearly so, having witnessed the creation of the Grecian theatre as a fact, and the finest contemplative survey which has yet been taken of the same, fact viewed as a problem; of the dramatic laws, functions, powers, and limits.

No great number of generations, therefore, is requisite for the exhaustion of all capital interests in their capital aspects. And it may be presumed, with tolerable certainty, that by this time the plough has turned up every angle of soil, properly national, alike in England or in France. Not that many parts will not need to be tilled over again, and often absolutely *de novo*. Much of what has been done has been done so ill that it is as if it had not been done at all. For instance—the history of neither kingdom has yet been written in a way to last, or in a way worthy of the subject. Either it has been slightly written as to research—witness Huine and Mezeriaz, Smollett and Pere Daniel—(not but some of these writers lay claim to antiquarian merits)—or written inartificially or feebly as regards effect—or written without knowledge as regards the political forces which moved underground at the great eras of our national development.

Still, after one fashion or another, almost every great theme has received its treatment in both English literature and French; though many are those on which, in the words of the German adage upon psychology, we may truly affirm that “the first sensible word is yet to be

spoken." The soil is not absolutely a virgin soil; the mine is not absolutely unworked; although the main body of the precious ore is yet to be extracted.

Meantime, one capital subject there is, and a domestic subject besides, on which, strange to say, neither nation has thought fit to raise any monument of learning and patriotism. Rich, at several eras, in all kinds of learning, neither England nor France has any great work to shew upon her own vernacular language. *Res est in integro*; no Hickes in England, no Malesherbes or Menage in France, has chosen to connect his own glory with the investigation and history of his native tongue. And yet each language has brilliant merits of a very different order; and we speak thoughtfully when we say that, confining ourselves to our own, the most learned work which the circumstances of any known or obvious case allow, the work which presupposes the amplest accomplishments of judgment and enormous erudition, would be a history of the English Language from its earliest rudiments, through all the periods of its growth to its stationary condition. Great rivers, as they advance and receive vast tributary influxes, change their direction, their character, their very name; and the pompous inland sea, bearing navies on its bosom, has had leisure through a thousand leagues of meandering utterly to forget and disown the rocky mountain bed and the violent rapids which made its infant state unfitted to bear even the light canoe. The analogy is striking between this case and that of the English language. In its elementary period it takes a different name—that of the Anglo-Saxon; and so rude was it and barren at one stage of this rudimental form, that in the *Saxon Chronicle* we find not more than a few hundred words—perhaps from six to eight hundred words—perpetually revolving, and most of which express some idea in close relation to the state of war. The narrow purposes of the *Chronicles* may, in part, it is true, have determined the narrow choice of words; but it is certain, on the other hand, that the scanty vocabulary which then existed, mainly determined the limited range of his purposes. It is remarkable, also, that the idiomatic forms and phrases are as scanty in this ancient *Chronicle*, as the ideas, the images, and the logical forms of connection or transition. Such is the shallow brook or rivulet of our language in its infant stage. Thence it devolves a stream continually enlarging, down to the Norman era; through five centuries (commencing with the century of Bede) used as the vernacular idiom for the intercourse of life by a nation expanding gradually under the ripening influence of a pure religion and a wise jurisprudence; benefiting besides, by the culture it received from a large succession of learned ecclesiastics, who too often adopted the Latin for the vehicle of their literary commerce with the Continent, but also

in cases past all numbering wrote (like the great patriot Alfred) for popular purposes in Saxon—even this rude dialect grew and widened its foundations, until it became adequate to general intellectual purposes. Still, even in this improved state it would have been found incommensurate to its great destiny. It could not have been an organ corresponding to the grandeur of those intellects which, in the fullness of time, were to communicate with mankind in oracles of truth or of power. It could not have afforded moulds ample enough for receiving that vast literature which, in less than another five hundred years, was beginning to well forth from the national genius.

Hence, at the very first entrance upon this interesting theme, we stumble upon what we may now understand to have been the blindest of human follies—the peculiar, and without exaggeration, we may say, the providential felicity of the English language has been made its capital reproach—that whilst yet ductile and capable of new impressions, it received a fresh and large infusion of alien wealth. It is, say the imbecile, a “bastard” language—a “hybrid” language—and so forth. And thus, for a metaphor, for a name, for a sound, they overlook, as far as depends on *their* will—they sign away—the main prerogative and dowry of their mother tongue. It is time to have done with these follies. Let us open our eyes to our own advantages. Let us recognize with thankfulness that fortunate inheritance of collateral wealth, which by inoculating our Anglo-Saxon stem with the mixed dialect of Neustria, laid open an avenue mediately through which the whole opulence of Roman, and ultimately of Grecian thought, plays freely through the pulses of our native English. Most fortunately the Saxon language was yet plastic and unfrozen at the era of the Norman invasion. The language was thrown again into the crucible, and new elements were intermingled with its own brought into a state of fusion. And this final process it was, making the language at once rich in matter and malleable in form, which created that composite and melt-form speech—fitted, like a mirror, to reflect the thoughts of the myriad-nuded Shakspeare, and yet at the same time with enough remaining of its old forest stamina for imparting a masculine depth to the sublimities of Milton, or the Hebrew prophets, and a patriarchal simplicity to the Historic Scriptures.

Such being the value, such the slow development of our noble language, through a period of more than twice six hundred years, how strange it must be thought, that not only we possess at this day no history, no circumstantial annals, of its growth and condition at different eras—a defect which even the German literature of our language has partially supplied; but that, with one solitary exception, no eminent scholar has applied himself even to a sin-

gle function of this elaborate service. The solitary exception, we need scarcely say, points to Dr. Johnson, whose merits and whose demerits, whose qualifications and disqualifications, for a task of this nature, are now too notorious to require any illustration from us. The slenderness of Dr. Johnson's philological attainments, and his blank ignorance of that particular philology which the case particularly required—the philology of the Northern languages—are as much matters of record, and as undeniable as, in the opposite scale, are his logical skill, his curious felicity of distinction, and his masculine vigor of definition. Working under, or over, a commission of men more learned than himself, he would have been the ablest of agents for digesting and organizing their materials. To *inform*, or invest with *form*, in the sense of logicians—in other words, to impress the sense and trace the presence of principles—that was Dr. Johnson's peculiar province; but to assign the *matter*, whether that consisted in originating the elements of thought, or in gathering the affinities of languages, was suited neither to his nature nor to his habits of study. And of necessity, therefore, his famous Dictionary is a monument of powers unequally yoked together in one task—skill in one function of his duty, “full ten times as much as there needs”—skill in others, sometimes feeble, sometimes none at all.

Of inferior attempts to illustrate the language we have Ben. Johnson's Grammar, early in the seventeenth century; Wallis, the mathematician's Grammar, (written in Latin, and patriotically designed as a polemic Grammar against the errors of foreigners) towards the end of the same century; Bishop Lowth's little School Grammar, in the eighteenth century; Archdeacon Nare's Orthoepy; Dr. Crombie's Etymology and Syntax; Noah Webster's various Essays on the same subject, followed by his elaborate Dictionary, all written and first published in America. We have also, and we mention it on account of its great but unmerited popularity, the Grammar of Lindley Murray,—an American, by the way, as well as the eccentric Noah. This book, full of atrocious blunders, (some of which, but with little systematic learning, were exposed in a work of the late Mr. Hazlitt's) reigns despotically through the ladies' schools, from the Orkney's to the Cornish Scillys. And of the other critical Grammars, such as the huge quarto of Green, the smaller one of Dr. Priestly, many little abstracts prefixed to portable Dictionaries, &c., there may be gathered, since the year 1680, from 250 to 300; not one of which is absolutely without value—some raising new and curious questions, others showing their talents in solving old ones. Add to these the occasional notices of grammatical niceties in the critical editions of our old poets, and there we

have the total amount of what has hitherto been contributed towards the investigation of our English Language in its grammatical theory. As to the investigation of its history, of its gradual rise and progress, and its relations to neighbouring languages, that is a total blank—a title pointing to a duty absolutely in arrear, rather than to any performance ever undertaken as yet, even by way of tentative essay. At least, any fractional attempt in that direction is such as would barely form a single section, or sub-section, in a general history. For instance, we have critical essays of some value on the successive translations, into English, of the Bible. But these rather express, *in modula parvo*, the burden of laborious research which awaits such a task, pursued comprehensively, than merely diminish it. Even the history of *Slang*; whether of domestic or foreign growth, and the record of the capricious influxes, at particular epochs, from the Spanish, the French, &c., would furnish materials for a separate work. But we forbear to enter upon the long list of parts, chapters, and sections, which must compose the architectural system of so elaborate a work, seeing that the whole edifice itself is hitherto a great idea, *in nubibus*, as regards our own language. The French, as we have observed, have little more to boast of. And, in fact, the Germans and the Italians, of all nations the two who most cordially hate and despise each other, in this point agree,—that they only have constructed many preparatory works—have reared something more than mere scaffolding towards such a systematic and national monument.

I. It is painful and humiliating to an Englishman, that, while all other nations show their patriotism severally in connection with their own separate mother tongues, claiming for them often merits which they have not, and overlooking none of those which they have, his own countrymen shew themselves ever ready, with a dishonourable levity, to undervalue the English language, and always upon no fixed principles. Nothing to ourselves seems so remarkable, as that men should dogmatize upon the pretensions of this and that language in particular, without having any general notions previously of what it is that constitutes the value of a language universally. Without some preliminary notice, abstractedly, of the precise qualities to be sought for in a language, how are we to know how the main object of our question is found, or not found, in any given language offered for examination? The Castilian is pronounced fine, the Italian effeminate, the English harsh, by many a man who has no shadow of a reason for his opinions beyond some vague association of chivalresque qualities with the personal bearing of Spaniards; or, again, of special adaptation to operatic music in the Italian; or, as regards the English, because he

has heard, perhaps, that the letter *s*. and crowded clusters of consonants and monosyllabic words prevail in it.

Such random and fantastic notions would be entitled to little attention; but, unfortunately, we find that men of distinguished genius—men who have contributed to sustain and extend the glory of this very English language, are sometimes among its notorious depreciators. Addison, in a well-known passage of his critical essays, calls the English, in competition with the Greek language, brick against marble.—Now, that there is a vocal beauty in the Greek, which raises it in that particular point above all modern languages, and not exclusively above the English, cannot be denied; but this is the lowest merit of a language—being merely its *sensuous* merit (to borrow a word of Milton's;) and, beyond all doubt, as respects the higher or intellectual qualities of a language, the English greatly excels the Greek, and especially in that very case which provoked the remark of Addison; for it happens, that some leading ideas in the "Paradise Lost"—ideas essential to the very integrity of the fable, cannot be expressed in Greek; or not so expressed as to convey the same thought impregnated with the same weight of passion. But let not our reverence for the exquisite humor of Addison, and his admirable delicacy of pencil in delineating the traits of character, hide from us the fact that he was a very thoughtless and irreflective critic; that his criticisms, when just, rested not upon principles, but upon mere fineness of tact; that he was an absolute ignoramus as regarded the literature of his own country; and that he was a mere bigot as regarded the antique literature of Pagan Greece or Rome. In fact, the eternal and inevitable schism between the *Romanticists* and the *Classicists*, though not in name, had already commenced in substance; and where Milton was not free from grievous error and consequent injustice, both to the writers of his country and to the language, how could it be expected that the far feeblér mind of Addison should work itself clear of a bigotry and narrowness of sympathy as regards the antique, which the discipline and training of his whole life had established? Even the merit of Addison is not sufficient to waive his liability to one plain retort from an offended Englishman, viz: that, before he signed away with such flagrant levity the pretensions of his native language, at all events, it was incumbent upon him to shew that he had fathomed the powers of that language, had exhausted its capacity, and had wielded it with commanding effect. Whereas, we all know that Addison was a master of the humble and unpretending English demanded, or even suffered by his themes; but for that very reason little familiar with its higher or impassioned movements.

II. But Addison, like most other critics on languages, overlooked one great truth, which

should have made such sweeping undervaluations impossible as applied to any language:—this truth is, that every language, every language at least in a state of culture and development, has its own separate and incommunicable qualities of superiority. The French itself which, in some weighty respects, is among the poorest of languages, has yet its own peculiar merits, not attainable or approachable by any other. For the whole purposes of what the French understand by the word *causer*, for all the delicacies of social intercourse, and the *nuances* of manners, no language *but* the French possesses the requisite vocabulary. The word *causer* itself is an illustration. Marivaux and other novelists, tedious enough otherwise, are mere repertoires of phrases untranslatable—irrepresentable by equivalents in any European language. And some of our own fashionable English novels, which have been fiercely arraigned for their French embroidery as well as for other supposed faults, are thus far justifiable—that, in a majority of instances, the English could not have furnished a corresponding phrase with equal point or piquancy—sometimes not at all.

III. If even the French has its function of superiority, so, and in a higher sense, have the English and other languages more decidedly northern. But the English, in particular, has a special dowry of power in its double-headed origin. The Saxon part of the language fulfils one set of functions, the Latin another. Meantime, it is a great error on the part of Lord Brougham (and we remember the same error in others) to direct the student in his choice of words toward the Saxon part of the language by preference. Nothing can be more unphilosophic, or built on more thorough misconception of the case. Neither part of the language is good or bad absolutely, but in its relation to the subject, and according to the treatment which the subject is meant to receive. It is an error even to say that the Saxon part is more advantageously used for cases of passion.—Even that requires further limitation. Simple narration, and a pathos resting upon artless circumstances,—elementary feelings,—homely and household affections—these are most suitably managed by the old indigenous Saxon vocabulary. But a passion which rises into grandeur, which is complex, elaborate, and interveined with high meditative feelings, would languish or absolutely hulk, without aid from the Latin moiety of our language. Mr. Coleridge remarks, that the writings of all reflective or highly subjective poets, overflow with Latin and Greek polysyllables, or what the uneducated term "dictionary words."

IV. Again, if there is no such thing in *rerum natura* as a language radically and universally without specific powers; if every language, in short, is and must be, according to the circumstances under which it is moulded, an organ,

*sui generis*, and fitted to sustain with effect some function or other of the human intellect,—so, on the other hand, the very advantages of a language, those which are most vaunted, become defects under opposite relations. The power of running easily into composition, for instance, on which the Germans show so much *fierte*, when stating the pretensions of their own mother tongue, is in itself injurious to the simplicity and natural power of their poetry, besides being a snare, in many cases, to the ordinary narrator or describer, and tempting him aside into efforts of display which mar the effect of his composition. In the early stages of every literature, not simplicity (as it is thought) but elaboration and complexity, and tumid artifice in the structure of the diction, are the besetting vices of the poet; witness the Roman fragments of poetry anterior to Ennius. Now the fusile capacity of a language for running into ready coalitions of polysyllables aids this tendency, and almost of itself creates such a tendency.

V. The process by which languages grow is worthy of deep attention. So profound is the error of some men on this subject, that they talk familiarly of language as of a thing deliberately and consciously invented by the people who use it. A language never was invented\* by any people; that part which is not borrowed from adjacent nations arises under instincts of necessity and convenience. We will illustrate the matter by mentioning three such modes of instinct in which has lain the parentage at least of three words out of four in every language.—First, the instinct of abbreviation, prompted continually by hurry or by impatience. Secondly, the instinct of *onomatopœia*, or more generally, the instinct of imitation applied directly to sounds, indirectly to motion, and by the aid of analogies more or less obvious applied to many other classes of objects. Thirdly, the

instinct of distinction—sometimes for purposes of necessity, sometimes of convenience. This process claims by far the largest application of words in every language. Thus, from *propriety* (or the abstract idea of annexation between two things by means of fitness or adaptation) was struck off by a more rapid pronunciation and a throwing back of the accent, the modern word *property*, in which the same general idea is limited to appropriations of pecuniary value; which, however, was long expressed by the original word *propriety*, under a modified enunciation. So again, *major* as a military designation, and *mayor* as a civil one, have split off from the very same original word by varied pronunciations. And these divergencies into multiplied derivatives from some single radix, are, in fact, the great source of opulence to one language by preference to another. And it is clear that the difference in this respect between nation and nation will be in a compound ratio of the complexity and variety of situations into which men are thrown—(whence the necessity of a complex condition of society to the growth of a truly fine language)—in the ratio, we say, of this complexity on the one hand; and on the other, of the intellectual activity put forth to seize and apprehend these fleeting relations of things and persons. Whence, according to the vast inequalities of national minds, the vast disparity of languages.

VI. Hence we see the monstrosity of claiming a fine or copious language, for any rude or uncultivated, much more for any savage people, or even for a people of mountaineers, or for a nation subsisting chiefly by hunting, or by agriculture or rural life exclusively, or in any way sequestered and monotonous in their habits. It is philosophically impossible that the Gaelic, or the Hebrew, or the Welsh, or the Manx, or the Armoric, could, at any stage, have been languages of compass or general poetic power. In relation to a few objects peculiar to their own climates, or habits, or superstitions, any of these languages may have been occasionally gifted with a peculiar power of expression; what language is *not* with regard to some class of objects? But a language of power and compass cannot arise except among cities and the habits of luxurious people. “They talked,” says John to Paul, speaking of two rustic characters, in one of his sketches—“they talked, as country people are apt to talk, concerning—nothing.” And the fact is, universally, that rural occupations and habits, unless counteracted determinately by intellectual pursuits, tend violently to torpor. Social gatherings, social activity, social pleasure—these are the parents of language. And there is but the one following exception to the rule—that such as is the activity of the national intellect in arresting fugitive relations, such will be the language resulting; and this exception lies in the *mechanical* advantages offered by some inflexions com-

\* Meantime, a few insulated words have been continually nourished by authors; that is, transferred to other uses, or formed by thoughtful composition, or by skilful alterations of form and inflexion. Thus Mr. Coleridge introduced the fine word *ancestral*, in lieu of the lumbering word *ancestral*, about the year 1798. Milton introduced the indispensable word *sensuous*. Daniel, the truly philosophic poet and historian, introduced the splendid class of words with the affix of *inter*, to denote reciprocation, e. g. *interpenetrate*, to express mutual or interchangeable penetration; a form of composition which is deeply beneficial to the language, and has been extensively adopted by Coleridge. We ourselves may boast to have introduced the word *orchestic*, which we regard with parental pride, as a word expressive of that artificial and pompous music which attends, for instance, the elaborate hexameter verse of Rome and Greece, in comparison with the simpler rhyme of the more exclusively accentual metres in modern languages; or expressive of any organised music, in opposition to the natural warbling of the woods.

pared with others for generating and educing the possible modifications of each primitive idea. Some modes of inflexions easily lend themselves, by their very mechanism, to the adjuncts expressing degrees, expressing the relations of time—past, present, and future; expressing the modes of will—desire, intention, &c. For instance, the Italians have terminal forms, *ino, ello, acchio, &c.*, expressing all gradations of size above or below the ordinary standard. The Romans, again, had frequentative forms, inceptive forms, forms expressing futurity and desire, &c. These short-hand expressions performed the office of natural symbols, hieroglyphics, which custom had made universally intelligible. Now, in some cases, this machinery is large, and therefore extensively auxiliary to the popular intellect, in building up the towering pile of a language; in others it is meagre, and so far it is possible that, from want of concurrency in the mechanic aids, the language may, in some respects, not be strictly commensurate to the fineness of the national genius.

VII. Another question, which arises upon languages, respects their degrees of fitness for poetic and imaginative purposes. The mere question of fact is interesting; and the question as to the casual agency which has led to such a result is still more so. In this place we shall content ourselves with drawing the reader's attention to a general phenomenon which comes forward in all non-poetic languages, viz: that

the separation of the two great fields, prose and poetry, or of the mind, impassioned or unimpassioned, is never perfectly accomplished. This phenomenon is most striking in the Oriental languages, where the common edicts of government or provincial regulations of police assume a ridiculous masquerade dress of rhetorical or even of poetic animation. But amongst European languages, this capital defect is most noticeable in the French, which has no resources for elevating its diction when applied to cases and situations the most lofty and the most affecting. The single misfortune of having no neuter gender, by compelling the mind to distribute the coloring of life universally, and by sexualizing in all cases, neutralizes the effect as a special effect for any case. To this one capital deformity, which presents itself in every line, many others have concurred. And it might be shown convincingly, that the very power of the French language, as a language for social intercourse, is built on its impotence for purposes of passion, grandeur, and native simplicity. The English, on the other hand, besides its double fountain of words, which furnishes at once two separate keys of feeling, and the ready means of obtaining distinct movements for the same general passion, enjoys the great advantage above Southern languages of having a neuter gender, which, from the very first establishing a mode of shade, establishes, by a natural consequence, the means of creating light, and a more potent vitality.---*Blackwood.*

## HARBOURS ON LAKES ERIE AND ONTARIO.

**NEXT** in importance to the improvement of our public roads is that of our harbours. It is to little purpose that we make good roads upon which to convey our surplus produce and our imported goods, if we are destitute of safe and commodious harbours to which vessels can resort, to receive and discharge them.

There is not on the whole coast of Lake Erie—from the entrance of the Niagara river to the St. Clair—a harbour worth the name of one, or that will afford the required facilities to our commerce; or protection to any armed vessels which circumstances may render necessary for our defence.

It is true that money has been expended in constructing harbours. Enough has been spent at two or three places, had it been well appro-

riated, at least to have enabled merchant vessels to ship the produce of the country, and land in safety the imported goods necessary for the consumption of the inhabitants of the neighbourhood.

But like other expenditures in Canada, many of these undertakings have either been jobs, or they have been conducted by persons altogether ignorant of the commonest principles on which harbours, to be either useful or permanent, ought to have been constructed.

The harbour at Port Stanley is a striking example of the truth of the latter; the western pier, which is of a zig-zag form, is carried out nearly due South about 1000 feet into the Lake; the other, or the Eastern pier, is also of a zig-zag form, and extends in the same di-

rection about 84 feet. The current of the Lake is from West to East; and the prevailing winds are South West, and East, and South East, the former having a tendency to form land to the westward of the harbour, which it has done to the extent of several acres---and the East and South East wind having a direct tendency to wash up and leave a deposit between the piers at the opening, which we understand it has done so as to leave but little more than three feet of water.

The structure too is of that ephemeral nature as to require to be renewed at least once in eight or ten years, the harbour having been first used about 1830, and it is now in a complete state of decay.

The consequence has been ruin to those who built houses and stores on the shore adjacent, and a great source of uneasiness to the entire London and part of the Western District. The want of good harbours on the British coast of Lake Erie, prevents a single steamboat, either British or American, from calling, although it is asserted that if proper harbours existed there would be several boats of each description, which would gladly and most profitably frequent them.

The same observations apply to Port Burwell, situate about 24 miles to the eastward of Port Stanley, except indeed, that the money there expended has been still more injudiciously laid out, and the harbour as such is wholly useless. Nor is it that both permanent and commodious harbours cannot be constructed on Lake Erie. Nature has afforded excellent facilities, which require only the assistance of art to construct as good, approachable, and safe harbours, as any on North America. Both those already named may be made sufficiently commodious for schooners such as at present navigate the Lake, or for steamboats not drawing more than 12 feet of water.

The mouth of the Catfish River, which is situated between these two harbours, about 12 miles to the east of the former, and about the same distance west of the latter, offers facilities probably superior to any other, whether as a harbour for a naval depot, or as a safe retreat for vessels of all descriptions in the heaviest gales of wind, or from the attack of an enemy.

The shore is bold, and affords excellent anchorage, being a blue clay bottom, affording 15

feet of water at about 150 yards from the shore ---and rapidly deepening outside of that.

The Catfish River, (or creek as it is improperly called) is deep and wide for a very considerable distance inland, and with a little dredging may be made navigable for several miles into the interior.

This stream does not, as many other rivers do, proceed through a marsh or swamp on its entrance into the Lake, but issues into it from between two high cliffs, about 100 feet in height,---which would render it perfectly safe from attack in case of war,---and is protected from the action of the easterly gales by the projecting foreland of Long Point.

The interior basin of the river forms a noble natural curve to the north west, and is capable of receiving all the British vessels which frequent Lake Erie, and is not only safe from storms or freshets from within, but would be completely out of the reach of attack from without.

The interior of the country through which the Catfish River runs is a very fertile part of the London District, producing immense quantities of agricultural produce,---as well as of valuable timber, pine, white oak, chesnut, wall-nut, &c.,---all of which suffer greatly in their productive value from the want of greater facilities in getting to market.

The Catfish is about midway of the entire length of Lake Erie, and would be in all respects of inestimable value to the Province, both to its agriculture and to its commerce.

There are several other sites on Lake Erie where good harbours may, and probably ought to be made, and which would produce revenues sufficiently great to pay a large interest for the sums required to construct them, and without which that portion of the Province can never realize the advantages of soil and of climate to which it is justly entitled.

As an evidence of the revenue which these harbours would produce, Port Stanley, with all its defects, has paid a good interest for the money expended on it, and it is believed that it will this year pay full 12½ per cent, nor is there the smallest reason for believing that increased facilities would not be accompanied with a corresponding increase of both exports and imports into the Western Districts of the Province, and greatly add to their wealth and prosperity.



• We point to these improvements with pleasure, because we know that by giving them publicity we are taking the first step towards carrying them into effect,—and we entertain no doubt that a comprehensive and well ordered plan for the general improvement of our harbours will be organized by the Board of Works when that important body shall be legally constituted with full power to act.

The following memorial on Port Stanley Harbour has been addressed to His Excellency the Governor General, and we copy it here in further illustration of our previous remarks. It expresses the views of the mercantile and trading interests of the whole London District:

To His Excellency the Right Honorable CHARLES BARON SYDENHAM, of Sydenham in the County of Kent, and of Toronto in Canada, one of Her Majesty's Most Honorable Privy Council, Governor General of British North America, and Captain General and Commander in Chief in and over the Provinces of Canada, Nova Scotia, New Brunswick, and the Island of Prince Edward, and Vice Admiral of the same.

The Memorial of the undersigned, Merchants, Millers, Forwarders, and others of the London District,

*Humbly sheweth,*

That your memorialists are deeply anxious to bring under your Excellency's consideration, the serious loss and inconvenience which the trade and business of this important District sustains through the want of a proper harbour at Port Stanley.

Your memorialists believe that your Excellency is aware that Port Stanley is justly considered the key to the London District, from its central position, and from the fact of its being situated on that part of Lake Erie nearest to the two most important places in the District,—the town of London, and the village of St. Thomas: the former claiming importance as the District Town and the military depot for the western country, and the latter as the chief market for the disposal of the wheat and flour, and other exportable products of this District.

Your memorialists humbly beg leave to submit to your Excellency the following brief statement of facts relating to the harbour at Port Stanley. The piers were completed in 1831, at an expense of £6500, and tolls were first collected in that year; since that period they have usually amounted to more than six per cent on the money expended for the construction of the work. For the year 1840, the tolls collected at this harbour amounted to £613, or nearly 8 per cent on the original outlay; and some of your memorialists know, to their bitter experience,

that merchandize was shipped to this port, but which, from the state of the harbour, was cast away or landed at other places on the Lake, and which would have increased the tolls to 10, in place of 8 per cent.

Your memorialists say nothing of the quantity of goods landed at Hamilton for merchants in this District, who preferred paying the heavy land carriage from thence, rather than incur the great risk of landing their goods at Port Stanley, with the harbour in its present disgraceful state.

The quantity of produce in the storehouses at Port Stanley, destined for shipment upon the opening of the navigation, is estimated at 60,000 bushels of wheat, 2000 barrels of flour, 1000 barrels of pork, and 200 barrels of ashes, high wines, &c., the toll upon which will amount to £600. There are upwards of 1000 barrels of pork, besides a large quantity of wheat stored by merchants a few miles to the west of this harbour, in order to save the harbour toll; because, from the delapidated state of the piers, sand banks form at the mouth of the harbour, and vessels are compelled to load outside of the bar, which subjects the shippers of produce, over and above the harbour toll, to the same expenses for lighterage, as those who ship from the lake shore. Your memorialists also consider themselves fully warranted in assuring your Excellency that there is every prospect of at least as large a business being done at Port Stanley, during the approaching summer and fall, as took place last season, and if such should prove to be the case, the tolls for 1841 will amount to at least £1050, or upwards of 16 per cent on the capital expended.

Nothing can illustrate more strongly the disadvantages under which your memorialists labour, than the fact that British vessels last fall came to Port Stanley and discharged their cargoes of merchandize, and rather than load wheat there at one shilling currency, preferred going over to Cleveland, on the American shore, and taking their chance of obtaining freight from thence to Kingston, at ninepence, currency, per bushel. At the same time two vessels were lost, occasioning a sacrifice of property amounting to upwards of £2000, and many of your memorialists were heavy sufferers thereby and all in consequence of the ruined state of the harbour.

Your memorialists would furthermore represent to your Excellency that there is no harbour on Lake Erie or any point at which it is practicable to make one, which possesses such strong claims on the attention of the Government, as Port Stanley. A large annual revenue is derived to the country from the collection of duties on foreign imports there, salt alone yielding in some years upwards of £500. It is the natural outlet of the finest wheat growing townships in Canada, as also a great portion of that fair and fertile district of country watered by

the river Thames, together with parts of the Western, Huron, and Brock Districts. It is situated at the mouth of a stream which discharges a greater body of water into Lake Erie than any other rivers or streams falling into that Lake, except the Grand River, and perhaps the Otter Creek. When once over the bar at the entrance of the piers at Port Stanley, vessels ride safely in 10 and 11 feet water in the harbour, and alongside of the wharves, and had it not been for the break in the eastern pier, which permitted the water to rush through it during the freshet this spring, your memorialists confidently believe there would have been an average depth of ten feet water in the fair way, in place of having a sand bar at the mouth of the harbour with only six feet water upon it. Port Stanley is the most direct point of communication on Lake Erie with the great military depot in the heart of this district, and your memorialists have learned with much satisfaction that the most extensive proprietor of real estate at Port Stanley has gratuitously placed at the disposal of Government a sufficient quantity of land on the west side of the harbour for a naval yard, and for the erection of wharves, for the exclusive use of Her Majesty's naval force on Lake Erie.

There is one subject connected with the harbour to which your memorialist desire to call your Excellency's especial attention. When the harbour was in a proper state of repair, steamers ran regularly during the season of navigation between Chippewa, Buffalo and Port Stanley, bringing hundreds of British emigrants who otherwise might have settled in the United States, as numbers of our wealthy farmers can testify at the present day. Should the tide of emigration this season flow into Canada, as in former years, and as we have *no* reason to anticipate will be the case in future, there is no channel through which emigration by the St. Lawrence and New York, can find such ready access to the Western part of the Province, as by means of steamboats running from Chippewa and Buffalo to Port Stanley, but which your memorialists can never expect to see unless there is a proper harbour at the latter place.

Your memorialists have frequently witnessed with feelings of deep mortification, the ruinous condition of the harbour reacting on the state of our markets and depressing the prices of our staple agricultural products, and thereby sowing the seeds of irritation, dissatisfaction, and invidious comparisons, among all classes of Her Majesty's faithful subjects.

Your memorialists earnestly call upon your Excellency to adopt such steps as your Excellency may deem wise and proper to secure to this important district, and to the British shipping navigating these Lakes, a good, proper, and substantial harbour at Port Stanley, and thus wrest the province from the imputation un-

der which it lies, of suffering one of its few public works, actually yielding a revenue nearly three times more than the legal interest upon the sum expended in its construction, to fall to ruin and decay.

And your memorialists will ever pray.

#### HARBOURS ON LAKE ONTARIO.

The harbour at the head of the Lake, and which is first in order, either as to its situation on the Lake, or its importance to the community, is Burlington Bay.

This harbour is a formation, only on a larger scale, similar to the Peninsula opposite to Toronto, and with the bars formed at the mouth of all the rivers which run into our magnificent Lakes.

It is usual in this country to call these rivers creeks; some of them may properly be called creeks, but the general application of the term is decidedly incorrect. A creek, properly so called, is "*a small port, or bay, or cove,*" or *inlet of the sea or Lakes.* Very many of the rivers on the Canadian Lakes empty themselves into these inlets, and have therefore been identified with the creeks, and the terms have been improperly made synonymous. We shall probably on some future opportunity take occasion to explain some curious phenomena connected with the formation of these creeks, and be able to adduce from them a confirmation of the fact, that the waters of our great inland seas have been gradually diminishing, not only in extent, but in depth, and we may possibly be able from the evidence they afford, to form some idea of the period at which these changes have taken place, together with some of the important effects which have resulted from them,—a subject in itself curious and highly interesting, but chiefly important as connected with our present subject, because it will enable us to form some correct ideas on the causes of the formation of bars at the mouths of all our rivers,—which is intimately connected with the important knowledge of the means of preventing or removing them.

The remarks which have been made in reference to the construction of the harbours on Lake Erie are fully applicable to the Burlington Bay Canal, and we feel we cannot do better in confirmation of this observation than to annex an extract from the report of a survey made last autumn of this important work by a Civil Engineer of this Province.

*Report of a Survey of the Burlington Bay Canal, with plans and estimates for repairing the same, together with plans and estimates for a new Canal, made for the information of His Excellency the Governor General.*

In pursuance of instructions furnished me, I have carefully inspected the above work, and beg leave to accompany my report with a drawing of the Canal in its present state, which will shew generally its condition, depth of water, site, &c.

This report is also accompanied by a chart of the head of Lake Ontario, with a sketch of the site of the present Canal, together with that of the one contemplated.

It is impossible by any drawing to exhibit the state of ruin of the present Canal. On entering it from Lake Ontario, to the south are the remains of an intended break-water, originally several hundred feet in extent from nearly north to south, and once partially loaded with stone, the whole of which is overthrown and washed away, except the piles, which are exceedingly dangerous to the navigation, more especially in attempting to enter the Canal in the night, or during heavy storms.

The extreme end of the south pier is also washed away, except the piles, which add in no inconsiderable degree to the danger of the navigation.

A portion of the south pier adjoining was removed by the late gale, and no dependance can be placed upon its resisting the next storm which arises.

[Since writing the above, the breach which had been made by the late gale has so much increased as to endanger vessels on entering the Canal, to which something should be immediately done. A second breach of sixty feet in extent has also been made within the last few days, and it is impossible to say to what extent it may be carried during the winter.]

The remaining part of the south pier to the beach is the most substantial part of the work, having been better constructed, and repaired only a few years ago.

The south-west pier has been removed from its original position nearly from one end of it to the other—the bottom logs lying upon their sides—caused, in the first place, by having been built upon the sand and undermined by the current, but affected in a still more injurious man-

ner by the pressure of the ice. The water between the piers in the Canal never freezes, whilst the ice on the outside is frequently from two to three feet in thickness, subject of course to its usual expansion and contraction. The current which is constantly passing either into or out of Burlington Bay, under the influence of the prevailing winds, which it frequently does at the rate of four or even six miles an hour, necessarily carries away the sand from the bottom of the Canal, and partially from underneath the cribs which form the piers, producing a tendency in them to fall inwards, and the more so, because whilst the sand is washed away *within* the Canal, it accumulates *without* it at the back of the pier.

In addition to this, the pressure of the ice has been so great as to drive the piers bodily into the Canal, breaking off some and removing others of the piles, so much so that there is no foundation which can be relied on for making any efficient and permanent repair upon the present site.

The timbers of the north-west pier are most of them gone, and the greater portion of its entire length is about two feet under water.

The north-east pier is on the whole in the most efficient state, but in a very short time will be in as bad condition as the other piers which form the Canal.

\* \* \* \* \*

In the present state of the finances of the Province, it is presumed that it would be thought advisable, if possible, at least for two or three years, to keep the present Canal navigable without any large expenditure, and a close examination has been made with this object in view; the conclusion, however, is, that the navigation of the Canal cannot be ensured for a single season,—that the state of the piers is beyond any temporary repair—and that any repair to be at all efficient, would require an outlay of at least £25,000, and even then it is believed would not be durable, or available for the purposes for which the work was originally intended.

There appear, moreover, several reasons against expending so large a sum in repairing the present Canal.

A very considerable portion of the sum required will be necessarily expended in taking up the old work, which will prove to be a diffi-

cult as well as an expensive and tedious operation. The site of the present Canal too is now admitted by all persons who are acquainted with the navigation of Lake Ontario, to have been injudiciously selected. The depth of the Canal does not in some parts exceed eleven feet six inches, and it cannot safely be deepened,—whilst the water is at present a foot deeper than it is at some seasons.

The width at the narrowest part (the bridge) is not sufficient to admit our largest class of steamboats to pass through it.

And beyond all other considerations, it is believed that the growing importance of Hamilton and its vicinity, more especially if the contemplated railroad from that place to the St. Clair should be carried into operation, will require a Canal between Lake Ontario and Burlington Bay far more capacious and commodious than the present one is, or can be made by any repairs which can be effected.

The next object was to examine if a better site was not to be found, as well as to ascertain what would be the cost of a Canal sufficiently commodious, and which would be both substantial and durable.

An examination was first made of what has been generally considered the natural outlet, and which it was stated had on some occasions been sufficiently deep to allow small vessels to pass through it. The nature of the substrata was examined, as well as the depth of water, and the relative distances into both the Bay and the Lake. Bearings were also accurately taken, and observations made of the effect of the winds during heavy gales from the north-east, south east, and south, and a chart was drawn with these respective bearings laid down.

Enquiries were extensively made of Captains of steamboats, as well as sailing Captains navigating the Lake, and after the most minute investigation and deliberation, it was concluded, that the nearer the Canal can be placed to the north shore, the better it will be, and for the following reasons:—

A very cursory examination of the chart will shew, that during strong north-east, east, or southerly gales, the waters of the Lake will be driven with great violence towards its termination upon the beach at Burlington, where the swell is greatest, as the water is less sheltered by the head lands and the north shore. Near

the shore there is comparatively little swell, which increases with the distance from the shore.

During northerly winds, the water near the shore is calm, whereas a heavy sea is encountered even at the entrance of the present Canal.

During southerly gales, especially those from the south-east, there is the greatest swell on the north shore, and wherever the site for the Canal is selected its direction must be so chosen as to promote still water with the wind from that quarter.

Under all these circumstances the site and direction of the new Canal, as marked upon the chart, has been preferred.

[The Hon. John Macaulay, late President of a Board of Commissioners for improving the internal navigation of the Province, appointed in 1824, has, since this report was written, obligingly favoured me with a copy of their proceedings, which were conducted with great care and assiduity,—and it is very satisfactory to be able to quote the opinion of that Board, confirmed by the Engineers employed by them at the time, which is to be found in their report in the following words:—“*In making choice of the situation for the Canal, every proper consideration was given to the advantages and disadvantages of every part of the beach, and after comparing them it was the decided opinion of the Civil Engineer, in which opinion the Marine Surveyor concurred, that immediately under the high bank near Mr. Brant's, was the most favourable point for the work.*”]

It, however, became necessary, before determining, to ascertain the practicability of the site selected—and to examine the substrata and other localities.

And this was the more necessary, because it had been reported by former surveys that the rock formation extended from the shore to about this spot, and the rock was stated to be within about six feet of the surface. Soundings were again accurately made, both on the Lake and on the Bay, and no rock could be found by boring with a rod 20 feet in length below the surface of the water, and it seems highly improbable that a formation of rock should have existed so near the surface on a narrow ridge of beach which had evidently been formed by

the waters of the Lake, and which does not exceed 100 yards in breadth.

It appeared probable that an accumulation of stones which had been washed up from the Lake, the number of which evidently increased in a direction towards the angle of the Lake, and which it would be very difficult for a boring machine to penetrate, had been mistaken for a rock formation.

This opinion derived confirmation from the name given to this part of the beach by the Indians,—which was stated to me by Mr. Kerr, Succasinekong, an accumulation of stones, as they translate it. A rod was with difficulty, however, forced down upwards of twenty feet through the beach, as well as in several other parts on the margin of Brant's Pond, a little further north, as well as south, with the same result.

In order, however, to remove all doubt upon a point so important to the future progress of the work, it was determined to sink a small shaft through the beach,—more especially as it was found impossible from the nature of the sand to bring up with the borer any of the soil into which it last penetrated. A Kurb was provided, and the result has proved that a Canal may be formed at any part of the beach south of where these trials were made, and it is believed that if it were desirable, it may also be effected still farther north.

There is good reason for believing that the outlet by which the waters that run into Burlington Bay have discharged themselves, has been formerly to the north of where the shaft was sunk, and it has been probably very near the cliff, through what is now called Brant's Pond. It is believed that an accumulation of stones having been thrown up into the channel during the prevalence of strong gales from the south-east, which the press of the water was unable to remove, it rose in consequence above its usual level in the Bay, and found its way over that part of the beach which, being composed principally of sand, could be more easily displaced.

It is worthy of remark that so soon as the Canal was opened this channel immediately filled.

Soundings in that direction having been carefully taken, distances ascertained, and the bearings of the different head lands laid down, the place

recommended was selected as on the whole the best site for the Canal, and it is believed that it will prove to be as was stated by a very intelligent sailing Captain whose opinion was asked, a blessing to persons who like himself had been exposed to the dangers and difficulties arising out of the want of a safe harbour at the head of Lake Ontario, as well as of approaching the present Canal in stormy weather.

It will be seen by a reference to the chart that a harbour of this description will be formed inside the piers of the Canal, where there is the best anchorage, and where vessels may ride in safety during the heaviest gales from whatever quarter they may blow.

The next consideration which presented itself, was the nature of the construction of the intended Canal. Whatever that construction might be, it is obvious from the preceding observations that it must rest upon a foundation different from that upon which the piers of the present Canal stood. The foundation must go through the sand, and if possible rest on the blue clay formation which is to be found beneath it, and if built of solid masonry, must probably even then be supported on piles.

The instability of the present structure has arisen from the piers having been sunk on the sand, without dredging so as to reach the blue clay which is to be found at about 21 feet deep; and the inferiority of the workmanship has in no small degree contributed to it.

Had the bottom been dredged so as that the cribs might have rested below the wash of the Canal, and had the workmanship been of a better character and able to resist the force with which it had to contend, it is presumed that the Canal might have answered the purpose for many years to come. It will be found practicable to construct the new Canal upon similar principles, remedying the above defects, and the part out of water may be covered either with solid masonry or with timber well framed and filled with grouting, and covered with a substantial sea pavement.

It is submitted that there are four modes of construction which present themselves.

*First*, by excavation through the beach to the required depth, forming the banks of the natural soil, with a slope of about 30 degrees.

*Second*, by the formation of coffer dams formed by close and deep piling, filled in with

well puddled clay and stone, so as to be impervious to the wash of the water.

*Third*, by solid masonry at both entrances, and coffer dams between the intermediate distances.

*Fourth*, by solid masonry for the whole.

Estimates with sketches of each of these methods are annexed.

The first method, which is by far the cheapest, is liable to many objections.

The water at the sides of the Canal will be necessarily shallow, and notwithstanding the slope is so gradual, the action of the current, aided by the natural swell, as well as that produced by the paddles of the steamboats, will render constant dredging necessary. Eddies will be formed by the prevailing winds, and the channels at both entrances will, it is believed, be shifting, and of course difficult to discover.

The formation of suitable coffer dams will be an efficient and permanent structure, if the piles are well driven into the blue clay, and close together, aided by sheathing so as to prevent the material with which they are filled from escaping, capped with a strong and well executed frame work, mortised down upon the top of the piles, well braced with cross ties, and the whole to be below the low water mark.

The superstructure out of the water may be formed of framed timber, filled with stone, and covered with a good sea pavement laid in water lime, which can be easily repaired when necessary, without disturbing the foundation, which it is believed will be very durable; these coffer dams may be made accessory to the erection of piers of solid masonry at some future period, and would be so much in aid thereof.

The third plan, or that of solid masonry for the two entrances, and coffer dams, formed either of cribs or by piling, will be perhaps the most to be recommended.

The fourth, or a structure of solid masonry, is the mode by which works of a similar description have been erected in Great Britain, and although it would be attended with some difficulty in its construction, is nevertheless very practicable, and would last for ages. Stone of an excellent description is to be obtained suitable for it both on the Lake shore at Hamilton, and in the mountain within three miles of the place, where it is inexhaustible, and is of the finest quality.

Estimates of the cost of each of the above structures have been carefully made, and are appended to this report.

It has been considered that this report should state what the probable income arising from the Canal and Lighthouse will be, to enable his Excellency to judge of the return likely to be made for the sum expended.

It is satisfactory to be able to state, that with a due regard to the collection, there is every reason to believe that a revenue will be realized sufficient to discharge the interest of the sum required for the completion of a permanent structure, and it is also believed that it will become capable of gradually lessening and ultimately of discharging the principal.

In the year 1835-6, the tolls amounted to about £1900; for some reason not ascertained about that time the rate of tollage was greatly reduced, and since then the amount collected has fluctuated greatly.

It seems to be generally admitted that the tolls require to be remodelled, and it is asserted that they are capable of being made to produce £4000 per annum, without being oppressively high to any class of the community.

It is also observable, that although the public have the accommodation of a bridge in passing across the beach, by which a distance of 12 miles is saved if persons travelling were obliged to go round by Hamilton, no toll is charged.

It is believed that if a moderate toll was collected it would produce a revenue of £500 per annum, from which no deduction would be made for collection, as the same person who attends the bridge and the light house would also collect the tolls.

Nor could any reasonable complaint be made by the public against paying a moderate toll for the use of a safe and commodious bridge, because before the Canal was cut the passage across the beach at the outlet was frequently dangerous, and sometimes impracticable, and various accidents are stated to have occurred.

It may perhaps be desirable to expend a sum of about £300 in improving the beach road, in which case it is presumed the public would not only be greatly benefitted but fully satisfied.

Estimates are then given of the cost of each of the four methods named,—the first is estimated at £6500; the second, including bridge and light-houses, at £33,975 2s. 6d.; the third, also with bridge and light-houses, at £45,000; the fourth, with bridge and light-houses, at £38,492. An estimate is also made for a break-water 300 feet long, which would cost £1500.

## COLONIAL TRADE.

THE following documents on the trade of the provinces emanate from those who are greatly interested in it, and therefore deserve a candid consideration. In the first, the North American merchants in London state their opinion respecting the proposed alterations in the tea trade, and recommend an application to the Canada Legislature to reduce the duty on tea. The propriety of this reduction was stated in our last number. The present duty on tea imported into Canada is 2d. per lb. on Bohea, 6d. per lb. on Hyson, and 4d. per lb. on all other kinds of tea. Now, it costs 2d. per lb. to smuggle tea, partly from the extra expense and risk of smuggling, and partly from the smuggler buying at less advantage than the fair trader. Therefore, if our duty on tea be reduced so that the whole duty does not exceed 3d. per lb. we shall put a stop to smuggling, for the 1d. per lb. difference is too little profit to pay the smuggler. This reduction of duty would not lessen the revenue, but increase it; for at present about three-fourths of all the tea used in Canada is smuggled, and therefore pays no duty. But when smuggling shall be stopped by a low duty, all the tea used will pay that low duty, and will therefore contribute to the revenue, which will thereby be increased instead of diminished.

The bill founded on Mr. Labouchere's resolutions in the House of Commons on Colonial Trade had had a second reading, and would most probably pass without further opposition. The reduction is now brought to 7 per cent instead of 10. The Act, supposing it passes, will not go into operation until next year.

LONDON, March 29, 1841.

STR.—We beg leave to address you on the proposed alteration of the law in respect to tea imported into the British North American Colonies.

It is stated that the alteration is proposed in consequence of extensive smuggling in green tea from the United States into Upper Canada.

It may be premised, that tea imported from China, by native vessels, into the United States of America, is duty free; and that, in Canada, it is subject to a duty of 4d per pound when imported from the United Kingdom or the East. It is proposed now to legalize a trade which has been hitherto prohibited by allowing tea to be brought, by inland navigation, from the United States, into the British North American Colonies, on an addition of ten per cent. on the 4d per pound.

When tea bore a duty in the United States, there was no smuggling into Canada, except at those periods when Company's tea was at a high price in this country; and when the Government of the United States made the article duty free, it was the anxious desire of the mercantile body in the Canadas, that the Legislature of Lower Canada should reduce the duty, in order to meet the apprehended evils of smuggling; it is, however, well known that the Legislature gave no attention to the point, and were engaged with alleged political grievances, to the exclusion of matters of trade, and of almost all other subjects.

We do not deny that there is smuggling in tea from the United States into Upper Canada; on the contrary we admit that it has existed, but not to the extent generally assumed. We humbly presume however, to think that we shall satisfy you, that the proposed alteration will not only fail to prevent the evil, but that it will certainly increase it.

We take it for granted, that it is allowed that the smuggling referred to is not occasioned by the article being prohibited as an article of trade from the United States into Canada; and that it is occasioned by the higher price in Canada offering a large temptation to the smuggler. This higher price is occasioned mainly by the duty of 4d per pound, which is equal to nearly twenty-five per cent. *ad valorem*.

But the proposed addition of ten per cent on the 4d per lb., or on the twenty-five per cent *ad valorem*, will certainly increase the amount of smuggling, while the withdrawing the prohibition will leave the article, when within the lines, no longer an object of suspicion, and, therefore, much less liable to seizure than it has hitherto been. It can never be argued that the legalizing of the trade will make the smuggler an honest trader; the temptation to smuggle remains, nay is increased. The true policy is surely to reduce the duty considerably, and it is believed that the revenue will not be injured thereby.

With regard to the point assumed, that the Americans supply a more suitable article than the British

trader, for the use of Upper Canada, it is, if true in fact, an argument not fair towards the British trader. When there was a duty on tea in the United States, Great Britain supplied nearly all the wants of the Canadians; but when it was made duty free, while a high duty remained in Canada, a taste may have been taken to the cheaper and inferior American tea, which was brought in, in defiance of the law, and without duty; but we deny its truth, and we only want a reduced duty in Canada, and thereby an encouragement to extended trade, to drive the American tea out of use in Upper Canada. The London market, since bohea tea was made to bear the same duty as other tea, has been largely supplied with inferior green teas; the bohea, which is the woping tea, mixed with a little congou, is now manufactured at Canton into an inferior green tea, the very article which the Americans chiefly import. Indeed there is, at this moment, an export going on from London to the United States of these inferior green teas, imported into London, by British merchants from Canton; and some which had been imported into this country from the United States has been re-shipped to New York. It is right also here to state, that, at this moment, there cannot be less than £50,000 value of teas, or 8,000 chests going or just gone, from London and the out-ports to the British North American Colonies, a great part of which is green tea to Canada. Farther, there is an infant trade between Canton and the Colonies, which in place of being fostered, will be destroyed by the proposed alteration. Since the last of the stock of East India Company was sold in the Colonies, six vessels have arrived direct from Canton; and it is presumed that the merchants engaged in the trade from London, and in the direct trade, have an interest in supplying the article which is most suitable to the trade, and it surely is not necessary for the English to be taught this by the American trader.

Strong as the case is with regard to Canada, it is, if possible still stronger as regards the Colonies of Nova Scotia and New Brunswick. We are at a loss to know on what ground, because there is smuggling of green tea into Canada, the Americans are to be allowed to import tea into Nova Scotia and New Brunswick; and it is the more unintelligible to us, because the tea consumed in these two Provinces is black tea, whereas a large portion of the tea used in the United States is green, and it is not pretended that the Americans smuggle their tea into these Provinces.

Still less can we comprehend the necessity or policy of the measure in respect to these two Provinces, when it is a fact that in New Brunswick tea is duty free, and therefore the ten per cent addition on the duty cannot apply, and the Americans will have a trade open to them wholly free of duty; and in Nova Scotia the duty being ten per cent. *ad valorem*, the American tea will pay ten per cent. thereon, or one per cent *ad valorem*, placing thereby the American merchant nearly on an equal footing with the British importer.

Neither again can we comprehend the measure, when it is known that those Colonies have been abundantly supplied with tea by the British trade.

You are, perhaps, not aware that, although tea, when imported into the United States from China direct, is free of duty, it is subjected to a duty of ten cents per pound, when imported from Great Britain or her Colonies. Thus the effect of the proposed law will be to open the whole trade of the British North

American Colonies to the United States, whilst the British or Colonial merchant is excluded by the duty of ten cents per pound, levied on his tea alone, from trading in tea to the United States.

In conclusion, we beg that Her Majesty's Government, in getting rid of one evil, that of smuggling tea into Upper Canada, may not inflict a great one on the whole of the British North American Colonies, namely the loss of a large trade in tea by British merchants in British ships; and we feel our case to be irresistible, inasmuch as the evil can be remedied and a large benefit conferred on British trade by a reduction of the present high duty, and which we firmly believe can be done without injury to the revenue. We, therefore, pray that the proposed alteration may not be made, and that Her Majesty's Government will request the Governor General of Canada to recommend to the Legislature, to reduce the duty on tea imported into Canada from the United Kingdom, and places eastward of the Cape of Good Hope.

We have the honour to be,

SIR,

Your most obedient,

Humble Servants,

GILLESPIE, MOFFATT, & Co.  
 GOULD, DOWIE, & Co.  
 WM. PEMBERTON & Co.  
 ROBT. & BENJ. BROWN & Co.  
 W. R. CHAPMAN.  
 ELLICE, KINNEAR & Co.  
 CUNARD, INGRAM & Co.  
 WM. E. LOGAN.  
 W. & A. ATKINSON.  
 ARCHD. PAULL & Co.  
 ROBINSON & BROOKING.  
 TURNBULL & RADENBURST.  
 R. F. MAITLAND & Co.  
 ROBT. HARRISON.  
 C. STAIRBANK & SONS.

Right Hon. Henry Labouchere, M. P.

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**Report of the Committee of the Toronto Board of Trade, 15th April, 1841.**

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YOUR Committee regret that several causes have concurred, to prevent the presentation of the regular annual report, at the time prescribed by the laws of the Board—among the causes has been the removal from our city of our respectable and zealous Secretary, Mr. Brent. The Committee regret to report, that during the past year, their transactions have issued in very little present advantage; yet, they hope that their labours will not be fruitless, now that the renewed interest and energies of the Board, have been excited by the prospect of their interference and representations leading to those practical ameliorations, the promotion of which is the object of the association. The Committee congratulate the trade that the commercial interests of Canada will now possess their proper weight in Parliament; many of our principal mer-



chants and financiers having been elected members of the Assembly.

It is gratifying to your committee to know, that in consequence of the termination of the objectionable combination, for several years past existing between the forwarders on the Ottawa and Rideau Lines—that trade is once more thrown open to competition, and the results will be an immediate improvement in the whole business.

The disparity between the currency of Upper and Lower Canada, your Committee regret, still continues to be felt as a serious impediment to the satisfactory transaction of business with Lower Canada. A premium of three  $\frac{1}{2}$  cent (the rate at which exchange on Montreal has generally been sold during the past winter) cannot be considered a trifling item in the drawbacks incidental to our Provincial trade. But even at this disadvantageous rate, the inconvenience might be struggled with, were the merchant always sure of obtaining bills on Montreal—it is, however, an unpleasant fact that it is frequently impossible to procure a draft on Montreal on any terms.

The primary cause of this disadvantageous condition of our monetary relations, is, of course, to be found in the enhanced value at which British Silver in Upper Canada has been rated, in comparison with that which obtains in Lower Canada. It is to be hoped that the Legislature will, at an early day, introduce a law to regulate the currency of the United Province. Another most important subject of consideration to all classes in these Colonies, is that of the adoption of a uniform rate of postage. Your committee observe that the Board of Trade of Montreal have suggested the rate of 3d. the half-ounce. The adoption of such a measure would be hailed by all as a boon of vital importance.

A continued source of complaint, on the part of exporters from Upper Canada, is the high charges levied in Montreal for Inspection, cooperage, &c. &c.—These charges, when added to the heavy down freight, insurance, and charges, make an aggregate average of 25  $\frac{1}{2}$  cent. on the value of flour; and operate very seriously against our agricultural interests. In connection with this subject, the consideration of the appointment of regular Inspectors at this port, presents itself as a matter of great importance—Ashes, Flour, Pork, &c., bought in this market, if not purchased subject to Montreal Inspection, must be bought under the risk attendant on the chance of failing to meet the favourable decision of the inspector—in which case, the buyer must protect himself at the expense of the farmer, by graduating his price, so as to be safe against the uncertain result.

The yearly increasing quantity of English salt imported into Upper Canada from Montreal, is another subject calling for the attention of the mercantile and agricultural classes—Nothing would tend more permanently to reduce the freights, hitherto so oppressive along our inland communications, than the removal of the duty levied on Montreal on English salt—large stocks would immediately be held in the interior, and salt the manufacture of the United States, would soon be entirely superseded. The exportation would thus be saved Canada of large sums of money to a foreign country, which notoriously carries on with us no compensating trade. English salt is far superior to American, and the curers of provisions would greatly prefer it, especially as at inspections in Montreal, Pork and Beef cured with American salt are always discarded.

It must be admitted that the framers of the Corn Laws in England, in imposing a duty on Colonial wheat, flour and other grain, did not take into consideration the very heavy freight and charges to which they are subjected on shipment from the lake ports of Canada to England. These charges, on Wheat, are as follows:—

	Sterling.
1.—Transport and Insurance from Ports on Lake Ontario, (from Lake Erie and Huron they are much higher) to Montreal, including shipping charges there, $\frac{1}{4}$ quarter,.....	£0 10 0
2.—Freight from Montreal to England, $\frac{1}{4}$ quarter,.....	0 10 0
3.—Insurance from Montreal to England, valuing the quarter of wheat at 40s. and taking the premium at the lowest rate—say 2 $\frac{1}{2}$ cent, exclusive of policy, making in the quarter,.....	0 0 10
4.—Interest on the cost from the time it is bought in Canada of the farmers, say the middle of January, to the time of its arrival in England, which is seldom earlier than July, equal to 6 months amounts, on the quarter valued at 40s., to.....	0 1 2 $\frac{1}{2}$
5.—On an article like Wheat, which is liable to great injury from a long voyage the actual extra risk over and above what there is in shipping it from the North of Europe to England, cannot be computed at less than 4 $\frac{1}{2}$ cent, which, at the cost of 40s., makes on the quarter,.....	0 1 7 $\frac{1}{2}$
* Total,.....	1 3 7 $\frac{1}{2}$

To this add 5s. sterling  $\frac{1}{4}$  quarter duty, we have then a sum total of £1 8s. 7 $\frac{1}{2}$ d. to be paid before the staple produce of our Colony can be sold in a British market. This calculation which is based on experience and truth, shows most conclusively, that the British agriculturist can have nothing to fear from the importation of wheat, flour, and other grain, from the Colonies of North America, duty free, when they are protected to such an extent.

It is also obvious, from this calculation, that the wheat growers of the North of Europe, who ship immense quantities to England, are, in consequence of their having such low freights and insurance to pay, and so little risk to run—placed in a much more advantageous position than the Agriculturists of Canada—to make this apparent the Committee would add:—

That when the average price in England of wheat, is 64s. to 65s.  $\frac{1}{4}$  quarter, the duty on foreign wheat is £1 2s. 8d.: to this may be added 4s.  $\frac{1}{4}$  quarter, which is a sum sufficient to cover freight and insurance from the average of the ports in the North of Europe, whence it is sent to England—these added together make £1 6s. 8d. From Canada, with the same average, and with our heavy freights and charges, it would be delivered in England for £1 8s. 7 $\frac{1}{2}$ d.  $\frac{1}{4}$  quarter, being 1s. 11 $\frac{1}{2}$ d.  $\frac{1}{4}$  quarter in favour of the foreigner.

\* It is assumed that the land carriage from the interior to the Lake Ports will be equal to the corresponding carriage in Europe to the ports of exportation.

To illustrate the matter still farther, take the following averages at which the great bulk of foreign wheat enters the British markets, and the disadvantages under which we labour are still more fully demonstrated:—

	Duty.	Freight.	Together.
When the average on Wheat in England is 88s. to 69s. per quarter, the Foreigner would pay.....	16s. 8d.	4s. ....	20s. 8d.
The Colonist would have to pay, although subject to a duty of 6d. per quarter.	.....	.....	24s. 1½d.
The Foreigner would pay .....	14s. 8d.	4s. ....	18s. 8d.
The Colonist .....	.....	.....	24s. 1½d.
The Foreigner .....	10s. 8d.	4s. ....	14s. 8d.
The Colonist .....	.....	.....	24s. 1½d.
The Foreigner .....	6s. 8d.	4s. ....	10s. 8d.
The Colonist .....	.....	.....	24s. 1½d.
The Foreigner .....	1s. 0d.	4s. ....	5s. 0d.
The Colonist .....	.....	.....	24s. 1½d.

From the Colonies the wheat is always sent in British ships; from foreign countries a considerable part is shipped in vessels belonging to the country from which it is sent. The Colonists receive payment for their wheat in British manufactures: the foreigner generally in specie.

The natural disadvantages under which the farmer-labourers, from the above charges in our exports, as well as from an increased price which our position makes him pay for British goods (already heavily taxed) are, the Committee consider, burdens, as near an equivalent to the more direct taxes of the mother country, as any one would like to see borne by Colonists.

During the past year, when butter was unusually high in England, some small shipments were made; and although the heavy duty, of 20s. Sterling  $\frac{1}{4}$  cwt. (the same that is levied on the imposition of foreign butter,) had to be contended against, it was found that the profits were remunerative. But when it is considered that much of the butter exported, was bought from the farmers, at a low price as 4d.  $\frac{1}{4}$  pound, (or about 3½d. Sterling,) it is not to be expected that, without the withdrawal of the Home duty, this branch of our export trade, which is capable of vast extension, can improve.

The British Manufacturer has not yet to learn, that in these colonies, the only limitation which our demand for his goods knows, is, the extent of our ability to make returns in the products of our soil; and the fostering of our resources is merely the means of sustaining in greater vigour, the important manufactories of the mother country. The removal of all disabilities which stand in the way of our agricultural interests should engage our most strenuous efforts—for our commercial advancement must keep pace with our agricultural improvement.

It appears to your Committee, that from the very intimate connection existing between Upper Canada and the city of Montreal, the great outlet and depot of our whole trade and the point at which centre all our shipping relations with Great Britain, much advantage would accrue to us were Montreal created a free port. Whilst the Island of Jamaica has no less than ten free ports, the whole of Canada possesses only one; and that too, the distant, and comparatively inconvenient port of Quebec. By this monopoly, the trading interests of Montreal, and of the whole of the great commercial districts, of which that port is the grand confluence, are allowed to labour under very serious inconvenience.

The Committee would also recommend to their successors to use the influence of the Board of Trade to have Toronto made a Warehousing Port, by which means Tea, Wines, Spirits, and a number of other articles on which the duties are high on importation, could be warehoused and the duties paid when the goods were required,—thus a considerable outlay of capital in the shape of duties which are now generally paid on landing in Lower Canada would be saved by the importing merchant, who has already many inconveniences to contend with, in having his whole year's stock of goods to provide during the short space of six or seven months.

The Committee have delayed their advocacy of the great internal improvements which are necessary to the opening up of the Home District, until the Board of Works, lately established, may be communicated with; because it is only with the assistance of Government that such undertakings as the connecting of lakes Huron and Ontario can be attempted, or any others, which will materially compensate this city for the withdrawal of the Seat of Government.

The prohibition, by which tea is prevented from being legally imported from the United States, the Committee observe, with much gratification, will in all probability be removed during the present session of the Imperial Parliament.

In this, as well as some other important changes, the Committee have pleasure in recognizing the advantage of having, as Her Majesty's Representative in these Colonies, a Statesman conversant in the details as well as the theory of commercial affairs.

The Committee cannot omit urging on their successors the necessity which exists for the passing of a general Bankrupt Law for the Province, and they trust the attention of the United Legislature will be directed to this important subject. Divested as the Board of Trade has been, in all its operations, of even a shade of political or party feeling,—the importance of every one interested in commercial affairs identifying himself with an institution which may become of essential benefit to the city, must be obvious. The Committee hope that every merchant in the place will join in forwarding the objects of an association which has made some progress in public estimation, and the usefulness of which ought to be extended to the utmost possible limit. It becomes a matter of duty on the part of all engaged in commercial pursuits, not to rest satisfied with merely according their sanction, but to render active personal assistance in bearing out its operations.

(Signed) J. WORKMAN,  
*Secretary.*

#### Quebec Address on the Timber Duties.

##### *To the Queen's Most Excellent Majesty.*

The petition of Your Majesty's loyal and dutiful subjects, the inhabitants of the City and District of Quebec,

*Humbly sheweth,*

That your petitioners have heard, with great alarm, that your Majesty's Ministers intend proposing to Parliament, during its present Session, an alteration in the duties now levied in the United Kingdom on timber and deals.

That these duties, as they stand at present, afford no more than a bare protection to Colonial timber and deals in the British market—that any alteration in favour of foreign articles of the same description would involve in ruin many of your petitioners, and others of your Majesty's loyal subjects, who, on the faith of the Imperial Parliament, by whose acts the colonial timber trade was created, are now deeply engaged therein, and would have an equally injurious effect on other great and important interests which have grown up under the encouragement thus given to the trade.

That the colonial timber trade had its origin in the necessities of the empire, during a time of war, when there was reason to fear that the safety of the country might be endangered, were it left dependent upon foreign powers for the supply of an article of such primary importance.

That the country may be again placed in similar circumstances, and that a trade which, under the fostering care of Government, has taken more than thirty years to attain its pre-

sent magnitude, could not, if destroyed, be suddenly revived upon such an emergency.

That in the year 1821, peace having been restored and consolidated in Europe, an enquiry was instituted into the timber trade, to ascertain how far the scale of duties then in force would bear modification, and after a long and laborious investigation by a select committee of the House of Commons, and after maturely weighing the evidence brought forward on all sides of the question, the present scale of duties was determined on. It was considered an equitable adjustment, enabling competitors from all quarters to meet on equal terms in the British market, and on the faith of its permanency large numbers of British subjects have continued to embark in the trade.

That in the year 1831, a new scale of duties was proposed, and having been submitted by ministers to the House of Commons, was rejected by a large majority.

That your Majesty's subjects in the colonies then thought the question finally set at rest: and considered that they might safely embark in the trade to a larger extent than ever. In four years afterwards, however, a select committee of the House of Commons was again appointed to enquire into the expediency of altering the duties, but although a great majority of that committee consisted of persons opposed in opinion to the protective principle, and although no pains were spared to bring forward a preponderance of evidence in favour of their views, the result of the enquiry was so favourable to the colonists, that ministers abandoned their intention of proposing any alteration in the duties, as adjusted in 1821.

That notwithstanding the uncertainty and suspense to which the staple trade of the British North A. Colonies has thus, from time to time been exposed, in consequence of the changes which have been proposed therein, your Majesty's petitioners, and their fellow-colonists, relying on the justice of the British Parliament, and confident of being able, provided a fair opportunity were afforded them, to rebut any evidence that could be adduced unfavourable to their cause, have gone on enlarging and extending their investments and operations, until their annual exports, from this port alone, exceed 1200 cargoes, (mostly of timber and deals,) affording the chief means of paying for our imports of British products and manufactures, the value of which exceeds £2,000,000 annually.

That on all former occasions of Legislative enquiry affecting their interests, your Majesty's subjects in the Colonies have had an opportunity afforded them of refuting any incorrect statements that might be made to their prejudice, and it is with the deepest alarm that your petitioners now make known to your Majesty that, on the present occasion, they have had no such opportunity,—that the persons called before the

select committee of the House of Commons, appointed last session to enquire into the duties levied on imports, for the purpose of being examined on the timber trade, were exclusively such as were known to entertain opinions adverse to your petitioners, or to be interested in the timber trade of foreign countries—and that the evidence given by these persons contains statements and assertions highly injurious to the interests of this province, and entirely unfounded in fact.

That the people of Canada have been greatly misrepresented by those who have asserted in their name that they would be willing to be deprived of the protective duties on their timber trade, provided the existing restrictions on their import trade were removed. These restrictions are few and unimportant, being mostly intended to protect British products and manufactures from foreign competition, and these your petitioners believe require no such protection, but if they did, your petitioners beg humbly to assure your Majesty, that it would be cheerfully submitted to, their desire being to perpetuate the connexion between the Mother Country and her Colony, by making it mutually beneficial.

That timber and deals are the chief articles of export which this country produces, and must continue to be so, till a large portion of it shall have been brought under cultivation by a greatly augmented population. This, the lumber trade is eminently calculated to produce, by the cheap means of conveyance across the Atlantic which it provides for the poor emigrant in ships coming out in ballast; by the ready means of employment which its various operations of sawing, shipping, and preparing for shipment afford him on his arrival; by the relief and support which the old as well as the new settler derives from it, in consequence of its furnishing them with occupation during a long and severe winter, when agricultural operations in this country are impracticable—and by the market it furnishes to the farmer for his produce at his own door.

That the lumber trade gives employment and the means of subsistence to a large portion of the population of this Province, and that the interests and prosperity of the whole are in a very great measure dependant upon it,—that its value, when shipped, is the produce exclusively of the labour of British subjects, and paid for in British goods,—that in its transport it gives employment to more British shipping, and more British seamen, than any other trade within the whole range of British commerce, with the single exception of the home coasting trade, and that should the protecting duties be reduced, all these advantages will be reversed in favour of foreigners, who will not receive British goods in payment, but require money, and unrestrained by competition, will then charge their own price, the consumer paying in

price to foreigners, what he now pays in price to your Majesty's Treasury.

That a large portion of the capital of the colony is invested in saw mills, wharves, and other fixed property necessary for carrying on this trade, and that a slight alteration in the protective duties would entirely destroy their value.

That your petitioners abstain from entering upon so extensive a subject as the effects which the dreadful measure would have upon the prosperity of the empire at large, but they cannot too strongly express to your Majesty their conviction, that to the British North American Colonies its effects would be most disastrous.

Wherefore, your petitioners humbly pray that your Majesty, taking the premises into your favourable consideration, will be graciously pleased to maintain your petitioners, and the province at large, in the privileges and protection which their trade now enjoys.

And your Majesty's petitioners, as in duty bound, will ever pray.

It may be questioned whether this petition does not exaggerate the loss to be apprehended from an alteration of the timber duties, and thereby weaken the case which it is intended to maintain. It predicts absolute ruin from any ("a very slight") alteration of the duties, which, it is said, "as they stand at present afford no more than a bare protection to Colonial Timber and Deals in the British market." The duties are 10s. per load on Colonial timber, and 55s. per load on foreign. And the difference of duty is really much greater than the difference between these two sums, because of the great difference in the quality of the two articles, Colonial timber being much inferior in quality to Baltic timber. There are some persons who deny this, but no one in England doubts it who has ever tried the two kinds of timber. Taking then this difference of quality into account, the difference of duty will be as one to ten, for the 55s. on foreign timber are equal to 100s. if the duties were levied according to quality. But waiving this altogether, there is a general impression in England that they are paying too dear for the protection of Colonial timber, and that an alteration of the duties may be made to their advantage without much loss to the Colonies. For whether the alteration be by reducing the duty on foreign timber, or raising it on Colonial, there will be still a considerable difference maintained in favour of the latter, so that the predicted ruin will not follow as a matter of course, even if no other channels were opened for the trade.

We think that the Government should retain the present duties if they can, for the colonies deserve all the protection that can be afforded to them without bearing too heavily on other interests; but we are aware that the desire for an alteration of these duties is so strong in England that it will be difficult for ministers to resist it. Some persons have supposed that this desire is confined to those who are either enemies of the colonies, or interested in the Baltic timber trade, but this is a mistake, for the desire is general among nearly all who use timber, that is, nearly the whole nation, the exception being confined to those who are interested in the Colonial trade. There are many persons who would break up the Colonial timber trade altogether, and say it would be beneficial to do so, as the Colonists neglect agriculture for the lumbering business; but we differ widely from these representations. Timber is a natural product of the soil, and as proper a subject of trade as wheat or flour. And as to the neglect of agriculture, it is a mere delusion. The persons who are engaged in it do not of course attend much to agriculture, but what of that? They form a home market for farming produce; and if we had mines or manufactures, would not the persons engaged in them attend to nothing else? and would not the produce of their labour be a proper subject of trade, and they themselves the best customer to the farm-

er? The fact is, that we should encourage this home demand for farming produce, for whether it arise from manufacturing timber, or manufacturing cloth, or iron, or any other thing, it is an additional source of public and private wealth which no sane man would throw away. There is just as much reason for working a forest of timber, as there is for working a mine of gold,—the former will buy the latter. Some persons have left agriculture for lumbering who would have done better had they stuck to their farms, but this is an evil which corrects itself. Men naturally turn to that kind of employment which promises most profit, only they sometimes miss their calculations, but this is the case in every country, and is by no means peculiar to Canada or lumbering. The timber trade is as legitimate a trade in Canada as mining or weaving is in Great Britain; and if the British public decide that the protection hitherto extended to it is excessive, is too great a sacrifice on their part, and must be reduced, we do not doubt but the Colonies will push their trade into other channels. We should prefer it remaining as it is; but the people of England have to take care of their own interests, and may consider that if it comes to the worst we have always land to apply to for a means of subsistence, whereas they are so crowded that no man can shift his position or change his occupation for life.

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### LAKE ST. PETER.

THE Canadian public are generally aware that Lake St. Peter is too shallow to admit large merchant vessels to pass between Quebec and Montreal, and those vessels of lighter draught that do ascend to Montreal, sometimes ground in the Lake, and are subject to great expense in lighterage in consequence. Hence a plan for dredging a deeper channel through the Lake has been often agitated, and it has been recently revived, which has led to the following report on the subject.

In this report the committee differ from Capt. Bayfield's opinion on the question; but it appears to us that they beg the point at issue between him and them. They ascribe what they term his "error" to a "confounding the deposits at mouths of rivers, with the possibilities of deposit in the bed." Captain Bayfield knew well the difference between a Lake and the mouth of a river, so that the Committee's supposition is trifling. And on the other hand, although the question relates solely to a Lake,

they draw all their arguments from rivers, thus falling into the very "error" which they ascribe to him.

The true question to be decided is this: Is there a sufficient current in this shallow part of Lake St. Peter to keep open a ship channel supposing it to be made? The committee assume that there is; but Captain Bayfield assumes that there is not. He evidently considers the whole of this part of the Lake as being slack water, and that deposits are made in the present channel as well as in other parts of the Lake. The committee acknowledge that the "velocity in the Lake is less than in the river above and below," but still all their observations assume, that there is a considerable current all through the Lake. It is so long since we were on Lake St. Peter that we have almost forgotten its precise character, but our impression is events, this is Captain Bayfield's supposition, that it is a dead level, without any perceptible current except where the river enters and where it leaves the Lake. At all and he must know the Lake well. If this supposition be correct, then, although the Lake may be deepened, it will require the constant action of a dredging machine through every season to keep the channel clear, and this expense must be taken into account in making the calculation.

We have not made these remarks for the purpose of throwing any obstruction in the way of deepening the Lake, but in order to call the attention of those interested to the point at issue, that every question connected with the proposed public improvement may be satisfactorily cleared up before proceeding to action in the case. It will be necessary, then, before submitting the plan to the Legislature, to ascertain by actual survey what current, if any, there is in this shallow part of Lake St. Peter, what is its rate per hour. It is possible, that if the deepened channel did require an annual dredging, the improvement would still be profitable when compared with present expenses and delay, but the true state of affairs should be well understood at the beginning.

But however favourable the report may be, this is not an improvement that is to take precedence of all others, as some of its supporters warmly imagine! It would benefit the City of Montreal, no doubt; but to the rest of the province it would be almost immaterial, because

there is a good navigation at present, and it matters but little to the upper parts of the province whether Montreal or Quebec be their shipping port. Several barges with up-country produce went direct from Kingston to Quebec last year, and there discharged their cargoes, and took in their lading of upward freight, and it is probable that this plan will be extensively adopted. If it should become general, the deepening of Lake St. Peter will be a matter of but little consequence to the country in general. Be this as it may, the attempt to exalt this improvement above every other is such an *overdoing* as may prove to be an *undoing*, by raising a prejudice against the work altogether in all other parts of the country, thus blocking up the way instead of opening it for united action on the subject.

With these remarks we now present the following

#### REPORT

*Of the sub-Committee of the Board of Trade, appointed to enquire into the practicability of deepening Lake St. Peter.*

The undersigned, appointed by the Board of Trade a committee to wait on Mr. Hall, the Collector of Customs, to examine Captain Bayfield's report, and for other objects connected with the enquiry as to the practicability of Lake St. Peter being made of sufficient depth of water, at the season of the year when the water is lowest, to admit vessels drawing 16 feet, beg to report as follows:

That pursuant to their instructions, they waited on Mr. Hall, and examined at his office a chart of the Lake, drawn up by Mr. Thompson, which chart was made from a survey made by Mr. Thompson under the orders of the Commissioners appointed to procure such survey—and said chart being complete in every respect giving the depth of water all over the Lake, your committee thought the same amply sufficient for every purpose. Your committee also examined Mr. Thompson as to the nature of the soil at the bottom of the Lake, and as to the practicability of deepening it. Mr. Thompson stated that the bottom (as far as he could tell from putting posts down) consisted of tenacious blue clay, with a very light covering of sand, without stones, and that almost the only obstacle to the dredging out a channel through the same, would be the oak timber lying at the bottom; but this, when found out, could be shewn to persons willing to remove it free of cost;—that, in his opinion, the channel, when once deepened, would not fill up, if made where the present line of deepened water runs, on account of the strong current; the present light coating of sand, an inch or two only, shews little danger on that score. Indeed there is more proba-

bility of the current wearing it deeper, than of its becoming more shallow, as the action of the current is to fill up the Lake at the sides with debris, and to make the channel deeper, the same as appears to have happened in many parts of the valley of the St. Lawrence.

Mr. Thompson also calculated the expense of dredging the work, the only mode in his opinion, that exists, that would give permanent satisfaction,—he estimated it at about £20,000 at the utmost, and that with extraordinary exertions the dredging would be done in one season, but at all events, with anything like good management, in two.

Your committee also perused the extracts from the Journals of the House of Assembly of Lower Canada, relating to the deepening of the Lake, and the petitions heretofore made to that body from the merchants of Montreal, the evidence being therein given of certain masters of schooners, whose opinion is, generally speaking, against the permanency of any dredging; but as these persons not only differ between themselves, but also from all other surveyors or examinations of the soil of the bottom of the Lake, it may be presumed that their evidence is but little worth.

The evidence also of a pilot stating the bottom to be rocky, may be thrown aside for similar reasons.

The report of Mr. Thomas Porteous and others, who were willing to contract to deepen the Lake for the sum of £30,000, and to keep the channel open for three years, and who caused the bed of the proposed channel to be pierced with augers at various depths, so as to draw up portions of the soil,—and which soil was submitted to Colonel By, of the Royal Engineers, who pronounced it to be of such tenacity, that when once dredged out there would be no danger whatever of the channel being again filled up,—seems to your committee to deserve great attention and to be very conclusive.

Your Committee also perused Captain Bayfield's report, which, together with his examination before the House of Assembly, goes against the practicability of deepening the Lake, in consequence, as your committee consider, of erroneous reasoning. Capt. Bayfield states the bottom to be clay with a stratum of sand upon it; he states the islands of the Lake to be also blue clay, and that in digging wells in the neighbourhood of the Lake, the strata are, first of sand, and then the same kind of clay. Captain Bayfield argues from these facts that this clay is an alluvial deposit, and that the same operation is going on in the Lake, viz: the formation of shoals and ultimately island in the *slack water*. Now, it appears, to your committee to be exactly the reverse as regards the main current. The blue clay is the original bed, covered probably with sand like the rest of

the neighbourhood, which sand in the centre of the river has been washed away by the current, excepting only the very coarsest particles now on the top of the clay—that the very formation of shoals in *slack water* proves that the current in the *centre* has a tendency to become deeper in lieu of filling up,—the natural tendency of all rivers being to confine themselves more and more, unless in passing through high banks.—The greater part of the valley of the St. Lawrence appears formerly to have been one Lake, which by shoals forming in *slack water*, and the current wearing a deeper and deeper bed in the centre, eventually made the Lake into a River, having low flat lands at its sides. Rivers, when they first were formed from springs and waters from the lands, ran, doubtless, over a large extent of surface,—were, in fact, all lakes; but in time the beds were formed by the rapidity of the streams wherever the accidental depth caused a greater current than elsewhere. Such beds became deeper and deeper, their debris filled up the shallower parts, and in time the Lake became a River.

In fact, it appears to your committee, that there is little fear of a Lake filling up, (when the current is strong,) in the deepest channel, especially if that channel is made deeper artificially; its tendency, your committee imagine, is to become deeper still from the natural causes.

Water, it is well known, will hold many heavy matters, as sand or clay, in suspension, in proportion to the velocity of the current. In the deepest part of a running stream, where the current is strongest, these matters are held in suspension, but such proportions as come over shallower portions at the sides, deposit a part of these suspended matters,—the channel becomes deeper, the shoals shallower,—all that is proposed by dredging is to assist nature in this important work; were the soil anything but blue tenacious clay, the bed had been washed deep long since. Even limestone would have been carried away sooner than the clay, which will remain for ages before natural causes can remove it. At the same time, this clay is, of all matters, the easiest to remove by dredging, as its sides do not cave in, and the machine can be worked without fear of breaking.

Part of the error arises probably from confounding the deposits at mouths of rivers, with the possibilities of deposit in the bed. The current of a river, owing to its velocity, holding in suspension heavy particles of soil, meets at its mouth another stream at right angles, or otherwise not in the direction of its current, the velocity is retarded from the impinging of one current on the other, and a deposit takes place. In the main current of a river this cannot be the case—quite the reverse.

It is acknowledged certainly, that, as owing to the expanse of water in Lake St. Peter, the

velocity is less than in the river above or below, a deposit will and must take place, but such deposit will be chiefly in slack water, and will be immediately taken up again or washed from the bed on such shoals, so that the deposit will remain only for a short period of time.

With respect to the necessity of deepening the channel in Lake St. Peter, your committee scarcely think there can be any difference of opinion on the subject. From a document giving the names and particulars of seven ordinary sized vessels, viz: from 259 to 365 tons, old measurement, consigned to Messrs. Millar, Edmonstone & Allan, it appears the total expenses on such vessels amounted to £1594 11s. 1d.,—on deducting the towage up, which probably, even if the Lake were deepened, would have to be incurred £1059 2s. 7d, of which the lighterage alone cost £330 15s. 10d.—of thirteen vessels consigned to Messrs. Gillespie, Moffatt, Jamieson & Co., or rather voyages of vessels, the expense was

Total.....	£1916	8	9
Without towage up..	1146	13	5
Lighterage only.....	842	4	2

this including both spring and fall voyages, in the former case the expenses being small.

Such an enormous outlay would justify a considerable expenditure; indeed the extra expense of lighterage last year, owing to the shallowness of the Lake, has been estimated at £20000, and this year will probably be much more,—a sum sufficient to permanently render the channel sufficiently deep for the ordinary sized vessels.

Indeed, your committee think, that were the channel rendered 17 feet deep, that many of the seeking ships would come to Montreal for mixed cargoes; that is, flour, ashes, or other goods, in part, and fill up with deals or lumber; a fair share of the lumber trade indeed might be calculated on, as lumber could be furnished much cheaper than at Quebec.

Your committee refer to Mr. Thompson's explanations of his views, copies of which are annexed herunto, thinking them tolerably correct in the main, and shewing in a strong light the importance of the work, and also its practicability, in his opinion.

In conclusion, your committee would urge that a petition should be presented to His Excellency the Governor General, praying that he would cause enquiry to be made into the matter, and to give permission for a bill to carry out the object to be brought forward at the next sitting of the Legislature.

As to the mode of reimbursing the amount raised, your committee think a tonnage duty on ships coming through the Lake, would not

only defray the interest, but form a sinking fund to eventually pay off the principal.

All which is nevertheless humbly submitted.

J. T. BRONDGEEST.  
THOMAS CRINGAN.

Montreal, 20th April, 1841.

*Remarks on deepening a Channel in Lake St. Peter to the depth of 16 feet, for the safe passage of loaded vessels, by dredging.*

In the uncertainty of what power may be employed, it appears necessary to adopt a given power, acting in a given time, on a given space, as a means of comparison, with whatever power may be brought into operation. Let the steam dredging machine be said to be of 16 horse power, capable of working to the depth of 16 feet deep, clearing and bringing up 25 tons of mud, sand, gravel, &c. per hour: equal to 300 tons per 12 hours, or 600 tons in 24 hours. In Lake St. Peter, the water flows over a surface of blue clay, of considerable tenacity, the resistance of which is equal to weight. This blue clay in weight will be 18 cubic feet to the ton of 2240 lbs. avoirdupois. For a given quantity, let it be one mile in length, by 50 feet in breadth, and one foot in depth, this quantity is equal to 264,000 cubic feet. Allowing the dredging machine in Lake St. Peter to be in operation on the 12th May, and continue to the 13th November, not counting Sundays, and allowing 17 days for bad weather, accidents, &c., there will remain 140 working days. Hence the data are, one dredging machine of 16 horse power, raising 25 tons weight of clay, sand, gravel, &c. per hour, equal to 600 tons per 24 hours; the clay, &c. at 18 cubic feet per ton weight; the open season at 140 working days, and the space of quantity as a means of comparison, 1 mile in length, by 50 feet in breadth, and 1 foot in depth, equal to 264,000 cubic feet, equal to 1468 tons weight.

As the open season is short, the dredging machine must work with two sets of men, at 24 hours per day, raising in each 24 hours, 600 tons of clay, &c. The machine working at this rate will clear and deliver 14,667 tons in 24½ days, being one mile in length, by 50 feet in breadth, and one foot in depth. Hence, in 140 working days, the machine will excavate and clear a space of 5 7-10 miles in length, by 50 feet in breadth, and one foot in depth; and two such machines will double this work, giving the same length and depth, but 100 feet in breadth, or the same length and breadth by two feet in depth. That is, one dredging machine of 16 horse power, working 140 days, at 600 tons per day, will excavate and deliver 84,000 tons weight, equal to 1,512,000 cubic feet in one season; and two such machines will clear



3,024,000 feet in the same time. Every year may be said to add to the power of working machinery. In a late paper from Limerick, in Ireland, is noticed two powerful steam dredging machines, one of which on trial, in 20 minutes, excavated 38 tons of hard clay, mixed with gravel, which is 114 tons per hour, equal to 2708 tons per 24 hours, or one day; which is equal to the work of  $4\frac{1}{2}$  dredging machines, each of 16 horse power, of the present construction.—Allowing the Irish dredging machine to work at only 90 tons per hour, instead of 114 tons, this power will give 2160 tons per 24 hours, clearing each day a space of 38,000 cubic feet: and in one season of 140 working days, excavating 302,400 tons, and clearing a space of 5,443,200 cubic feet; equal to 5 miles in length, by 100 feet in breadth, and 2 feet in depth. It is of importance to the merchants of Montreal to ascertain, what is the power, the construction, and cost of this dredging machine, neatly hammered, but not polished, which last is a great additional expence.

By measurement on the chart of my trigonometrical survey and soundings of Lake St. Peter, in the months of August, September, and October, 1838, and '39, by these soundings, the quantity required to be excavated to form a channel of 16 feet in depth, by 100 feet in breadth, is 3,502,000 cubic feet, which with two dredging machines of 16 horse power each, will excavate and clear in three seasons, leaving 53 days for one dredging machine to work elsewhere, at the total expence of £3. 00. Say the three seasons will cost £40,000, the annual interest of which sum is £2400, at 6 per cent.—At present there may arrive at Montreal about 140 ships at most; it is allowed by the merchants that, if Lake St. Peter was deepened, at least 300 sail of ships, with full cargoes, would come to Montreal, even in the present state of the trade. A duty of only £20 on each ship, will produce a sum of £6000, thereby paying the interest of £2400, and leaving £3600 annually to pay up the capital of £40,000; and as the number of ships increase, the revenue will augment, and enable a powerful dredging machine to be constantly employed in keeping the channel clear and deep.

At present, from the shallowness of Lake St. Peter, the ships for Montreal are obliged to break bulk at Quebec, and incur heavy expences, and from Montreal to Quebec, to descend with only part of their loading; the loss of time and expence attendant on this state of commerce, is now averaged at £40,000 annually, giving to each ship the average charge of expence of about £330, which would willingly be exchanged for a duty of £20, and if levied on

each passage over the lake, would raise a revenue of twice £6000, annually increasing with the trade of the country.

*Estimate of the first season of two Dredging Machines, each of 16 horse power, to deepen a channel in Lake St. Peter, to the depth of 16 feet.*

To the cost of two dredging machines, each of 16 horse power, each in a well constructed vessel, ready to work, each of neatly hammered iron, not polished, at £6000 each machine, vessel, &c.....	£12000	0	0
To six lighters, each of 50 tons, at £150 each.....	900	0	0
To ten cords of wood per day each machine, or twenty cords per day for both, at 5s. per cord, 140 days.....	700	0	0
To contingencies, &c.....	450	0	0
	<hr/>		
	£14050	0	0

To one superintendent.....	450	0	0
To two engineers, each £150...	300	0	0
To six men each vessel, 12 men at £3 10s. per month, for six months.....	250	0	0
To five men to each lighter, at £3 10s. six months.....	650	0	0
	<hr/>		
One set at twelve hours per day	£ 1632	0	0

#### PROVISIONS.

To 45 persons at 1s. 3d per day, for six months, say £3 per day.....	540	0	0
Pots, ketiles, &c. freight &c...	20	0	0
	<hr/>		
Provisions for one set for 12 hours.....	£560	0	0

#### Total expenditure of the first year.

To cost of dredging machines, lighters, fuel, &c.....	14050	0	0
Of one set of persons, £1632—2 sets for 24 hours.....	3264	0	0
Provisions for do. £560—do do	1120	0	0
To contingencies.....	1916	0	0
	<hr/>		
Total.....	£20600	0	0

*Expense of the second year.*

To interest at six per cent on £20,000.....	£ 1200	0	0
Repairs of machines, vessels, lighters, &c.....	500	0	0
The employment of 90 persons as the first year.....	3264	0	0
The cost of fuel.....	700	0	0
Ditto of provisions, &c.....	1120	0	0
To contingencies.....	516	0	0
<b>Total cost of the second season.</b>	<b>£ 7300</b>	<b>0</b>	<b>0</b>

*Expense of the third year.*

To the interest of £27,300 at six per cent.....	1638	0	0
Repairs of vessels, machines, lighters, &c.....	500	0	0
The employment of 90 persons, as the first year.....	3264	0	0
The cost of fuel.....	1120	0	0
To contingencies.....	478	0	0
<b>Total expense of the third year.</b>	<b>£ 7700</b>	<b>0</b>	<b>0</b>

Hence the first year, £20,000; the second year, £7300; the third year, £7700,—total £35,000; extra contingencies, £5000, making the gross total £40,000, being barely the sum of the annual expense, charges, &c. on the present commerce of Montreal for one year, on account of the shallowness of Lake St. Peter.

If one powerful steam dredging machine similar to the two now employed at Ballynagher in Ireland, was brought into operation on Lake St. Peter, it would be deepened to the above extent in less than two seasons, and the expense lessened by at least one-fifth of the present estimate. But if two such steam dredging machines were brought into operation, (the space of £3,502,000 cubic feet, the quantity required to be removed) they would accomplish the above work in five months of the first season, at probably a cost of not more than £30,000, and the second season would produce a revenue on ships passing the Lake with full cargoes.

DAVID THOMPSON.

## PRESERVATIVE FOR TIMBER.

We published an article in the March number of the *Review*, on the Kyanizing process for preserving timber. The following letter which was addressed to the Montreal *Herald*, refers to that process, and mentions a recent discovery which appears to be preferable. With respect to the objections here urged against Kyan's process, we do not think them of much weight, because the plan has been extensively adopted, and these supposed evils of it would have been manifest before now had they existed. Facts could have been appealed to, instead of urging mere suppositions, had there been any facts to adduce against it. But if Sir William Burnet's plan be cheaper, and a better preservative than Kyan's, of course it deserves the preference, and we therefore publish it here, as we have no other object in view than the public good. We wish the writer had mentioned any experiments to which Burnet's plan may have been submitted, as nothing of the kind has yet reached us, and without experiments no discovery of the kind can establish its merits.

Has timber thus prepared been tried in the Woolwich fungus pit for five or six years?—The following letter is barren of all explanation, but as it promises fair we present it to the public:—

"The attention of the Canadian public has been forcibly called to the subject of the preservation of timber by Mr. Kyan's process just at the time when a new method has been announced in England, which is both safer, more effectual, and more economical. Mr. Kyan's mode was adopted throughout Europe with rapidity, and the attention of many chemists was drawn to its probable influence on the public health. Dr. Schweig of Carlsruhe has just published a brochure in which he maintains that the subject calls for the earnest attention of government, and adduces various solid reasons.

1st.—From the ready absorption of the solution (of Corrosive Sublimate) through the skin the workmen are exposed to much danger in the mere manipulation.

"He gives various precautions to be taken to diminish the danger.

2d.—As a matter of medical police, it is proper to enquire whether under certain circumstances mercury may not be volatilized from wood, thus prepared, and produce its usual dangerous effect, upon those exposed to the vapour.

“The occurrence of prejudicial effects from this cause has been denied, because the crews of vessels built of Kyanized timber have returned healthy, after long voyages, even in tropical latitudes. Experience may not have hitherto shown that dangerous consequences have followed; but further trials are wanting to establish this point satisfactorily.

“3d.—It need hardly be said that wood thus impregnated with corrosive sublimate is wholly unfitted for the making of vessels to hold articles of food or drink either for the use of man or beast.

“4th.—A fourth and very important consideration is, that Kyanized wood when used up cannot be safely employed for fuel like ordinary wood; the mercury contained in old wood might thus be volatilized and spread in vapour through the house, leading to the slow destruction of life by protracted illness. It could only be safely burnt in close stoves or vessels where there is a free current of air to carry off the mercurial vapour.”

“The chips or cuttings of wood of this description, might unknowingly be employed as fuel by labourers and others engaged in working the timber.

“Dr. Schweig says, that an equal substitute may be found in the sulphate of copper (blue vitriol). Copper not being volatilizable by heat is safer in that respect, but wood so prepared is equally unfitted for domestic utensils as when Kyanized. In truth, blue vitriol is not as good a preservative as Corrosive Sublimate.

“Sir William Burnet has discovered that Chloride of Zinc is greatly superior to both in the preservation of wood, and still more so in the preservation of sailcloth and cordage. I

believe he has secured a patent for this discovery, and that it is deservedly in England superseding the more dangerous and expensive process of Mr. Kyan.

“I have been induced to present Sir William Burnet's process to the attention of the public, as in every way more advantageous to the manufacturer and consumer, and as the lives and health of thousands of individuals would be endangered by the extensive adoption of Mr. Kyan's plan.”

In connexion with this plan for preserving timber from rot, we have met with another for preserving it from fire. Mr. Montgomery, of Point Frederick, near Kingston, professes to have discovered a liquid mixture that will protect wood from fire, and has made a satisfactory experiment of its virtues. A small model of a house, made of dry pine boards, was washed over with the liquid, and then in presence of about fifty persons it was submitted to the action of fire for nearly an hour, without being ignited. It was then broken up by the spectators. The liquid when applied is absorbed by the wood, and the heat draws it to the surface, on which it forms a solid crust that resists fire. The wood may be charred a little, but does not blaze or become a live coal. Further experiments are contemplated, and if they be equally satisfactory the discovery is a valuable one, as the article is cheap, costing only about 5s. per gallon. Whether exposure to the weather would destroy its protecting power is yet to be determined, as also what effect a coat of paint would have; but if the composition preserves from fire, it will be valuable though it should have to be applied every year. In this country of wooden buildings, a matter that will preserve them from the frequent ravages of fire will be a public benefit.

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### THE GREEN-WOOD SHRIFT.

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[The following is versified from an anecdote of George III., inserted from a publication of the Rev. Mr. Ctabbe's, in the Church of England Magazine.]

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Outstretched beneath the leafy shade  
Of Windsor Forest's deepest glade  
A dying woman lay;  
Three little children round her stood,  
And there went up from the green wood  
A woful wail that day.

“O mother!” was the mingled cry,  
“O mother, mother! do not die  
And leave us all alone.”  
“My blessed babes!” she tried to say,  
But the faint accents died away  
In a low sobbing moan.

And then life struggled hard with death,  
 And fast and strong she drew her breath,  
 And up she raised her head;  
 And piercing through the deep wood mazo  
 With a long, sharp, unearthly gaze,  
 "Will he not come," she said.

Just then, the parting boughs between,  
 A little maid's light form was seen  
 All breathless with her speed;  
 And following close, a man came on,  
 (A portly man to look upon,  
 Who led a panting steed.

"Mother!" the little maiden cried,  
 Or e'er she reached the woman's side  
 And kissed her clay cold cheek,  
 "I have not idled in the town,  
 But long went wandering up and down  
 The minister to seek.

"They told me here—they told me there:  
 I think they mocked me every where;  
 And when I found his home,  
 And begg'd him on my bended knee,  
 To bring his book and come with me,  
 Mother! he would not come.

"I told him how you dying lay  
 And could not go in peace away  
 Without the minister.  
 I begg'd him for dear Christ, his sake,  
 But oh! my heart was fit to break--  
 Mother! he would not stir.

"So, though my tears were blinding me,  
 I ran back, fast as fast could be,  
 To come again to you;  
 And here close by, this Squire I met,  
 Who asked (so mild) what made me fret;  
 And when I told him true,

"I will go with you, child," he said,  
 'God sends me to this dying bed,'  
 Mother, he's here hard by."  
 While thus the little maiden spoke,  
 The man his back against an oak,  
 Look'd on with glistening eye.

The bridle on his neck flung free,  
 With quivering flank and trembling knee,  
 Pressed close his bonny bay;  
 A statelier man—a statelier steed,  
 Never on greensward paced, I rede,  
 Than those stood there that day.

So while the little maiden spoke,  
 The man, his back against an oak,  
 Looked on with glistening eye  
 And folded arms; and in his look,  
 Something that, like a sermon book,  
 Preached—"All is vanity."

But when the dying woman's face  
 Turned towards him with a wishful gaze,  
 He stopped to where she lay,  
 And kneeling down, bent over her,  
 Saying—"I am a minister--  
 My sister! let us pray."

And well without, or book or stole,  
 (God's words were printed on his soul,)  
 Into the dying ear  
 He breath'd, as 'twere an angel's strain,  
 The things that unto life pertain,  
 And death's dark shadows clear.

He spoko of sinners' lost estate,  
 In Christ renewed—regenerate--  
 Of God's most blessed decree,  
 That not a single soul should die  
 Who turns repentant with the cry  
 "Be merciful to me!"

He spoko of trouble, pain, and toil,  
 Endured but for a little while  
 In patience, faith, and love,  
 Sure, in God's own good time, to be  
 Exchanged for an Eternity  
 Of happiness above.

Then, as the spirit ebb'd away,  
 He raised his hands and eyes, to pray  
 That peaceful it might pass;  
 And then--the orphans' sobs alone  
 Were heard, as they knelt every one  
 Close round on the green grass.

Such was the sight their wond'ring eyes  
 Beheld, in heart-struck, mute surprise,  
 Who reined their coursers back,  
 Just as they found the long astray,  
 Who in the heat of chase that day  
 Had wander'd from their track.

Back each man rein'd his paving steed,  
 And lighted down, as if agreed,  
 In silence at his side;  
 And there, uncovered all they stood--  
 It was a wholesome sight and good  
 That day for mortal pride.

For of the noblest of the land  
 Was that deep-hushed bare-headed band;  
 And central in the ring,  
 By that dead pauper on the ground,  
 Her ragged orphans clinging round,  
 Knelt their anointed King.

## THE KENT ELECTION.

So much gross misrepresentation has been circulated respecting the late election for the County of Kent, that we are induced to advert to the subject in order to lay before the public the real merits of the case. It is not merely the Kent Election that is concerned, but if the delusive statements which have been put forth respecting it be allowed to pass without contradiction, they will have an influence on future elections, and the province will be involved in contention and cost on points which could never be disputed if ordinary honesty and intelligence prevailed. It is therefore necessary to check the factious presumption which, to gratify its personal malevolence or public hostility, misrepresents the simplest facts and plainest question that could engage general consideration. If the sciolists who have muttered their accustomed quantity of ill-considered nonsense on this subject find that they have prepared a rod for their own back, they must submit to punishment with the best grace they can, for they have provoked it. They "know a little, presume a great deal, and so jump to a conclusion;" and therefore they need not be surprised to find that they sometimes jump into a quickset hedge, or impale themselves on the horns of a dilemma, or plunge into the whirlpool of palpable contradictions, or fly off in a tangent from the regions of common sense into the limbo of chaotic abortions, there to make sport for the jeering anarchy old.

The facts of the Kent election are briefly these. The Candidates were Joseph Woods, Esq., and the Hon. S. B. Harrison; and the Sheriff of the District was the Returning Officer. At the close of the poll on Saturday night, Mr. Woods had a majority of 43, but a scrutiny was demanded by Mr Harrison's friends, on the ground that illegal votes had been taken for Mr. Woods. This gentleman refused to go into a scrutiny. The Sheriff adjourned until Monday, but Mr. Woods still refused. To give them further time for consideration the Sheriff adjourned again until Thursday, when Mr. Woods continued to refuse going into a scrutiny, and the Sheriff made a special return to the writ, setting forth the facts.

The questions that arise here then are—Had the Sheriff a right to grant a scrutiny? and when one party refused to go into it, was it right to make a special return? Both these questions have been denied, but we affirm them both. The Sheriff had not only a perfect right to grant a scrutiny, but we believe that he would have been justifiable in going into it, notwithstanding Mr. Wood's refusal to concur therein, letting judgment go by default,—for there is at least one precedent for this in English elections, in which the Sheriff granted a scrutiny *against the consent of one of the Candidates*, and no complaint was made on that ground; but as this point does not arise now we need not examine it. At all events, the Sheriff has not injured Mr. Woods by making a special return, for if he had had a majority of legal votes the scrutiny would have declared it, and the refusal to concur in a scrutiny was tantamount to a confession that he had not such a majority. He and his friends say, it is true, that they refused going into a scrutiny with such a biased judge; but they have produced no evidence to prove that the Sheriff was biased against Mr. Woods,—the admission of illegal votes in his favour proves that he was not. But if he had been so biased, they were there to protect their own rights, and if they had seen them invaded they had always a remedy by a protest and petition against the return; so that they have made out no case whatever for refusing to go into the scrutiny; while the refusal makes a strong case against them. But now for the question of right.

Premising that our elections are governed by the English election laws, except as may be otherwise provided, we make the following extracts from *HEYWOOD on County Elections*, page 629.

"After the case of Ashby and White, and the resolutions of the House of Commons, had encouraged returning officers in the assumption of a judicial character, we find some cases in support of the legality of a scrutiny; such are those of Southwark, 7th February, 1711; Oxfordshire, 18th November, 1754; Westminster, in 1750, and in 1784; and Sudbury, in 1780:—all of which will be stated hereafter. The 11th Geo. chap. 18, enacts that, at the elections of

members for the City of London, if, after the declaration of the numbers at the poll, a scrutiny shall "be lawfully demanded," it shall be granted. So that it takes for granted, that a scrutiny may be lawful in itself, and may be lawfully demanded. The late act of the 25th Geo. III. chap. 84, has removed all doubts upon this subject, and not only empowered returning officers in general to grant a scrutiny, but regulates the mode of proceeding at it, as will be seen presently."

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"In the case of Guilford just cited, the returning officer had proceeded to the scrutiny without the consent of one of the candidates, but the circumstances of the case rendered it unnecessary to make any objection on that account. At the close of the seventeenth century, and the beginning of the last, the legality of a scrutiny, and the power of the returning officer to grant it, do not seem to have been in dispute. This perhaps may have been owing to its never having been granted against the consent of the candidates, where it became material for them to contest it. On the other hand, many instances, about that time, are found in the journals of the returning officer having refused a scrutiny; and many petitions allege such refusal as a ground of complaint against him, or for impeaching the election of the sitting member. Hence it should seem that it was by no means settled, that the only object of a scrutiny was to satisfy the conscience of the returning officer as to the legality of the votes he had received upon the poll, or that he had a discretionary power to refuse it, contrary to the wishes both of candidates and voters."

\* \* \* \* \*

"The 25th Geo. III., c. 84, s. 1, by which the elections of all counties and places, not under the regulation of any particular acts of parliament, are to be conducted, expressly makes it discretionary in the Sheriff to grant or refuse a scrutiny; for the poll being closed, and the name or names of the person or persons who have the majority of votes being declared, the returning officer or officers must "forthwith make a return of such person or persons, unless the returning officer or officers, upon a scrutiny being demanded by any candidate, or any two or more electors, shall deem it necessary to grant the same, in which case it shall and may be lawful for him so to do, and to proceed thereupon."

\* \* \* \* \*

"A modern scrutiny is only a continuation of the poll; it is a severance of the judicial capacity, which of late has been exercised by returning officers, from the ministerial. Conformably to the modern practise, it may be argued that the returning officer ought to ad-

mit no persons to poll until he has decided upon their right to vote; and every vote that is found upon the poll must, as against him, be presumed to be a good one, because, if it was not, it ought not to have been found there. A scrutiny therefore, it may be said, ought never to be granted (we are not now considering what may be done *with consent of the candidates and voters*;) except where, from subsequent information, it is discovered that invalid votes have been admitted; and even then it may be doubted whether it ought to extend to all the voters indiscriminately, or be confined to those only which are suspected."

Enough as to the right of a returning officer to grant a scrutiny. The only wonder is how it could ever have been denied in the face of an act of parliament expressly granting that right, and prescribing the mode of its exercise. The only limitation to the right is, that the scrutiny should not be continued longer than the time for returning the writ—that is, by the Provincial Act, 3d William IV., c. 12, sec. 3, (1833) within *ten days* after the close of the election.

Having thus disposed of the question as it relates to the scrutiny, we now take up the special return, on which we make the following extract from MALE on the law of elections, page 229.

"Thus the writ requires the Sheriff to return two members duly chosen. But where the returning officer of a city or borough has made no return to the precept, or in cases of double returns, or of mistaken returns, or where the election cannot be determined by the time the return is required to be made, the Sheriff does not literally comply with the writ; for though he ought to make some return, yet it is evident in all these cases, he does not return two members duly chosen; for the returns supposed are a confession, either that no choice, or a doubtful one has been made; and in the third case, the return itself, as far as it pretends to be of members *duly chosen*, is disproved by the judgment of the House, by placing others in their stead; and to say, notwithstanding the cases put, or which may be put, that the letter of the writ shall be complied with, would, in some cases, be to compel a man to do an impossibility. Upon this reasoning, therefore, the Sheriff, being under the necessity of making *some return* upon a general writ by the day mentioned therein, supposing him guilty of no neglect, would stand excused, if upon such a writ he were to make a special return; and if such special return were true, it must, both upon principle and precedent, be a legal return."

Thus, in the cases put, or "which may be put," if the Sheriff make a special return, and that special return be true, "*it must, both upon principle and precedent, be a legal return.*" In the case in question the Sheriff could make no other return than a special one, unless he had gone into the scrutiny without Mr. Woods' consent, which we think he had a perfect right to do.—But having waived this, he could not return Mr. Woods as being "duly chosen," for that was as doubtful as ever; and was flatly denied by the opposite party. He had an apparent majority, but it was asserted to be fictitious, and therefore of no value; and as he refused to have the question decided in the proper manner by a scrutiny, this refusal increasing the conviction of the fictitious nature of his votes, he could not be returned as a member duly chosen. "A modern scrutiny is only a continuation of the poll," says Heywood, and until it was brought to a close the Sheriff could not make a decision. His special return is not only legal, but the only one he or any other man could make under the circumstances. If Mr. Woods have a legal majority, it is his own fault that he is not legally returned as member. It is not many men that, when the Sheriff had granted a scrutiny, would have refused to go into it; thereby furnishing a presumption against themselves.

The unscrupulous partizans who have so far misrepresented this affair may now understand that all their denunciations recoil on themselves. They have threatened to arraign the Sheriff for high crimes and misdemeanours, and bid him surely expect a committal to gaol for his presumption in daring to act according to law, against the will of the empty babblers who would rule the province by the force of nonsense and audacity; but they will find, that instead of soaring like eagles with lightning vengeance in their grasp, they must flee to the murky shade, and hoot over their ruined hopes with other patriotic owls. It is doubtless a grievance that the law should interfere between them and their revenge, but they have proved that they are not fitted for empire, although they are very desirous of ruling the province according to their own despotic will, despots under the mask of liberty.

The course that has been taken in this business would have been incredible if we had not known how far party spirit usurps dominion over party men. It would appear as if the

claims of party were considered paramount over every other, and that facts are regarded merely as they affect the party, illustrating the truth of the witty peer's definition of orthodoxy when he said: "Orthodoxy, my Lord, is my doxy; heterodoxy is your Lordship's doxy." And this party spirit claims all right and good for itself, and fulminates its anathemas against all who question its decisions, or differ from its prescribed routine. These threatening alarms are merely empty sound, but the whole system of party tactics has a deeply injurious effect on the public welfare. On this point we quote the following remarks from Lord Brougham on the effects of party:

"But let us, even in our pride of enlightened wisdom, pause for a moment to reflect on this most anomalous state of things,—this arrangement of political affairs systematically excludes one half of the great men of each age from their country's service, and devotes both classes infinitely more to maintaining a conflict with one another than to furthering the general good. And here it may be admitted at once that nothing can be less correct than their view, who regard the administration of affairs as practically in the hands of only one half of the nation, whilst the excluded portion is solely occupied in thwarting their proceedings. The influence of both parties is exerted, and the movement of the state machine partakes of both the forces impressed upon it; neither taking the direction of the one nor of the other, but a third line between both. This concession, no doubt, greatly lessens the evil; but is very far indeed from removing it. Why must there always be this exclusion, and this conflict? Does not every one immediately perceive how it must prove detrimental to the public service in the great majority of cases: and how miserable a makeshift for something better and more rational it is, even where it does more good than harm.—Besides, if it requires a constant and systematic opposition to prevent mischief, and keep the machine of state in the right path, of what use is our boasted representative government, which is designed to give the people a control over their rulers, and serve no other purpose at all? Let us for a moment consider the origin of this system of party, that we may the better be able to appreciate its value and to comprehend its working.

"The origin of party may be traced by fond theorists and sanguine votaries of the system, to a radical difference of opinion and principle; to the "*idem sentire de republica*" which has at all times marshalled men in combinations or split them in oppositions; but it is pretty plain to any person of ordinary understanding, that a far less romantic ground of union and separation has for the most part

existed—the individual interests of the parties; the “*idem velle atque idem nolle* ;” the desire of power and plunder, which, as all cannot share, each is desirous of snatching and holding. The history of English party is as certainly that of a few great men and powerful families on the one hand, contending for place and power, with a few others on the opposite quarter, as it is the history of the Plantagenets, the Tudors, and the Stuarts. There is nothing more untrue than to represent principle as at the bottom of it; interest is at the bottom, and the opposition of principle is subservient to the opposition of interest. Accordingly, the result has been, that unless perhaps where a dynasty was changed, as in 1633, and for some time afterwards, and excepting on questions connected with this change, the very same conduct was held and the same principles professed by both parties when in office, and by both when in opposition. Of this we have seen sufficiently remarkable instances in the course of the foregoing pages.”

Examples are then given, and Lord Brougham proceeds to argue from them as follows:

“It cannot surely in these circumstances be deemed extraordinary that plain men, uninitiated in the aristocratic mysteries whereof a rigid devotion to party forms one of the most sacred, should be apt to see a very different connexion between principle and faction from the one usually put forward, and that without at all denying the relation between the two things, they should reverse the account generally given by party men, and suspect them of taking up principles in order to marshal themselves in alliances and hostilities for their own interests, instead of engaging in these contests because of their conflicting principles. In a word, there seems some reason to suppose that interest having really divided them into bands, principles are professed for the purpose of better compassing their objects by maintaining a character and gaining the support of the people.

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The evils which flow from this manner of conducting public affairs are manifest. The two greatest unquestionably are, first, the loss of so many able men to the service of the country, as well as the devotion of almost the whole powers of all leading men to party contests, and the direction of a portion of those men to obstructing the public service instead of helping it; and next, the sport which, in playing the party game, is made of the most sacred principles, the duping of the people, and the assumption of their aristocratic leaders to dictate their opinions to them. It is a sorry account of any political machine that it is so constructed as only to be kept in order by the loss of power and the conflict of forces which the first of these faults implies. It is a clumsy and

unwieldy movement which can only be effected by the combined operation of jarring principles, which the panegyrists or rather the apologists of these anomalies have commended. But it is a radical vice in any system to exclude the people from forming their own opinions, which must, if proceeding from their own impulses, be kept in strict accordance with their interests, that is with the general good; and it is a flaw if possible still more disastrous, to render the people tools and instruments of an oligarchy, instead of making their power the mainspring of the whole engine, and the grand object of all its operations.

“Of this we may be well assured, that as party has hitherto been known among us, it can only be borne during the earlier stage of a nation’s political growth. While the people are ignorant of their interests, and as little acquainted with their rights as with their duties, they may be treated by the leading factions as they have hitherto been treated by our own.”

Every man who is not incurably infected with the hungry, wolfish spirit of party, will admit the disadvantages of excluding from the public service one half of the very men who are most competent to perform it. The usual resource of partizans when pressed on the point, is to say they have “no confidence” in these men. But this outburst of cant is a mere subterfuge; for what does it mean? that they have “no confidence” in their ability or integrity?—No; but that they may not advise such measures as are pleasing to these partizans. Now, not to observe that mere advice harms no one,—that it is the province of others to decide after hearing all advice,—and that in a multitude of counsellors there is safety; the reply proceeds on the false assumption, that these public servants are at liberty to form their own plans, and pursue their own policy; whereas the true doctrine is, that it is the people who should originate them, and when they are properly instructed they will do so; for as Lord Brougham remarks, the system of party rule is only adapted to the earliest stages of a nation’s growth. It governs by a party, and for a party, and makes the people mere tools for the advancement of party leaders. On this plan their advice results in immediate action, and the people are drilled to lend it their tacit approval; but if a higher standard were raised the people would guide the state, instead of being merely a kind of check on those who do guide it. Some discretionary action must be allowed in minor matters, but all great principles and measures should originate with the people, and every man



who is capable and willing to execute their will should be eligible to the work, instead of being rigidly excluded therefrom by the shrivelled-up selfishness of intolerant party spirit, ruling solely for its own advantage to the people's injury. As the political education of the people becomes complete, there will be less or none of that infirm vacillation of purpose which forms such a convenient refuge for party selfishness. Great principles will be steadily maintained, and official functions become more ministerial, so that government will receive the full benefit of its popular organization, and be freed from the incubus of blind party craft, without being resolved into a democracy. Mere party is as intolerant as mere despotism, and pursues the same ends by other means. Its name and badge must be assumed, its livery worn, its mandates obeyed to the letter, its whole servile spirit imbibed, and its example copied in all its grovelling details, or the decree of banishment is enforced with all the rigour of an oriental tyrant. The true spirit of liberty will overturn this odious despotism, and while steadily pursuing its own lofty designs will throw open its portals to all who are willing to enter therein. The spirit of liberty will chase the spirit of monopoly, and a political monopoly is not the least odious or objectionable.

A mixed government requires a controlling mind, as well as fixed principles for its general guidance. The people should furnish the latter: the former is the province of the Executive. Where both are found the government best fulfils its design by being open to every competent man who will enforce those principles. The great fallacy of party arguments and assertions is, the assumption that public servants are to form the character of the government, instead of to receive the character impressed by the people; or, in other words, that they are to do their own will, instead of the will of those whose servants they are. Let it once be generally understood that public officers are but ministers of the public will; and let the people express that will in wisdom, with consistency, firmness, and moderation; and then political employments will be as open for competition as any other employments, and the public will be faithfully served as a necessary consequence. If it be said that some competent men would still be excluded from office by

not agreeing with the general will, and therefore there would be but little difference; we reply that there would be this difference, that no man would be rendered incompetent for office by any act of the government, but by the cast of his own character, in fact a disqualification; and that if there were no difference at all, but precisely the same persons were ineligible in one case as in the other, still this is a far less offensive way of stating the fact, and is therefore much less likely to create enmity, bitterness, hostile parties, "envy, hatred, and all uncharitableness." By the approved rules of party tactics, an opponent is rudely told that he is not fit for office, accompanied with many sharp denunciations of his peculiar principles; but on the opposite plan, he is left to infer the fact of his being ineligible for office, if it be a fact, by a due consideration of its declared duties compared with his own character. Thus, in this case, the exclusion is a natural effect, with which no one can quarrel; but in the other case it is a voluntary act, so performed as to provoke a quarrel. Hence, if the result was in every case the same, the means by which it is attained are so widely different as to produce an instantaneous preference of one over the other in all well constituted minds. But it is not to be supposed that the result would be in every case the same, far from it. Establish the government on fixed principles, in accordance with the general will and interest, and render its offices accessible to every man who is able and willing to fill them, and the public mind and interest will be more frequently consulted, instead of the interests of party; public men will take a broader view of public matters; party barriers will be broken down, and party hostilities cease; the most expansive plans will be adopted for the public service, and the strength of general union will mightily advance the common prosperity. This is not mere speculation. It is but a literal transcript of what has been. Lord Chatham's administration was formed upon this plan, and before its close there was hardly any difference of party in England. All had united in the country's service, and party strife was extinct. And there is not only nothing to prevent such a consummation here, but much to promote it if the people take a comprehensive view of their own interest. The public welfare is one and indivisible,

and it will prosper just in proportion as party strife and hot-headed partizans are discountenanced by those who have to bear the brunt and burden of all, and who will find that party triumph is not synonymous with the public good.

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## THE INDIAN NATIONS.

THE condition and prospects of the Indians within the province, is a subject of considerable interest both to the statesman and the philanthropist. No plan of general improvement can be complete unless it include the means of elevating the aboriginal tribes to an equality with their white brethren in condition and character. If the scattered remains of the once proud and mighty possessors of the whole land are allowed to continue in a state of degradation or ruinous decay, a mountain of reproach will rest on those who have supplanted them as lords of the soil, without imparting any equivalent therefor, supplanting only to destroy, instead of to civilize and save. That the demon of destruction has generally marched in the white man's track through the vast forests of the west, is but too well known: yet this is not a necessary consequence of his presence, or superior civilization would be but a superiority in evil rather than good, a curse rather than a blessing. There must be some redeeming principle in the white man's superiority, some power operating with him sufficient to stay the iron tread of remorseless destiny, and enable him to impart his knowledge to barbarous nations, without communicating death therewith. The dark shadows that have fallen on the red men's path, the bitter tempests that have hurled over their heads, uprooting the forests on their wigwams while they slept, crushing in a moment the pride and strength of nations, until not one remains of many hosts of eagle-plumed warriors, have been raised by a corrupt and mercenary spirit, careless of the ravages that it occasioned if its dark designs succeeded. A more equitable spirit now prevails. It is seen to be neither wise nor just to allow in the midst of us another race to remain permanently inferior, a burden and mis-

cry to themselves, and a barrier to the general progress of the whole community.

The Indians at present are in an anomalous condition. They are among us, yet not of us. They are subject to our laws, yet they do not enjoy our privileges, and the laws give them only an imperfect protection. This was clearly seen at the late Assizes for Niagara, in the case described in the following account taken from the *Niagara Chronicle* of the 29th April.

"On Tuesday an interesting case was before the Court. An Indian woman was arraigned for having killed her husband, at Cayuga, on the Grand River, by a blow with an iron bar on the left temple, of which blow he died the same day it was inflicted. She was first indicted for murder, but the Grand Jury returned a bill for manslaughter only. The Solicitor general in stating the case, observed that it arose from the lamentable use of ardent spirits, the manslaughter having occurred during an affray produced by the intoxication of the parties. The interpreter having been sworn, and the indictment explained by him to the prisoner, she stated she did not know any thing of what had occurred, and the Court directed a plea of Not Guilty to be entered. The first witness called was the prisoner's daughter Polly—a good looking Indian girl, about 18 years of age, in full costume wearing a massive silver necklace and ear-rings, her dress handsomely braided with beads, and covered with numerous silver stars. Mr. McDonald, for the prisoner, rose and requested that the witness might be examined as to her knowledge of the nature of an oath. The interpreter, who seemed a very intelligent man, questioned the witness, and explained as the result that her tribe (Senecas) were heathens; they, however, believe that when they die the good go to a good place, and that it is not right to tell a lie; but they never swear, and have no form of oath. On being interrogated if they had no trials amongst themselves, and if no forms were in such cases used with witnesses,

he stated, that in olden times when any wrong was done, the accused persons were tried before the aged chiefs, and the witnesses simply told what had taken place. Mr. McDonald then submitted that it was impossible for such evidence to go to a jury, as, there being no form of swearing, and no form for binding consciences, no indictment for perjury could lie. The Court called for the next witness, who was a younger sister of the last witness, and she made similar answers to the questions put to her through the interpreter. The Solicitor General having no further witnesses to produce, the Chief Justice after having weighed the case, concurred in Mr. McDonald's views, and quoted an instance where the testimony of an intelligent Quaker in England, who had separated himself from the Society, but objected to taking an oath, was refused; and observed that it was still more necessary to refuse testimony where the parties were unfortunately heathens. The prisoner was then discharged.

"The result in the above case suggests the enquiry, how is justice administered among the Indians? We presume that our laws will not permit them to act according to their peculiar customs in matters of life and death, and yet we have no laws adapted to do that for them which we refuse them permission to do for themselves, provided they are not converted to christianity. At present it seems one Indian murdering another would escape punishment altogether, provided the crime could not be established by other than Indian testimony. This is a state of things loudly calling for a remedy, for having the tribes nominally subjected to the operation of our laws, it reflects shame on our legislation that the statute book contains nothing adapted to their peculiar circumstances." And another case happened at the late Assizes at Woodstock, for the Brock District. A white man was arraigned for a rape on an Indian woman, and though the crime was fully proved against him, the Jury returned a verdict of *not guilty!* Here, however, the fault was not in the law, but in the Jury; yet the effect is the same to the Indian.

Good care is now taken of the Indians' property in lands, but in former years it was bartered away for mere trifles. The township of Woolwich, containing upwards of 86,000 acres, was acquired by one person; the township of Dumfries, containing upwards of 94,000 acres, by another; the township of Nicholl, containing 28,500 acres, by another; the township of Waterloo, containing upwards of 94,000 acres, by another, a block of 30,800 acres, by another, and a block of 19,000 acres by two other persons, making 352,300 acres acquired by seven persons from the Indians. What the consider-

ation was does not appear, but it was doubtless very trifling in every case. The Indians still hold about 700,000 acres among the surveyed lands of the province. The territory of the Six Nations on the Grand River originally contained upwards of 674,000 acres of land, among the finest in quality and best situated of any in the province. They have still left about 200,000 acres. Besides which they have money invested in the British funds to the amount of £25,733; also bonds and other provincial securities bearing interest, to the amount of £7629 10s.; and the three-fourths of the Grand River Navigation Stock, on which has been paid the sum of £19,198, but this is yet unproductive.—Some other bodies of Indians have also money invested in Government Debentures. And the annual parliamentary grant (£13,330 sterling) is distributed among the Indians in presents and otherwise, so that means are provided for their comfort and improvement which would be found sufficient for all that is required, if they were brought generally to cultivate their lands, instead of depending so much on fishing and hunting, especially as game is much less abundant with them than it has been, and can no longer be relied on as a principal source of subsistence. The Indians are now in a transition state, neither hunters nor agriculturists, except in a few cases, but their lands would amply provide for all their wants, if duly cultivated, and prove a fixed and ever-growing source of plenty, which, with the grants and other aids in money, would render them permanently prosperous. Great improvement has, however, been effected, especially the last three years, and by perseverance there is no doubt that the Indians will be raised to a full participation of all the benefits within their reach.

The number of Indians who are under the care of the British Government, receiving annual presents, may be about 11,000, of whom about 7000 reside within the settled limits of the Colony. The following return made to Lord Durham's Commissioners on Land and Emigration, shows their relative numbers and distribution. There has been very little change among them since then; but last year, a body of Indians, amounting to from 1000 to 1200 in number, came into the province from the United States, and we hear that four or five hundred more are coming this year. Those who

came last year bought land on which to settle, and are well advanced in civilization. With this addition the following return is correct enough at the present time:—

1. Number of Indians within the colony?

It is impossible to answer this question correctly. The bands of Indians inhabiting the country north of Lakes Huron and Superior are numerous.

The resident Indians within the province are as follows:—The Chippewas of the St. Clair Rapids, Cheval Ecarte, River Aux Sables,—number, 911.

The Hurons of Amherstburgh; the Chippewas of Amherstburgh; the Shawanees of Amherstburgh; the Munsees of Amherstburgh,—number, 197.

The Chippewas of Delaware; the Munsees of Delaware; the Moravians of Delaware,—762.

The Six Nations, 2149.

The Mississagas of River Credit, 240.

The Mississagas of Rice Lake, 135.

The Mississagas of Mud Lake, 159.

The Mohawks of the Bay of Quinte, 337.

The Mississagas of Grape Island, 214.

The Chippewas of Cold Water and the Narrows, 426.

The Chippewas of Manitoulen Island, Lake Huron, 133.

The Ottawas of Manitoulen Island, Lake Huron, 80.

The Chippewas of La Cloch and Mississaging, 225.

The Chippewas of St. Joseph, 90.

The Chippewas of St. Mary's, 99.

The Chippewas between Manatouwanning and Penetanguishene.

The Chippewas of Lake Nippising, 59.

The Pottawatamies of Sanging, 238.

The Chippewas of Sanging, 152.

The Chippewas of Michipicoton, 57.

Besides these, there are of Pottawatamies, Chippewas, Ottawas and Minonumies, from 1800 to 2000, who chiefly reside on the shores of Lake Michigan, and on the south shores of Lake Superior, but who nevertheless consider themselves as owing allegiance to the British Crown.

2. The quantity of land which they hold.

The Upper St. Clair Indian reserve contains about 9000 acres. The lower reserve extends one mile in front on the River St. Clair, and about four miles in depth. There are several islands which the Indians claim, which may contain about 5000 acres.

The Reserves at the River aux Sables contain about 5000 acres.

The Huron reserve near Amherstburgh, extends six miles along the River Detroit, and is seven miles in depth.

Point Pele contains about 3500 acres.

The Chippewas of the River Thames have about 12,000 acres in the township of Carradoc.

The Moravians of Delaware occupy a tract of about 26,000 acres in the township of Zone, and 25,155 acres in the township of Oxford.

The Six Nations had originally six miles on either side of the Grand River, from the mouth to the source of the river. They have still left about 200,000 acres.

The Mississagas of the River Credit have rather more than 3000 acres near to the mouth of the river.

The Mississagas of Rice and Mud Lakes, including the Alnwick settlers, about 6,000 acres.

The Mohawks of the Bay of Quinte, about 53,000 acres.

The Chippewas of Lakes Huron and Simcoe, residing at the Narrows and Coldwater, until very lately possessed a tract of about 9000 acres. They have recently surrendered it to Government, for the purpose of being sold.

They are now in treaty for the purchase of about 1000 acres on the east side of Lake Simcoe, where they propose erecting a village.

The Great Manatouwanning island, which is especially reserved for the use of all Indians who may be disposed to settle upon it, contains from 300,000 to 1,000,000 of acres.

The tribes at La Cloch, Mississaging, and those tribes residing to the north of Lakes Huron and Superior, consider the vast extent of country which they occupy as hunting grounds belonging to them.

The Pottawatamies, and Chippewas of Sanging, on the south shore of Lake Huron, claim the peninsula north of Owen's Sound to Cabot's Head.

3. The manner in which their lands have been acquired: whether by grant from Government, or by being permitted to retain part of their original possessions?

The Six Nations Indians, including the Mohawks of the Bay of Quinte, hold their reserves by grant from the Crown. The territory was purchased of the Mississagas for the express purpose of being given to those tribes, as a reward for their fidelity and services during the old American war.

The most of the land occupied by Indians in other parts of the province are special reserves in their original possessions, made by them-

selves when they sold the adjacent lands to Government.

There are, however, some few tracts in the Newcastle District which have been reserved by Government for the use of the Mississauga Indians, and some which have been purchased by the Indians themselves: viz: at the Rice and Mud Lakes, and at Balsam Lakes.

4. The manner in which the land is held, whether by individuals or the tribe?

The Indians in all cases hold their lands in joint tenancy, to them and their posterity.

5. Whether they are permitted to sell it, and upon what terms?

They are not permitted to sell, lease, or in any other manner dispose of their lands, but

with the consent and concurrence of Government.

Should they do so, the land thus sold, or otherwise disposed of, reverts to the Crown. See Royal Proclamation, dated St. James's, 1763.

The Great Manatouwanning Island, mentioned in the preceding extract, is supposed by many persons to be rocky and barren, a kind of Siberia; but we understand that the rocky part does not extend more than half a mile from the shore. A large part of the island has a rich soil of the finest black earth, covered with majestic forests, and very fine wheat, Indian corn, barley, and potatoes, were raised by the Indians at that station last year.

*The following table shews what Lands were ceded by the Indians to the Government, for which they receive yearly payments of £5405.*

NAMES OF TRIBES.	ACRES CEDED.	ANNUITIES.		
		£	s.	d.
Chippewas of Lakes Huron and Simcoe.....	1,592,000.....	1,200	0	0
Mississaugas of River Credit.....	643,000.....	522	10	0
Ditto of Rice and Mud Lakes.....	1,951,000.....	740	0	0
Ditto of Kingston and Bay of Quinte..	2,743,000.....	642	10	0
Chippewas of River Thames.....	552,190.....	600	0	0
Mohawks of the Bay of Quinte.....	33,230.....	450	0	0
Chippewas of Chenal Ecarte and St. Clair..	2,756,000.....	1,100	0	0
Moravians of River Thames.....	26,005.....	150	0	0
	Acres 10,306,475.....	£5,405	0	0

These annuities are charged upon the casual and territorial revenue. They were at first, and for a long period, paid to the Indians at an appointed time and place, either in money or in goods at stated prices. This plan was, however, found objectionable, as it enabled the improvident Indians to spend their money or barter their goods for liquor, as long as they had

any thing left with which to procure it. A large portion of the annuities is now employed in building them comfortable houses, clearing lands, purchasing horses, cattle, farming implements, seed corn, provisions, &c. This change of system was at first disliked by the Indians, but they are now convinced that it is the most beneficial for their interests.

*The following table shews the Lands that were ceded by the Indians for specific considerations, but for which no annuities are payable.*

NAMES OF TRIBES.	NO. OF ACRES.	CONSIDERATION.			
		£	s.	d.	
Chippewas of Lakes Huron & Simcoe	278,000	4,100	0	0	
Do. of Chenal Ecarte and St. Clair	220,000	2,000	0	0	
Mississaugas of the River Credit..	5,450	125	0	0	
Chippewas of Lake Huron.....	100,000	1,200	0	0	
Ottawas, Chippewas and Wyandots	1,073	300	0	0	
Mississaugas of Lake Ontario.....	250,380	0	10	0	} And divers other considerations not stated.
Mississaugas of Kingston and Bay of Quinte.....	423	107	0	0	
Chippewas and Ottawas of Saugeeng	1,500,000	150	0	0	} And promise of future protection and support.
	Acres, 2,355,636	£7,932	10	0	

His Excellency Sir George Arthur appointed a Commission to enquire into the condition of the Indians, and what lands or annuities they possess, and the management of the Indian department. "From the very extensive and complicated nature of the first branch of this inquiry, and the remoteness of the sources of information upon which alone the Commissioners could form accurate opinions," they deferred a report on it until the information could be collected, and confined themselves to the second branch of inquiry, the Indian department. On this their report treats largely, pointing out its defective organization in past years, through which they "have to lament the injudicious disposal of much valuable property, and the disappearance of unaccounted funds." "Vast sums which from time to time have been realized from sales of blocks of their lands (especially reserved for the use of them and their posterity) instead of being invested in conformity to the trust, and the interest only paid over to the claimants, have, on the contrary, been from time to time divided and distributed among them, and are consequently lost to those for whose benefit and advantage they should have been safely invested, and inviolably preserved."

The report enters minutely into the various changes that are requisite to render the Indian department thoroughly efficient, as it respects the disposal of Indian lands, the removal of squatters from those lands, the distribution of the annual presents, the promotion of civilization among the Indians, the internal arrangements of the office, and in general every thing connected with Indian affairs.

The following extract from the conclusion of the report will show the nature of the improvements suggested.

Your committee will now, as concisely as possible, recapitulate the subjects of their consideration; the defects in the constitution and operation of the department, which appear to them to require attention and improvement; and respectfully make such suggestions as in their opinion will effect such improvement.

*First*—With regard to the system of paying the annuities, your committee are not prepared to recommend any change at present. They are of opinion that the mode described by Mr. Jarvis, of paying them in commodities, which are generally useful to the communities, and have a tendency to domesticate them, and promote the practise of agriculture, a mode happily as it appears, originating in the good sense of

the Indians themselves, ought to be continued.

The changes recommended by your committee under other heads will, they trust, have the effect of rendering such system still more agreeable and beneficial to the Indians.

*Secondly*.—As to the mode of taking care of the Indians' lands, and whether great alterations and improvements might not be effected, much to the advantage of the Indians, your committee have already, in the body of their report, entered at great length into this perplexing subject, and are strongly impressed with the opinion, that so entire a change not only in the preservation, but in the appropriation of the wild lands, must be effected before any material improvement in the social condition of the Indians can be hoped for, (schemes in relation to which, your committee will submit in their report upon the best means of ameliorating their condition generally,) that they for the present avoid recommending any partial alterations, and confine themselves to the protection of their property, against the evils predicated in the

*Third branch of this inquiry*.—As to the course to be adopted with respect to Squatters upon Indians' lands. These may be divided into two classes.

First, of those who have taken illegal possession of the land, either under some pretended license from individual Indians, or without even such colour of title, for the purpose of farming alone, and have cleared and cultivated and built upon the land.

*Secondly*. Such whose illegal possession is accompanied by circumstances of a still more objectionable nature,—such as cutting and plundering the valuable timber—keeping houses for the sale of spirituous liquors, and otherwise disseminating the vices into which the Indians so easily fall, and which are the real source of much of their destitution.

The first class by the valuable improvements upon and attached to the lands, have given a sort of security for their ultimately making to the Indians full compensation for their temporary usurpation, and their cases may for the present be postponed, and taken into consideration in connection with the scheme above alluded to.

There were numerous instances of such upon the lands surrendered to the Crown, and conveyed and sold for the Indians' benefit; these lots were valued with the improvements, and the intruders had the privilege of pre-emption at the price fixed by the Government. If abandoned, they were of course, with their increased value, put up to public competition. This rule might be beneficially followed again, whether the lands be leased or sold.

The second class of squatters your committee conceive to be entitled to no consideration, but that the commissioners appointed under the act for the protection of Indian reserves, ought to be instructed promptly to enforce the law against them.

The great difficulty hitherto felt in getting rid of those trespassers was, that after the forms of the law had been carefully followed, and the intruder ejected by the Sheriff, a few weeks, or even days only, would elapse before he was back, and as completely in possession as ever. This fact (as the chairman of this committee is aware) occurred repeatedly upon the Indian reserves in Tyendinaga, where valuable locations, on the great Eastern Road, were for many years maintained, with so successful a pertinacity, as almost to draw contempt upon the administration of the law. But the act in question having provided a summary penalty for resuming possession after being duly removed, it is hoped that its powers will be found sufficiently efficacious for the purposes contemplated.

It may be proper here to notice, in reference to Mr. Sullivan's recommendation, that his Deputies should be appointed Commissioners under the Act, that the Chief Superintendent, and Deputy Indian Superintendents, are already appointed, especially with a view to the Indian interests; but that as the statute extends to all the Crown lands generally, whoever are commissioned for their general protection would of course have jurisdiction over the Indian reserves, and might, whenever necessary, be aiding and assisting in the correction and prevention of the abuses thereon, which the legislature desired to remedy.

*Fourth.*—As to the alterations which may be beneficially introduced in the mode of proceeding now adopted, as regards the annual Presents.

If the course of conducting the business by means of the Commissariat is to be perpetuated, your committee can do little more than to suggest that such changes in the nature of the Presents should from time to time be made, as from the personal knowledge of the Chief Superintendent shall be desirable to the several tribes, in relation to their becoming, more or less, a domesticated or agricultural people.

Mr. Jarvis already recommends the substitution, or rather addition of shoes and trowsers, as desired by the Indians. Even their adoption of this more convenient and comfortable form of dress, shews a prejudice got rid of, consequently a step gained.

Your committee are struck at the immense expense said to be incurred in the transport of these Presents, before they arrive at the different posts for distribution—an expense which, in many cases, is stated to be most disproportionably enhanced.

This being, of course, paid out of the Parliamentary grant, must if true, seriously diminish the same, and absorb an amount, which, if a better mode could be devised, might be much more beneficially applied.

The increase in the price of goods imported by wholesale merchants, and sold by retail in the remotest settlements of the North or West, bears no proportion to that which is alleged to be in effect the price of the articles distributed to the Indians.

Upon reference to the Chief Superintendent, the committee have reason to doubt the accuracy of Mr. Blair's impressions upon this subject.

Upon the *Fifth* subject of inquiry—the present course of conducting the business of the Indian department, and whether beneficial alterations might not be made—your committee are convinced, that the present machinery of the office is totally inadequate to effect any good, according to the course even at present pursued, and will be still less adequate, if the changes to be recommended by your committee be carried into effect.

With regard to the office of the Chief Superintendent, it is proposed to make such arrangements as will enable that functionary to attend more to the *Statesman's* duties of his office, the extensive nature of which, and its importance to the good government and progressive civilization of the Indians, has been strongly shewn, instead of confining him exclusively to those services which might be equally well performed by a clerk, and enable him accurately to know the real state of the Indians' funds, without waiting to be enlightened from another department, and so to organize the office as to render it fit for the more efficient discharge of its more extended duties. The attention due to the property and general interests of the Grand River Indians, until lately managed by Trustees, is in itself sufficient to occupy one man's time.

The necessary alterations in the management of the Indian Office are then enumerated, and appear to be well adapted to attain the desired end.

The following return shews the number of Indians within the limits of the United States, or on the western frontier. Since this return was made, about 30,000 more Indians have been removed from the east to the west of the Mississippi, making the total number that have emigrated 81,282:—

INDIAN STATISTICS.—W. learn from official documents that the Indians now east of the Mississippi number 49,365. Of these the fol-

lowing are under treaty stipulations to remove west of the Mississippi:—The Winnebagoes, 4500; Ottawas of Ohio, 100; Pottawatamies of Indiana, 2950; Chippewas, Ottawas, and Pottawatamies, 1500; Cherokees, 14,000;—Creeks, 1000; Chickasaws, 1000; Seminoles, 5000; Apalachicolas, 400; Ottawas and Chippewas in the peninsula of Michigan, 6500—total 36,950. Those not under treaty stipulations to remove amount to 12,115, as follows:—New York Indians, 4176; Wyandots, 575; Miamies, 1100; Menomonies, 4000; Ottawas and Chippewas of the Lakes, 2564.

The number of Indians who have emigrated from the east to the west of the Mississippi is 51,327, viz: Chickasaws, 549; Chippewas, Ottawas and Pottawatamies, 2191; Choctaws, 15,000; Quapaws, 476; Creeks, 476; Seminoles, 407; Apalachicolas, 265; Cherokees, 7911; Kickapoos, 588; Delawares, 326; Shawnees, 1272; Ottawas, 374; Wecas, 222; Piankeshaws, 162; Peorias and Kaskaskias, 132; Pottawatamies of Indiana, 53; Senecas, 251; Senecas and Shawnees, 211.

The number of the indigenous tribes within striking distance of the western frontier is 231-806, viz: Sioux, 21,600; Iowas, 1500; Sacs, 4800; Foxes, 1600; Sacs of the Missouri, 500; Osages, 5120; Kansas, 1616; Omahas, 1600; Otoes and Missourias, 1000; Pawnees, 12,500; Camanches, 19,200; Kiowas, 1800; Mandans, 3200; Quapaws, 450; Minatarees, 2000; Pagens, 30,000; Assiniboins, 15,000; Appaches, 20,280; Crees, 3000; Arrepahas, 3000; Gros Ventres, 16,800; Eutaws, 19,200; Crows, 7200; Caddoes, 2000; Poncas, 900; Arickarees, 2750; Cheyunes, 3200; Blackfeet, 30,000.

The whole number of the Indians above enumerated is 332,498. Assuming that every fifth one may be considered a warrior, the number of their fighting men is 66,469.

In further illustration of the Indian character and traditions, we copy the following account from a letter of the American artist, Mr. George Catlin, to a gentleman of New York. The letter is dated from the Red Pipe Stone, Coteau Du Prairie.

I wrote you a letter a few days since from this place, which, if it should have reached you, will have convinced you that I am in one of the most curious places on the continent. Curious for the traditions respecting it (some specimens of which will be given in the present epistle,) and also for the exceedingly picturesque and romantic appearance of the place itself. I had long ago heard many thrilling descriptions of this place given by the Indians, and had contracted the most impatient desire to visit it.—It will be seen by some of the traditions inserted in this letter, from my notes taken on the Upper Missouri four years since, that those

tribes have visited this place freely in former times, and that it has once been held and owned in common, as neutral ground amongst the different tribes who met at this place to renew their pipes, under some arrangement which stayed the tomahawk of these natural foes, always raised in deadly hate and vengeance in other places. It will be seen also that within a few years past, (and that probably, by the instigation of the whites who have told them that by keeping off other tribes, and manufacturing the pipes themselves, and trading them to other adjoining nations, they can acquire much influence and wealth,) the Sioux have laid entire claim to this quarry, and as it is in the centre of their country, and they are more powerful than any of the other tribes, they are able successfully to prevent any access to it. That this place should have been visited for centuries past by all the neighbouring tribes, who have hidden the war-club as they approached it, and stayed the cruelties of the scalping knife under the fear of the vengeance of the Great Spirit who overlooks it, will not seem strange or unnatural when their religion and superstitions are known. That such has been the case there is not a shadow of doubt, and that even so recently as to have been visited by hundreds and thousands of Indians of different tribes, now living, and from many of whom I have personally drawn the information, some of which will be set forth in the following traditions; and as an additional and still more conclusive evidence of the above position, here are to be seen, and will continue to be seen for ages to come, the *totems*, or arms of the different tribes who have visited this place for ages past, and deeply engraved their heraldry on the rocks, where they are to be seen and recognized in a moment, and not to be denied by the passing traveller who has been among those tribes, and acquired even but a partial knowledge of them.

The thousands and tens of thousands of carvings and paintings on the rocks at this place, as well as the ancient diggings for the pipe stone, will afford amusement for the world who will visit it, without furnishing the least data of the time at which these excavations commenced, or of the time at which the Sioux assumed the exclusive right to it.

Among the many traditions which I have drawn personally from the different tribes, and which go to support the opinion above advanced, is the following one, which was related to me by a distinguished Knistineaux, on the Upper Missouri, four years since. After telling me that he had been to this place, and after describing it in all its features, he proceeded to say:

“That in the time of a great freshet, which took place many centuries ago, and destroyed all the nations of the earth, all the tribes of the red men assembled on the Coteau du Prairie to



get out of the way of the waters. After they had all gathered here from all parts, the water continued to rise until at length it covered them all in a mass, and their flesh was converted into red pipe stone. Therefore it has always been considered neutral ground—it belonged to all tribes alike, and all were allowed to get it and smoke it together. While they were all drowning in a mass, a young woman, (K-way-ah-w, a virgin) caught hold of the foot of a very large bird that was flying over, and was carried to the top of a very high cliff, not far off, that was above the water. Here she had twins, and their father was the War Eagle, and her children have since peopled the earth. The pipe stone, which is the flesh of their ancestors, is smoked by them as the symbol of peace, and the eagle's quill decorates the head of the brave."

#### TRADITION OF THE SIOUX.

"Before the creation of man, the Great Spirit, (whose tracks are yet to be seen on the stones at the Red Pipe, in form of the tracks of a large bird) used to slay and devour the buffalo on the top of the Coteau du Prairie, and their blood running into the ground turned the stones red. One day, when a large snake had crawled into the nest of the bird to eat his eggs, one of the eggs hatched out in a clap of thunder, and the Great Spirit catching hold of a piece of the pipe stone to throw at the snake, moulded it into a man. This man's feet grew fast in the ground where he stood for many ages, and therefore he grew very old; he was older than a hundred men at the present day; he bore a delicious fruit, some of which fell on the ground, and at last one of them grew up a tree, when a large snake ate them both off at the roots, and they wandered off together; from these have sprung all the people that now inhabit the earth. After many ages, when all these tribes were at war, the Great Spirit sent runners and called them all together at the Red Pipe. He stood on the top of the rocks, and the red people were assembled on the plains below. He took out of the rock a piece of the red stone and made a large pipe; he smoked it over them all; told them it was part of their flesh; that the red men were made from it; that though they were at war, they must meet at this place as friends; that it belonged to them all; that they must make their calumets from it and smoke them to him whenever they wished to appease him or get his good will,—the smoke from his big pipe rolled over them all, and he disappeared in its cloud; at the last whiff of his pipe a blaze of fire rolled over the rocks and melted their surface—at that moment two squaws went in a blaze of fire under the two medicine-rocks, where they remain to this day, and must be consulted and propitiated whenever the pipe stone is to be taken away."

The following speech of a Mandan, which was made to me in the Mandan village four years since, after I had painted his picture, I have copied from my note book as corroborative of the same facts:—

'MY BROTHER:

"You have made my picture, and I like it much. My friends tell me they can see the eyes move, and it must be very good—it must be partly alive. I am glad it is done—though some of my people are afraid. I am a young man but my heart is strong, I have jumped on to the Manito rock—I have placed my arrow on it and no Mandan can take it away.\* The red stone is slippery, but my foot was true—it did not slip. My brother, this pipe which I give to you, I brought from a high mountain, it is toward the rising sun,—many were the pipes that we brought from there—and we brought them away in peace. We left our totems and our marks on the rocks—we cut them deep in the rocks, and they are there now.—The Great Spirit told all nations to meet there in peace, and all nations hid the war club and the tomahawk. The Sioux, who are our enemies, are very strong—they have taken up the tomahawk, and the blood of our warriors has run on the rock. My friend, we want to visit our medicines—our pipes are old and worn out. My friend, I wish you to speak to our Great Father about this."

Shoo-di-ga-ka, chief of the Poncahs, on the Upper Missouri, also made the following allusion to this place, in a speech which he made to me on the occasion of presenting me a very handsome pipe about four years since:—

'MY FRIEND:

"This pipe, which I wish you to accept, was dug from the ground, and cut and polished as you now see it, by my hands. I wish you to keep it, and when you smoke through it, recollect that this red stone is a part of our flesh. This is one of the last things we can ever give away. Our enemies the Sioux have raised the red flag of blood over the pipe stone quarry, and our

\* The Manito or leaping rock is a part of the precipice which has become severed from the main part, standing within about seven or eight feet from the wall, just equal in height, and about seven feet in diameter. It stands like an immense column of 35 feet high, and polished like a mirror on its top and sides. It requires a daring effort to leap on its top and back again, and many a heart has sighed for the honour of the feat without daring to make the attempt. Some few have tried it with success, and left their arrows standing in the crevice; several of which are seen there at this time; others have leaped the chasm and fallen from the slippery surface on which they could not hold, and suffered instant death upon the craggy rocks below. Every young man in the nation is ambitious to perform this feat; and those who have successfully done it are allowed to boast of it all their lives.

medicines there are trodden under foot by them. The Sioux are many, and we cannot go to the mountain of the Red Pipe. We have seen all nations smoking together at that place,—but, my brother, it is not so now.”

One of the old chiefs of the Sacs, on seeing some specimens of the stone which I had brought with me from that place, observed as follows:—

“MY FRIEND:

“When I was young, I used to go with our young men to the mountain of the Red Pipe, and dig out pieces for our pipes. We do not go now; and our red pipes, as you see, are few. The Sioux have again spilt the blood of red men on that place, and the Great Spirit is offended. The white traders have told the Sioux to draw their bows upon us when we go there; and they have offered us many of the pipes for sale, but we do not want to smoke them, for we know that the Great Spirit is offended. My mark is on the rocks in many places, but I shall never see them again. They lie where the Great Spirit sees them, for his eye is over that place, and he sees every thing that is done there.”

Ke-o-kuck, chief of the Sacs and Foxes, when I asked him whether he had ever been there, replied:—

“No, I have never seen it; it is in our enemies’ country—I wish it was in ours—I would sell it to the whites for a great many boxes of money.”

Such are a few of the traditions relating to this curious place, and many others might be given which I have procured, though they amount nearly to the same thing.

The position of the pipe stone quarry is in a direction nearly west from the Falls of St. Anthony, at a distance of two hundred and twenty or thirty miles, on the summit of the dividing ridge between the St. Peters and the Missouri rivers, being about equi-distant from either.—This dividing ridge is denominated by the French the “Coteau du Prairie,” and the “Pipe Stone” is situated near its southern extremity, and consequently not exactly on its highest elevation, as its general course is north and south, and its southern extremity terminates in a gradual slope. Our approach to it was from the east, and the ascent, for the distance of thirty or forty miles, over a continued succession of slopes and terraces, rising one above another in singular regularity, that seemed almost to lift us into the clouds. The singular character of this majestic anomaly in nature is (from appearance, and from information we received,) continued on the west side on its descent toward the Missouri. There is not a tree or bush to be seen from the highest summit of the ridge, though the eye may range east and west almost to a boundless extent, over a sur-

face covered with a short grass, that is green at one’s feet, and about him, but changing to a blue in the distance, like nothing but the blue and vastness of the ocean.

The effect that will be wrought upon the minds of future travellers, who will wend their way over these gigantic pastures of green, (provided their imaginations are like my own,) will be grand and thrilling in the extreme. As for myself, my feelings may have been over wrought, for they seemed to swell and enlarge at every swell and terrace that we mounted up, and when at the very summit, (where the meanest horse will neigh and gaze with admiration,) I must say that I felt as light as the air that was about me, and almost able to fly with a pair of wings no larger than those on Mercury’s heels or Cupid’s back.

The whole surface of this immense tract of country is hard and smooth, almost without stone or gravel, and coated with a green turf of grass of three or four inches only in height.—Over this the wheels of a carriage would run as easily, for hundreds of miles, as they could on a macadamized road, and its graceful gradations would in all parts admit of a horse to gallop, with ease to himself and his rider.

The full extent and true character of these vast prairies are but imperfectly understood by the world yet, who will agree with me that they are a subject truly sublime for contemplation, when I assure them that a coach and six horses might be driven at full gallop and with perfect ease (with the exception of rivers and ravines) over unceasing fields of green, from the Falls of St. Anthony to Lord Selkirk’s establishment, from that to the mouth of Yellow Stone—thence to the Platte—to the Red River and the Arkansas—from thence to Santa Fee, and through Texas to the Gulf of Mexico; a distance of more than 5000 miles, and that too all the way in United States territory.

But to return to the pipe stone quarry. The scenery alone of this place is a subject for admiration, as will be seen by the views which I shall bring home. A graphic description of its features and colours, and of the forms and ceremonies observed by the Indians preparatory to taking away the stone for their pipes, shall be the theme for a future epistle; and so for another, my theory of the geology and mineralogy of this region of country, which may differ materially from the theories that have heretofore been advanced to the world.

“Woman’s limits” I shall also describe, and her training on this hallowed ground; her marks are set; she can toe them, but no farther. Woman is allowed to see, but not to touch with her foot, the sacred ground of the red pipe.

I mentioned in my former letter that we had been arrested and made prisoners by the Sioux,

on our approach to this place, and I herein insert for your amusement and edification, the most important part of the speeches made, and talks held on that occasion. After these copper-visaged advocates of their country's rights had assembled about us, and filled up every avenue of the house, the grave council was opened in the following manner:—

Te-o-kun-kho, (the Swift Man,) rose and said—

"My friends, I am not a chief, but the son of a chief; I am the son of my father, he is a chief—and when he is gone away, it is my duty to speak for him—he is not here, but what I say is the talk of his mouth. We have been told that you are going to the pipe stone quarry. We come now to ask for what purpose you are going there?" 'How, how!' vociferated all of them, thereby approving what was said, giving assent by the word how, which is their word for yes.

"Brothers—I am a brave, but not a chief,—my arrow stands in the top of the leaping rock; all can see it, and all know the Te-o-kun-kho's foot has been there." 'How, how!'

"Brothers—we look at you and we see that you are Che-mo-ke-men-captains, (white men officers); we know that you have been sent by your people to see what that place is worth—and we think that the white people want to buy it.

"Brothers—We have seen always that the white people, when they see any thing in our country that they want, send officers to value it, and then if they can't buy it they will get it some other way." 'How, how!'

"Brothers—I speak strong, my heart is strong, and I speak fast; this red pipe was given to the red men by the Great Spirit—it is a part of our flesh, and therefore is a great medicine." 'How, how!'

"Brothers—We know that the whites are like a great cloud that rises in the east and will cover the whole country. We know that they will have all our lands; but if ever they get our red pipe quarry they will have to pay very dear for it." 'How, how!'

Brothers—We know that no white man has ever been to the pipe stone quarry, and our chiefs have often decided in council that no white man shall ever go to it." 'How, how!'

"Brothers—You have heard what I have to say, and you can go no farther; but you must turn about and go back." 'How, how!'

"Brothers—You see that the sweat runs from my face, for I am troubled."

Then I commenced to reply in the following manner:—

"My friends, I am sorry that you have mistaken us so much, and the object of our visit to this country. We are not officers—we are not sent by any one—we are two poor men traveling to see the Sioux, and shake hands with them, and see what is curious or interesting in their country—this man who is with me is my friend, he is a Sa-ga-nosh, (an Englishman).—'How, how!'

[All rising and shaking hands with him, and a number of them taking out and shewing British medals, which seemed to have been secreted about them.]

"We have heard that the Red Pipe Quarry was a great curiosity, and we have started to go to it, and we will not be stopped."

[Here I was interrupted by Ma-cou-che-tah, a grim and black-visaged fellow, who shook his long shaggy locks as he rose, and the very floor also as he trod upon it; with his sunken eyes fixed in direst hatred on me, and his fist brandished within an inch of my face.]

"Pale faces!—You cannot speak till we have all done; you are our prisoners; our young men (our soldiers) are about the house, and you must listen to what we have to say—what has been said by you is true, you must go back."—'How, how!'

"No white man has been to the red pipe, and none shall go." 'How!'

"You see," holding a red pipe by the side of his arm, "that this pipe is a part of our flesh. The red men were made from the red stone." 'How, how!'

"If the white men take away a piece of the red pipe stone, it is a hole made in our flesh, and the blood will always run. We cannot stop the blood from running. 'How, how!' The Great Spirit has told us that the red stone is only to be used for pipes, and through them we are to smoke to him. 'How.' Why do the white men want to get there? You have no good object in view: we know you have none, and the sooner you go back the better." 'How, how.'

Muz-za (the Iron) spoke next.

"My friends, we do not wish to harm you; you have heard the words of our chief men, and you see that you must go back. 'How, how.'—Tchan-du-pah-sha Kah-free (the red pipe stone) was given to us by the Great Spirit, and no one need ask the price of it, for it is medicine." 'How, how.'

"My friends, I believe what you have told us—I think that your intentions are good, but our chiefs have always told us that no white man was allowed to go there, and you cannot go." 'How, how.'

"The red pipe stone is a part of our flesh—it is red—if the white men go to it we are afraid it will turn white—they come among us, and our children are turning white—there is plenty of white clay—let the white men get that if they want pipes." 'How, how.'

"This is all I have to say."

*Te-co-wan-de-chee*—My friends, you see I am a young man—you see on my war club two sculps from my enemies' heads—my hands have been dipped in blood, but I am a good man. I am a friend to the whites—to the traders—and they are your friends. I bring them 3000 musk rats every year, which I catch in my own traps. 'How, how.' We love to go to the Pipe Stone and get a piece for our pipes; but we ask the Great Spirit first. If the white men go to it they will take it out and not fill up the holes again, and the Great Spirit will be offended. 'How, how.' If the whites are allowed to go to it they will soon have a great mill, that will make pipes for all the people in the world. 'How.' I have been told that they put large logs of wood on a great wheel, and hundreds of bowls and ladles and spoons drop out under this wheel." 'How, how, eugh.'

"I wish you no harm, but I wish you would go out of this country—you cannot go any farther." 'How, how.'

*Stun-ne-wus-see*. My friends, listen to me,—what I am to say will be the truth. 'How.' I brought a large piece of the pipe stone and gave it to a white man to make a pipe; he was our trader, and I wished him to have a good pipe. The next time I went to his store I was unhappy when I saw the stone made into a dish! eugh! This is the way the white men would use the red pipe stone, if they could get it.—Such conduct would offend the Great Spirit, and make a red man's heart sick." 'How, how.'

"Brothers, we do not wish to harm you—if you turn about and go back, you will be well, both you and your horses—you cannot go forward." 'How, how.'

"We know that if you go to the pipe stone the Great Spirit looks upon you—the white people do not think of that. How, how."

"I have no more to say."

After some more speeches had been made, Mr. Catlin made his reply, and then he and his friend saddled their horses, and rode away to the pipe stone quarry.

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## TORONTO HARBOUR.

This article was read as a lecture before the Toronto Mechanics' Institute by Mr. Thomas Roy, Civil Engineer, and we preserve its original form.

The subject upon which we propose to engage your attention this evening is, "The Geological formation, and the existing phenomena of the Harbour of Toronto." This subject necessarily forms itself into two divisions. We shall begin with the first in the order of time, "The Geological formation."

Somewhat more than a year ago, I read a paper from this place upon the Geological formation of Upper Canada, and produced specimens of most of the rocks which constitute the formation of this portion of North America, and also a geological section, exhibiting their

order of super-position. I then shewed and gave proofs that the valley and basin of Lake Ontario, is a valley of denudation, excavated out of various shales, and their interstratified sandstones, (as shewn on the section now exhibited.) Immediately upon the north shore of the Lake, at the City of Toronto, the Tertiary formations rest upon black bituminous shales, interstratified with calcareous sandstone; immediately above those bituminous shales, and resting upon them, are other dark shales, interstratified with hard silicious stone, scarcely at all effervescing with acids. Good sections of this formation are disclosed in the ravines of the Humber and the Mimico rivers.—Organic remains are abundant in both these formations, which identify them as belonging

to the submedial era. Resting upon these dark shales, are red shales, and red sandstones.— These are well disclosed about Oakville, and Wellington Square—or we may say, from the mouth of the Credit River southward to Burlington Bay. Then, resting upon these red shales, is that thick, dense, unstratified mass, which has been termed red marl, and which is well disclosed on the shores of the River from the town of Niagara to Queenston, and at many other places upon the south side of the Lake; there are but few organic remains in the red shales, and perhaps none in the red marl. It is out of these black and red shales that the whole of the basin of Lake Ontario is excavated; for although at the eastern end the bottom is transition limestone, the excavating waters have not cut deep into it, but have rather cleared away the softer formations and left the surface of the rock bare.

Before proceeding further, it will be proper to draw your attention for a few minutes to the immense denudations which are found in so many parts of North America.

From the Rocky Mountains to near the east end of Lake Ontario, the stratification is remarkably regular, and nearly horizontal, the dip being only from 20 to 30 feet a mile to the southward. There are a few places where the strata has been slightly upheaved, and probably a few places where it has been depressed, but in general there can be no doubt that it rests, even now, just in the same position as when it was at first deposited. But it is far different indeed with the eastern parts of the continent. Nearly the whole of that range of mountains between the coast of New England and Lake Ontario, is of volcanic origin, and has again and again been rent and torn by awfully conflicting forces. Even the valley of the St. Lawrence is a valley of depression; and the rock at the Falls of Niagara has evidently been acted upon by subterranean heat, whilst under great pressure. Thus, whilst the eastern parts of the continent have undergone so many changes by volcanic agency, the western parts have nearly escaped from the ravages of that power; but these western parts have been nearly as much changed by the action of water as the eastern parts have been by the action of heat. The basins of Lakes Superior, Huron, Michigan, St. Clair, Erie, and Ontario, are all valleys of denudation; so also are the Seneca, Cayuga, and

all the others of the small Lakes between the summit elevation of the land and Lake Ontario. Many traces of this denuding power are also found in the Mississippi and the Missouri valleys, and in that vast extent of country which is situated to the northward of the great Lakes. But as these last have not come under the observation, perhaps, of any one present, it will not be necessary to enter into farther details concerning them upon this occasion.

It is difficult to fix upon the precise geological era when these denuding waters passed over this continent, from the circumstance, that we have no formation in the great central valley of North America, newer than the coal formation, except the tertiary; but even this circumstance furnishes us with important data concerning the denuding deluge, for it proves that these vast plains had emerged from the ocean about the era of the coal formation, and had never again been under the waters of the ocean, except when this denuding deluge passed and repassed over them. The whole of these denudations have been effected at an era subsequent to the era of the coal formation, and there is no proof to the contrary, but every probability is in favour of the position, that they were all effected by one and the same deluge. The course of this deluge has been from north and north west, to south and south east, as is evidenced by the diluvial remains which mark the course of its ravages; for whilst the crest of its advancing waves, and the reaction of its receding waves, had been producing those vast excavations above alluded to, the materials excavated; had been deposited by its eddying waters, and now form the diluvial masses, or the heights which skirt these excavations.— This is beautifully illustrated by the heights in the townships of Beverly, Dumfries, &c. at the head of Lake Ontario, which are elevated from 1100 to 1200 feet above the level of the sea.— The upper portions of these heights are almost entirely formed of Detritus from the underlying group of magnesian rocks, which have undergone such extensive denudation in the adjoining townships of Trafalgar, Nelson, Flamborough, &c. The same phenomena are observable upon the heights which separate the waters that fall into the Lakes, from the head waters of the Susquehanna and the Alleghany rivers, almost all of which are crested with detritus from the excavations to the northward.

But the most remarkable phenomena which this deluge, and most probably the accompanying volcanic action upon the eastern shores of the continent had produced, were, that it left this great valley of North America so encircled by heights that it remained covered with water, and became a great inland sea, the surface elevation of which, in its earliest condition, must have been about 1000 feet above the level of the ocean. That these inland waters were left by this denuding deluge is proved by this fact, that the tertiary clays, and other formations, which were no doubt deposited by the inland waters, rest immediately and conformably upon the denuded strata.

About two years ago, I read a paper from this place, upon the former extent, and the successive subsidations of these inland waters;—therefore I shall not dwell further upon this subject at present.

The tertiary formations above alluded to, which are everywhere found in the Lake countries, consist of, from below upwards—first, blue clay or marl, from 80 to 100 feet thick;—second, white clay, 3 or 4 feet thick—both these are regularly stratified; third, brown surface clays, sands, and boulders, generally stratified, but upon the ridges, and where currents have acted, washed together in unstratified masses.

The great inland waters had flowed off, and had subsided down to the level of Lake Ontario at thirteen different and distinct periods, (see section) more or less remote from each other. In some instances the subsidation had been gradual, in other instances it must have been very rapid. In the earliest periods, it is now satisfactorily shewn that the discharge must have been through the Cheemung valley, i. e. the Susquehanna river; but after the waters had subsided to a less elevation than 900 feet above the level of the sea, the chasms of the Hudson and of the St. Lawrence rivers appear to have been partially opened, most probably by those volcanic agencies, of which there are such overwhelming evidences in the eastern parts of the continent; and one or both of these openings had subsequently become the medium of discharge. The present course of the Mississippi river does not appear to have been opened up until the period of the final catastrophe which laid dry the Mississippi valley, and reduced Lake Ontario to its present level. Previ-

ously to this period, and during all the long interval when the waters of Lake Ontario were subsiding down from the elevation of Queenston Heights to their present level, the whole discharge from the Mississippi valley had passed through Lake Michigan, over the Falls of Niagara, and through Lake Ontario.

It was necessary so far to enter upon the general geology of North America, in order to illustrate what we shall now advance concerning the formation of Toronto Harbour.

The harbour of Toronto is about 2½ miles in length from the Government wharf to the peninsula hotel, and about 1½ miles in breadth from the end of Church Street to the southern peninsula. The water gradually deepens from the north shore. At the distance of 1000 feet from the shore it is about 15 feet deep, and at the distance of about half a mile from the shore it is about 30 feet deep; farther out it deepens to 33 feet, and continues to maintain these depths for about a mile farther, when as we approach to the southern peninsula the depth suddenly declines from 28 and 30 feet water to 5, 6, and 7 feet water. (See sections.) The same basin-like form is observable when we approach to the eastern peninsula, as when we approach to the north shore, and near the entrance of the harbour the deep water narrows. The greatest depth at the entrance is 14½ feet, and the width of deep water from the Government wharf to the buoy is about 300 feet. The bottom along the north shore is black bituminous shale, interstratified with dark calcareous stone as above described. This same formation underlays, and in a great measure forms the peninsula or height which separates the harbour from the swamp upon the east; but the southern peninsula is entirely different, the black bituminous shale formation being overlaid by the common tertiary blue clay, or marl; and the blue clay is overlaid by masses of sand and other alluvial deposits, clearly proving that the southern peninsula is not a bar of sand across the bay, similar to the bar of sand across the mouth of Burlington Bay, for it proves that Toronto harbour is an excavated basin, separated from, although connected in some measure with the basin of Lake Ontario; in other words, speaking geologically, it is a separate Lake, and must have been excavated by powers which have ceased to act, since the waters of Lake Ontario have subsided to their present level.

Let us next enquire by what means was the basin of Toronto harbour excavated. In order to solve this problem we must revert to that era when the waters of Lake Ontario were about 350 feet higher than they now are, or when they were nearly on a level with the summit of Queenston Heights.

In illustration of our position I would first draw your attention to those vast masses of sand and gravel which skirt the northern and the western shores of the Lake. It will be sufficient for our present purpose, to confine the field of our examinations to a few miles east and west of Toronto,—beginning at Scarborough Heights, where we find these masses of sand rising to the elevation of nearly 350 feet above the present level of the Lake, at the distance of three or four miles from the Lake, and gradually declining as they approach to the shore. Proceeding northward from the City, by Colonel Wells' house, we perceive exactly the same phenomena, at the same elevations, only the hill upon which his house is built has been acted upon by a current after its first deposition, and is indented, and cut into a steep acclivity, whilst the ground from the hill to the shore is comparatively level, and has been cleared of the sand, and in many places more recent formations have been deposited. Again, if we proceed from the mouth of the Humber in a north west direction, exactly the same phenomena present themselves, at the same elevations—only there depositions of sand have been made, and excavations effected at the lower elevations, even up to the period when the Lake subsided to its present level. Now, it is important to bear in mind that all these masses of sand and gravel rest upon the tertiary clays, and are a more recent formation; therefore, extensive denudations must have taken place in the basin or bed of Lake Ontario in comparatively recent times; for that the materials which compose these depositions have been excavated from the bed of the Lake is proved by this fact, that nearly all the gravel consists of small rounded boulders or pebbles of Lake stone,—let us enquire into the causes which produced these recent excavations.

We have already shewn that the whole of the waters from the west, including the Mississippi waters, were discharged by the Niagara river, and through Lake Ontario, up to the period Lake Ontario subsided to its present level,—

therefore the quantity of water which flowed through the chasm at Queenston must have been more than double what it is at present.—The highest distinguishable margin at which the waters had continued stationary for a considerable period, after the separation of Lake Erie from Lake Ontario, is 344 feet above the present level of the Lake. When the surface of Lake Ontario was at this elevation, the whole of the discharge from the westward had become concentrated into the present course of the Niagara river. At the first a considerable rapid must have existed at Queenston, which would give to so large a body of water an immense velocity, and would bend the current downward, so as to act upon the bottom of the Lake, and to throw up the materials excavated upon the north shore. But the rocks in the line of the chasm, from Queenston to the whirlpool, are not of a nature to resist for a long period the action of so large and rapid a current of water; therefore a level course would soon have been formed up to the whirlpool, where no doubt the first perpendicular falls were situated; but the narrowness of the chasm and the depth of the current flowing through it would have produced so great a velocity as would have caused the action to be very sensibly felt upon the northern shore of the Lake. However, this does not become so apparent, as we shall see, until the Lake had subsided to a lower level. The next well-defined margin of the Lake is 303 feet above its present level, or a subsidence of 36 feet had taken place, by which the current of the Niagara river must again have assumed a downward bend, and must have again acted upon the bottom of the Lake, and thrown up the materials excavated upon the north shore. This we find to have been the case, for another ridge, formed of the same materials as above described, runs all along the northern shore at this elevation. The next well-defined margin is at the elevation of 280 feet above the present level of the Lake; that the same phenomenon had again taken place, is proved by another ridge of the same description being found upon the northern shore at this elevation. The next well-defined margin is 203 feet above the present level of the Lake, or a subsidence of 72 feet had taken place. This must have given the current a vastly greater power to act upon the bottom of the Lake, than any of the three former subsidences; for the current had

not only a greater downward bend, but also the waters of the Lake were greatly reduced in depth; consequently, we find vastly greater deposits of the excavated materials upon the northern shore of this elevation. Those heights in Scarborough which project forward to the Lake, the hill upon which Captain Baldwin's house stands, and the ridge upon which Dundas road runs along the head of the Lake, all belong to this era; but there is one very remarkable circumstance, viz: that the waters of the Lake must have remained stationary for a long series of years at the elevation of the base of this ridge, 208 feet above their present level; and the rapid in the Niagara river at Queenston must have disappeared for the greater portion of that time, and the course of the river from the falls (which were then at or near the whirlpool,) to Queenston, must have been nearly level; but so great a body of water as a river equal to the Mississippi and the Niagara rivers united, flowing through, and confined into a course not more than 300 feet wide, must have acquired an awful velocity as it entered into the Lake, and it would be surprising indeed if we could not trace its action upon the northern shore,—traces of its action however, are well defined there, as we shall now proceed to shew.

Scarborough heights just east of Mr. Small's farm, are well known to you all to consist of masses of gravel and sand such as are above described; as we proceed westward we find these masses retaining the same elevation, but at a greater distance from the Lake; they cross the course of the Don river to the northward of Messrs. Helliwell's brewery; they then form the hill to the northward of this city, upon which Captain Baldwin's and Colonel Wells' houses are situated, then trend more to the southward, cross the river Humber to the north of the Dundas road, and assume a southward bearing, encircling the head of the Lake at varying distances of from 3 to 5, or 6 miles from its present shore. That valley in which this city is situated, forms a sort of amphitheatre, surrounded upon the north side by these heights, the central part of the curve is near to Captain Baldwin's house, where the height of the hill is about 70 feet above its base. It is almost perpendicular, and is evidently an indentation cut out of the masses of sand which had been previously deposited. Now, if when

we examine the chasm of the Niagara river just above Queenston, we find that the centre of this amphitheatre upon the north side of the Lake is situated in the direct line of the current, as it must then have flowed out from it, we cannot find any difficulty in discovering the power which produced this indentation; and as we trace the evidences of the action of this current upon the northern side of the Lake, the conviction becomes certain. In the first place, if so large a quantity of sand (for I believe the sand ridge once extended south to near the College grounds) was washed away by a direct current acting upon it, the materials excavated must have been deposited by the eddying waters at a short distance, and at a somewhat lower level than the then surface of the Lake.—This position we find exactly realized in the vast masses of sand which form the sandy plains near the Humber upon the west, and in those other masses which form the sandy plains and ridges on both sides of the river Don upon the east. In the second place, if a direct current acted with such effect upon this height, besides the eddying waters produced by it, at a short distance from the shore where the water was sufficiently deep, an under-current would be formed, in order to preserve the equilibrium, and to discharge the accumulation produced by the direct surface current. This under current would act upon the bottom of the Lake, and produce a deep excavation, nearly in the line of the direct current, or where the advancing current was pressing the receding current downward. We find just such an excavation in Toronto bay or harbour, which we have already shewn is an excavation in the tertiary blue clay, and to the action and reaction of these currents we ascribe the formation of Toronto harbour. But still, let us further examine the progress of this denudation upon that space between the harbour and the hill, or where the city is now built. We have already shewn that the tertiary formations consist of blue clay 80 to 100 feet thick, white clay 3 or 4 feet thick, and the surface clays, sands, and boulders of varying thickness. Now, at the ravine of the blue hill's north of the city, we find the white clay resting conformably upon the blue clay; therefore these strata have never been disturbed at this place since their first deposition; but the surface clays appear to have suffered much from conflicting currents. Now the water of



the Lake could not have been more than 40 feet deep at this place at the era alluded to, and although a great turmoil must have existed, yet a regular under-current could not have been formed in such shallow water so near the shore. Again, near the present shore in this city, the white clay is entirely wanting, and the blue clay is reduced to 8 or 10 feet in thickness, evidencing that an extensive denudation has taken place. This is further proved by fragments of wood and other organic remains being found washed in and deposited upon the blue clay, but take notice, not contained in them, as originally deposited, for such remains are not found where the clay has not been disturbed; within the boundaries of the harbour on the north shore the blue clay is entirely removed; but as has already been shewn, near the southern peninsula the blue clay rises nearly perpendicular, and presents a front to the north almost 30 feet high. Combine these circumstances, and it becomes obvious that the excavating current has come from the northward, or that the excavation of the harbour has been produced by the under-current which we have described. But in the third place, the action of a direct current upon the sand hills north of the city, and of extensive denudation produced by it, is proved by the immense quantity of boulders found at their base. These boulders are of many varieties, but one specimen is extremely prevalent, of which we have not been able to find the rock from whence it is derived. It is a hard-veined sandstone. It may probably belong to some rock in the bed of the Lake subordinate to the old red sandstone shales. It is probable that most of these boulders were first deposited in the sands and gravels, and when these were removed by the denuding action, the greater density of the stones caused them to remain at the bottom of the Lake, and to be rolled up by the current upon the beach.

It is probable that at the time when this basin, now Toronto harbour, was excavated, the blue clay, and the other tertiary formations constituting the southern peninsula were continuous, and extended to the present Lake shore near the mouth of the Humber river, and that the whole of the Humber bay is a denudation of a more modern date, as we shall now endeavour to shew. After the Lake had long remained stationary, at the elevation of 208 feet above its present level, a subsidation of nearly 100

feet had taken place; this subsidation appears to have been gradual, and there is not evidence that so great a deposition of sand had taken place upon the northern shores, as during the former subsidation. The reason appears to be this, during the period when the water of the Lake was stationary at 208 feet above its present level, the river must have cut a level course through all the harder rocks in the chasm of the Niagara river as far up as to the whirlpool; when this last-named subsidation took place, the shales and sandstones which formed the bed of the river could not so long resist its action as to produce much effect by its downward current upon the bed of the Lake. Besides this subsidation brought the level of the Lake down to very nearly the elevation of the plains between Queenston heights and the present shore of the Lake, or, from 8 or 10 miles from the point where the river left the chasm, the Lake was extremely shallow, and we find that during this period of subsidation instead of the current acting upon the central parts of the bottom of the Lake, it had excavated a large basin where the villages of Queenston and Lewiston now stand, or just where it left the chasm. But the action of the current seems to have been even more powerful than before upon the north side of the lake, although its direction was changed, as might be expected by viewing the course of the river at the mouth of the chasm. Its ravages appear to have been chiefly confined to the Humber bay, and then to have opened Toronto harbour to the Lake upon the west, and to have sent a powerful eddy current through it to the south east.—The margin of the Lake during this period, was that hill upon which Mr. Elmsley's house is built; but it is not necessary for our purpose to dwell longer upon this subject. Let it suffice, that the next subsidation had reduced Lake Ontario to its present level, and opened a new course for the Mississippi waters—leaving our Harbour nearly as we now see it, only the bar on the south side of the swamp from the southern peninsula to Scarborough Heights, appears to have been formed by the present currents of the lake—and during the present reduced state of the Niagara River.

We shall now proceed to the second division of our subject, viz: the existing phenomena of Toronto Harbour.

Of these, the currents in the harbour are the

most interesting, as well as the most important; but I must be allowed to state, that what I am about to describe in the first place, is what existed four years ago; for since the late rise of the Lakes, a breach has been made in the bar to the eastward of the swamp, which has caused these currents to cease for the present, and has produced other currents, which will be described as we proceed.

When the wind blows strongly from the westward, the waves are driven into the mouth of the harbour with very considerable force, and act with much effect upon the north shore, (this effect has been increased since the Government wharf was built) the constant action of these waves rolling inward produces a very sensible current flowing to the eastward of the harbour, but after the gale has continued for a considerable period, the water at the head of the Lake becomes lower, and an under current to the westward flows out of the mouth of the harbour, in order to restore the equilibrium between the water of the Lake and the water of the harbour; this under current is drawn chiefly from the south side of the Lake, for this reason, that the inward waves produce a contrary current upon the north shore, and prevent the water from flowing back in that direction.— Thus a circular current is produced all around the edges of the basin, the water of the harbour is prevented from stagnating, and is periodicaly changed. The phenomena of a double current is also beautifully illustrated at the mouth of the harbour. When the wind blows strongly from the eastward, the reverse of all this takes place, for the water becomes raised at the head of the Lake, the surges are forced into the Humber Bay, and whilst the waves raised in the harbour are forced outward, a powerful current underneath is rushing inward, to raise the water in the harbour to the equilibrium of the waves on the shore outside. This process has been known to raise the water in the harbour as much as six or seven inches,— and it must have produced a powerful effect in cleansing the harbour in those times before the swamp became connected with it; since then its powers must have been comparatively weak.

We may as well remind you, that we have already shewn that the bank which divides the harbour from the swamp is of old formation, and that long after the bar had been formed upon the south side of the swamp, the harbour and

the swamp do not appear to have had any connection with each other. Indeed this is proved by the well-defined former outlet of the surplus water from the swamp, still visible, close by Scarborough heights. It would appear that in these early times, the swamp had received the waters of the Don, and other streams. These in the unconsolidated state of the soil, and probably by the bursting out of secondary Lakes, undoubtedly carried into it a much greater quantity of alluvia than they do at present;— water plants had taken root, and the processes of growth and decay had, as usual in such cases, converted it into a semi-fluid morass. In process of time the surges of the Lake had blocked up the outlet to the eastward, and caused the water of the swamp to rise much higher than the water in the harbour. These waters had then overflowed and burst through the barrier on the west which separated them from the harbour, and poured in a deluge of water and mud into it; the which mud remains in the harbour till now, and toward its eastern end covers the bottom to the thickness of 5 or 6 feet, and to an extent nearly equal to one third of its whole area; this was the greatest injury which the harbour of Toronto has ever sustained.

We have already remarked, that those currents above described have ceased to act during the last four years; this is owing to an extensive breach effected in the bar upon the east side of the swamp during the late rising of the Lake, which allows the water to flow freely through the harbour from east to west and from west to east. During the autumn of 1838, accident put me in possession of valuable information upon this subject. I was travelling one afternoon along the Lake shore road, the Lake was subsiding, and the water in those large ponds upon the north side of the road was several inches higher than the water of the Lake; just as I was passing, one of the ponds burst out, the water flowed off like a deluge and carried several large pieces of turfy swamp weeds out into the Lake, where they floated about. Next day I was down at the harbour, and found several of these pieces of turfy swamp, which I saw carried into the lake on the previous day, drifted ashore near the Commissariat wharf. The weather was perfectly calm, and they could only have been brought there by an ordinary current; it is therefore a fair inference,

that at this present time, during calm weather, the current of the river Humber flows eastward through Toronto harbour and the swamp, and passes into the Lake through the opening in the bar; but it is equally certain that when the water has become low at the head of the Lake, a current flows in through the opening in the bar, and passes westward through the harbour.

It will require several years before the full

effect of the present state of things upon the harbour can be properly estimated, but during the survey of the north shore, which I made last summer, preliminary to laying out the breakwater, pier, wharves, &c. now in progress, I did not obtain any perceptible differences from those results given upon the chart and sections now shewn, which were obtained five years before.

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## MONTHLY SUMMARY.

The Legislature of Nova Scotia was prorogued on the 10th of April by His Excellency Viscount Falkland, in the following

### SPEECH:

*Mr. President and Honourable  
Gentlemen of the Legislative Council:*

*Mr. Speaker and Gentlemen of the  
House of Assembly:*

The public business having been brought to a close, I am enabled to release you from your Legislative labours.

I cannot dismiss you to your several Counties, without offering you my congratulations on the results of a Session characterised by great activity, and during which a variety of important measures have been perfected.

Questions of paramount interest, and on which public opinion had long been divided, have been determined in such a manner, as will I trust, redound to the advantage of the community in general. A material, and, I believe, beneficial change has been effected in the Judiciary of the Province. An Act called the Lands and Tenements Bill, by which a Creditor is secured in his just rights, while the Debtor is protected from extortion or oppression, and which had been under discussion for a period of nearly seven years, has been at length so framed as to meet all objections, and will at once come into operation. The Court of Marriage and Divorce has been remodelled and essentially improved; and our Criminal Code consolidated and simplified, and assimilated to that of England.

While these alterations have been accomplished in the Jurisprudence of the Colony, other matters of equal consequence have not been unattended to by you. It is with much pleasure I assent, in the name of the Queen, to

the Bill on the subject of Education, which, although it does not affirm the principle of direct assessment, in my opinion the mode that must eventually be resorted to of meeting the difficulties by which this question is surrounded, yet does enough to render the redemption of the pledge I gave you at our meeting "to concur very zealously in any attempt you might make to ameliorate the existing state of things" both gratifying and easy of performance.

I earnestly hope that the course you have adopted, with a view to the encouragement of Agriculture, and in the design of protecting the Fisheries, may be attended by the advantages you anticipate from it.

In addition to the measures I have enumerated, in themselves of sufficiently extensive practical influence, together with many other enactments suited to the wants of the country, an Act incorporating the City of Halifax has been passed, and the principle of self-government in local affairs has been introduced among Her Majesty's subjects in Nova Scotia, where, I trust, it will hereafter be generally and successfully developed.

*Mr. Speaker and Gentlemen of the  
House of Assembly:*

I thank you for the Supplies granted for the current year, and assure you that the authority of the Executive Government shall be exerted to prevent any ill-considered expenditure of the public money, and that no negligence in the expenditure of the services for which it has been voted, will be in any degree tolerated.

*Mr. President and Gentlemen of the  
Legislative Council:*

*Mr. Speaker and Gentlemen of the  
House of Assembly:*

It is most satisfactory to me to be able to state, that not one Bill has been presented by

the Executive to Parliament but which has, after searching examination, been found worthy of adoption; while I am able consistently with my duty to the Queen, to agree to every Act that has emanated from either branch of the Legislature. I cannot but regard this fact as a decided indication that my administration is approved of by the public, and that those by whom I am fortunate enough to be ably and efficiently assisted in the conduct of the Government, and to whom I am deeply indebted for the readiness and zeal with which their aid is at all times afforded, enjoy (in the degree in which, for the successful carrying on of the business of the Colony, it is necessary that they should enjoy it,) the confidence of the people.

I thank you very sincerely for the support you have given me, in my efforts to do my duty by my Sovereign and the Province, as well as for the candid consideration you have bestowed on all measures submitted to you, by my direction, with the sole object of advancing the public interest; and, for the present, I cordially bid you farewell.

This session of the Nova Scotia Legislature is important, as it put to the test the new principles on which the government is constructed, and by which it is for the first time during several years, placed in a majority in the Assembly. These principles are those that guide the government in Canada, and they have received the sanction of the reformers of Nova Scotia, an attempt to pass a vote of censure having had only six persons to support it out of a House of fifty-one. Thus that ultra spirit which seeks more the triumph of party than the establishment of correct principles, and the adoption of suitable measures, has been repressed, and the reformers of Nova Scotia have set a praiseworthy example of moderation in waiving some of their just claims for the sake of peace and unity. This may be displeasing to a few whose zeal outruns their discretion, but it will be found the wisest course for permanent power. Correct principles will work their way, and in the end either render those who administer them conformable thereto, or supersede them by others to whom they are congenial. To have broken up the former exclusive system, and have introduced liberal men, liberal principles, and liberal measures into the legislature and the government, is a great advantage gained, and if it be wisely followed up it will lead to all that can be desired by any reasonable man.

His Excellency Sir William Macbean George

Colebrooke, K. H., the successor of Sir John Harvey in the Government of New Brunswick, arrived at Frederickton on the 23d of April, and assumed the government on the 27th. His Excellency has seen much service, both military and civil, and is said to be well qualified by his business manners and habits for the duties of the government.

His Excellency Sir John Harvey has been appointed Governor and Commander-in-chief of the Island of Newfoundland and its dependencies. The appointment is dated April 29th. If Sir John Harvey succeed in quelling the disorders of Newfoundland, as he did those of New Brunswick, he will acquire an enviable distinction as a Governor. He has less promising materials to work upon and work with in this case than he had in the other, yet we have confidence in his success.

A public meeting was held at Annapolis, Nova Scotia, on the 1st of May, in order to consider the propriety of taking measures for the union of the Provinces of Nova Scotia and New Brunswick. The Sheriff of the County was called to the chair, and several speeches were made setting forth the advantages of the proposed union by an assimilation of the provincial statutes and duties, an uniformity of currency, concentrated talent in the Legislature, and other important results. Resolutions were unanimously passed in favour of the union, and a committee was appointed to prepare an address to the Queen on the subject. Nova Scotia and New Brunswick were, like the Canadas, originally one, and it is probable that their mutual interests would be best promoted by a reunion; but the subject requires further discussion before any decided opinion can be formed on it. At present, in consequence of the difference of duties in the two Provinces, the trade between them in their own productions, instead of being regarded as a coasting trade, is subject to all the delay and expense of Custom-house regulations.

The alterations proposed by Mr. Labouchere in his new customs bill are approved by the commercial body in New Brunswick. The annual report of the Committee of the Chamber of Commerce for the City of St. John, says; "Your Committee rejoice to hear that it is proposed by the new Customs Act of the Imperial Parliament, to restrict duties paid on the articles therein specified, when introduced into

these colonies, to 7 per cent *ad valorem*, and they hope that our Colonial Legislature will follow out this truly liberal and enlightened policy of the Parent Government, and not neutralize (as heretofore) the benefits anticipated from the operation of the Act, by the addition on the same articles, of heavy and onerous provincial taxes." The imports for the last year at St. John and its out-stations, exclusive of St. Andrews, amounted to £1,433,474 sterling, or £1,592,748 currency. Of this, £100,000 currency is the value of imports on articles the growth and produce of the adjoining Colonies, which, say the Committee, "can never be taxed by any of them in their mutual exchanges without injury." The report mentions that Captain Bayfield is about to begin a survey of the Bay of Fundy.

The Post Office arrangements have been so much improved this season, that on the 12th of May we received *via* the St. Lawrence the news by the *Britannia* Halifax Steam Packet, which left Liverpool on the 20th of April, making 22 days to Toronto; and on the 24th of May we had the news by the *Caledonia*, which left Liverpool on the 4th. This passage of 20 days from England to Toronto, and entirely by the British line throughout is highly creditable. And Mr. C. Wood stated in the House of Commons, that the increased revenue to the Post Office, by increased correspondence, in consequence of the establishment of the Halifax line of steam packets, had nearly covered the expense of the contract (£60,000 per annum).

Mr. Alexander McLeod has been removed from Lockport to New York, and a motion has been made in the Supreme Court for his discharge. This motion was fully argued on both sides, and on the 20th of May it was ordered that as it was "improbable that the Court will be able to render its judgment in the premises at the present term," "the defendant be committed to the custody of the Sheriff of the City and County of New York, until the further order of the Court.—When the transfer has been made, the Sheriff of Niagara will be no longer chargeable with the custody of the defendant."

The following petition has been prepared in Montreal, and extensively supported, being signed by the principal merchants, including the Committee of the Board of Trade. It agrees with the plan brought forward in the *Review*,

and will meet the wishes of all parties in Canada:—

*The Humble Petition of the undersigned Merchants residing at Montreal, in the Province of Canada,*  
Respectfully sheweth,

That your Petitioners have heard of some proposed changes in the duties hitherto imposed upon articles of foreign produce or manufacture imported into the British North American Colonies and Your Majesty's Possessions in the West Indies.

That although your Petitioners are satisfied with the proposed changes, as being just, and in many respects beneficial, still they view with great apprehension, the deprivation of the valuable trade they have hitherto enjoyed with the West Indies, which has afforded them an outlet for their pork, beef, flour, butter, and many other articles of Canadian produce, and hope they may be compensated by the markets of the United Kingdom being thrown open to them.

That the duties now imposed on beef, pork, butter, and lard, in the United Kingdom, are so heavy as to be almost prohibitory, and such articles are produced in Canada to a large extent.

That the quantity of wheat and flour produced in Canada is yearly increasing, and consequently requires every possible encouragement.

That in case all duties are taken off from Canadian provisions, and it should be desirable, at the same time, to prevent the produce of the United States of America from being exported to the United Kingdom on the same terms,—your Petitioners suggest that a duty might be levied on the frontier, for the use of Your Majesty's Treasury, on articles produced in the United States, imported into Canada, the same as on other foreign produce, and at the same rates, and that after such duties shall have been paid, such provisions be put on the same footing as Canadian produce, when imported into the ports of the United Kingdom.

Wherefore your Petitioners humbly pray, that your Majesty will repeal all duties now levied in the United Kingdom, on beef, butter, pork, and lard, as well as on wheat, rye, Indian corn, barley, oats, buckwheat, beans, peas, and other grain, and the flour made therefrom; levying on the frontier of Canada, adjacent to the United States of America, such duties as may be considered sufficient, and allowing all provisions from Canada, after paying such duty, to enter free into the ports of the United Kingdom, allowing a draw-back if re-exported to the United States of America, and your petitioners as in duty bound will ever pray.

The Chancellor of the Exchequer brought forward the Budget in the House of Commons on the 30th of April, and the following abstract of his speech on the subject explains the nature and reasons of the contemplated changes in the duties on foreign and Colonial produce. It will be seen that Colonial timber will still have a protection of 30s. per load:—

#### THE BUDGET.

In the House of Commons, on Friday evening, the Chancellor of the Exchequer made his financial statement. He said that when he came forward last year

he had anticipated that the expenditure would amount to £49,499,000, and the income to £48,641,000; leaving a deficiency of £858,000. The actual results of the year had been less favourable than he had anticipated, for though the expenditure had amounted only to £49,285,000, the income had only reached the sum of £47,443,000, leaving a deficiency of more than £1,840,000. The Right Honourable gentleman then went over the revenue-tables, and enumerated the several items in the customs and excise in which there had been a falling off or an increase. Among those in which a more marked falling off had taken place he enumerated currants, molasses, spirits, sugar, tea, wine, and sheep's wool; but for the decline in each of these a reason would readily suggest itself to the House. The diminished revenue from sugar and molasses Mr. Baring attributed to the exorbitant price to which that article had risen; the anticipation of a commercial treaty with France had naturally tended to interfere with the duty arising from wine; and in the diminished consumption of spirits Ireland bore a large share—but, however that circumstance might inconvenience his statement that evening, he should be ashamed of himself if he did not allude to it with sincere pleasure. The revenue from the Post Office had fallen short of his expectations; but that was owing not to a deficiency in the anticipated increase of letters posted, but to the increased expenses which had become necessary in consequence of the opening of railroads, and of the great augmentation in the business of the office. For the ensuing year he calculated that the national expenditure would be—

Interest on the Debt,.....	£29,424,000
Other charges on consolidated fund	2,400,000
Army .....	6,587,000
Navy .....	6,805,000
Ordnance .....	2,075,000
Miscellaneous .....	2,935,000
Extraordinary Expenses for Canada	180,000
Expedition to China .....	400,000

Making a total of....£50,731,226

The items having been given in round numbers, the total would not exactly agree with them, but the total was as he had given it. The Chancellor of the Exchequer next entered on the items of the revenue which he anticipated for the ensuing year. The customs, he expected, would produce £22,000,000; the excise, £14,000,000; the stamps, £7,130,000; and he thought he might rely upon it that the total revenue would not fall short of £48,310,000. This would leave a deficiency of £2,421,000 to be provided for. Mr. Baring entered into some explanation to show that the permanent deficiency, which he would really have to provide for would be £1,700,000, as several items of the expenditure of next year were of an extraordinary character. Under these circumstances, it became necessary to find some means to make up the revenue of the country to £50,000,000. No taxation could be so injurious as a permanent disorder in the national finances, and the sum they had now to provide for was so large as to make it absolutely necessary for them to act with some degree of boldness. The question was how to do so. Should Ministers fall back upon taxes which they themselves had not long ago repealed—the house-tax, for example, or the tax on coals? Should they impose taxes on things that had been hitherto exempt—place a legacy duty on real property, or a tax on agricultural horses? Were they to lay a tax upon new articles of strength which had come into existence since the system of taxation, such as gas or steam? Ought they to adopt

the once executed, though now popular plan of a property tax? Or might they not make some new arrangement of existing taxation, so as to obtain the needed supplies without adding to the burdens of the people? He was sure that two articles, sugar and timber, had already suggested themselves to the house as those with which it was his intention to deal. The present duty on Colonial timber amounted to 10s a load, and on Baltic timber to 5s. This duty Lord Spencer had proposed to modify by raising that on colonial to 20s., and reducing that on Baltic timber to 5s a load. Mr. Baring intended to adopt the proposition of his noble friend. From this change in the timber duties Lord Spencer anticipated an increased revenue of £750,000, but said that he should be content with £600,000. Mr. Baring should be content to take the same sum as Lord Spencer. He next explained that the alteration which he intended to propose in the sugar duties would still leave a protection of 50 per cent to colonial sugar. He meant to leave the duty on colonial sugar at the present amount of 24s per cwt;\* but that on foreign sugar, now amounting to 63s he should propose to reduce to 36s per cwt. From this change in the sugar duties he expected an augmentation of £900,000 to the revenue, but he would estimate it only at £700,000. From sugar and timber, then, he looked for an increase to the revenue of not less than £1,300,000; which would still leave a deficiency of 400,000 to be provided for. His noble friend had that evening given notice of his intention, at an early period, to submit the question of the corn trade to the consideration of the house; and if the propositions of his noble friend were agreed to, he should be under no uneasiness respecting the remaining £409,000. If they were not agreed to, it would of course become his imperative duty to make provision by direct taxation. Mr. Baring went on to ask the house to look at the present aspect of public affairs. There was the German League extending its influence and increasing its protective duties; there was the American tariff; and there was the treaty with the Brazils, the renewal of which would soon have to become matter of negotiation. But it would be in vain to press upon those nations a liberal line of policy, if this country were to keep up prohibitions under the name of protection; they would retort, "We hear what you say, and we see what you do." If there was any intention whatever to admit the produce of foreign countries, the house would feel that they ought not to delay and postpone until they lost the markets of the world, and had nothing left but to give way with regret and despair.

A long debate ensued, in the course of which ministers were taunted with improper motives for their intended delay in bringing forward a measure which their chief had but lately declared to be the first step to insanity, with having added every year to the embarrassments and expenditure of the country, whilst its income has been constantly diminishing, with the probability of the charge of the timber duties ruining the trade of Canada and the shipping interests.

The Chancellor of the Exchequer explained that £800,000 had been voted on exchequer bills to make up the deficiency of £1,300,000 of last year; that £750,000 would be paid out of the Savings' Banks, and that government were prepared to extend their revision of the tariff to other branches of trade, but must first grapple with the corn-laws.

\* To these amounts of the existing and proposed sugar duties must be added 5 per cent. on account of the augmentation of taxes last year; of which Mr. Baring still takes advantage.

Lord John Russell stated that the corn-law proposition would embody the principle of a moderate fixed duty, and would be brought forward as a cabinet question.

The Chancellor is to submit the resolutions in which his scheme is to be incorporated on Friday.

Lord John Russell gave notice for the House of Commons to go into Committee on the Corn laws on the next order day after the 31st of May. Ministers intend to propose a fixed duty instead of the present changeable one, but what the amount of this fixed duty was to be had not transpired. It has been conjectured at 8s. per quarter, and at 10s. It is probable that the duty on Colonial bread-stuffs will also be reduced, if they are not admitted at a nominal duty, which is most probable.

The following despatch on the Land Granting System is from Lord Sydenham to Lord John Russell:—

**Copy of a despatch from Lord Sydenham to Lord John Russell.**

} GOVERNMENT HOUSE,  
} Montreal, October 12, 1840.

MY LORD :

I have the honour to acknowledge the receipt of your Lordship's despatches of the 31st August and 3th September, Nos. 213 and 221. As the subjects of these despatches are intimately connected, I answer them together.

It is unquestionable that the land revenue of Lower Canada has been very inconsiderable during the last few years, but, in attributing the diminution, as I understand your Lordship to do, to the effect of Lord Durham's proclamations respecting squatters and militiamen, your Lordship appears to have fallen into an error. At the time when Lord Durham commenced his enquiry into the disposal of Crown Lands, he suspended the sale of them, and that suspension continued until it was altered lately by myself.

The only sums, therefore, received since that on account of the land revenues, have been instalments for lands previously purchased, rents for lands under lease, and payments for licences to cut timber. These sources of revenue are of course inconsiderable when compared with the proceeds of the sale of land when the old system was in full operation. I feel confident that as soon as the new system shall be in operation, the land revenue will not only equal, but exceed what it was in former years. I do not perceive that it can be affected in any way by Lord Durham's proclamations respecting squatters, because by setting up all unappropriated Crown Lands for sale at a fixed price, the exclusive privilege conceded to that class by Lord Durham, is at once neutralized. But in order to avoid any difficulty, the notice, of which the enclosed is a copy, was issued from the Crown

Land Office simultaneously with the new land regulations, requiring that all claims under Lord Durham's proclamation shall be lodged before the 22d of January next. Your Lordship's despatch contemplates closing those claims at even an earlier date; but as the curtailment of the time would now be comparatively immaterial, and as any interference with a notice of this nature might give rise to complaint, and be regarded as a breach of faith, I trust your Lordship will not disapprove of my leaving the matter as it at present stands.

I now proceed to notice the report of the Land and Emigration Commissioners, and in doing so I must express the satisfaction I have derived from the different communications from those gentlemen with which your Lordship has favoured me, exhibiting as they do great attention to the important subject entrusted to them, and expressing opinions in which for the most part I quite concur.

First, the Commissioners express their dissent from the principle of affixing different prices on land in different localities. Were Lower Canada a wilderness now about to be settled for the first time, I should agree with the Commissioners. The principle of leaving the choice of the purchaser unfettered and influenced is no doubt abstractedly correct, but it cannot be applied to such a country as this without modification. Under the old system settlement has been encouraged in every part of the Province indiscriminately; and although the concentration has naturally taken place in localities enjoying peculiar advantages, there is a very large population scattered through the more remote parts of the province. To fix a uniform price on all lands would draw away population from these less favoured districts, and concentrate it altogether in the neighbourhood of the large towns and rivers. This would not only be a hardship on the more remote districts, but would have a bad political effect by leaving those districts, principally inhabited by French Canadians, to grow up in their national prejudices and habits without any sympathy with their fellow colonists.

The fear expressed by the commissioners that the low price of the inferior lands may tempt those who should be labourers to become landholders is, I think, quite visionary. As the whole price must be paid at the time of sale, and as there is no intention of breaking up the land into small locations, there is no ground to apprehend that men without capital can become purchasers. It is not from the acquisition of land by poor men, but from the speculation of the rich that the country has suffered and continues to suffer. And for this evil the remedy is not to be found in an increase of price, but in the imposition of an annual tax.

On this latter point, the imposition of a tax, your lordship is well aware of my opinion, as it

was one great object of the municipal clauses proposed by me for the Union Bill. The omission of those clauses has indeed put it out of my power to adopt any immediate step in the matter, and for this most serious evil Her Majesty's Government and Parliament are deeply responsible; but my whole experience in these provinces tends to confirm my opinion of the necessity of such a measure. Mr. Buller, in his report to Lord Durham, contemplated, as the Commissioners observe, a tax on wild lands only; but I agree with them that the tax should be on all lands, whether wild or cultivated, and that it should be uniform in amount. On cultivated land it would in fact be scarcely felt, but it would operate as a penal tax on wild land, and it would compel the owners either to cultivate or to dispose of it. If applied to local improvements, such as the opening and maintenance of roads, the repair of bridges, &c., it would be the greatest boon ever conferred on the country; and so general is the concurrence of opinion in its favour that I do not altogether despair of being able to obtain its imposition.—Some of those who, from holding large tracts of wild land will be most seriously affected by it, generally admit that in a short time they would gain rather than lose by it.

In respect to the amount of the price fixed by me as compared to the upset price in the United States, the remarks of the commissioners originate in a want of accurate acquaintance with the circumstances of the respective countries. It is true that land is subjected in some of the States of the Union to direct taxation, which, *pro tanto*, increases its price to the purchaser—but on the other hand, the facilities of communication are so much greater in the United States, population so much denser, and the market so much more accessible, that land there with all its incumbrances is far more valuable than land in Canada. I have little hesitation in saying, that land in the State of Vermont or New York, is cheaper at 6s. 3d. than in Canada at 6s. It is to be remembered too, that although the settler may pay fewer taxes in money for the land he occupies on our side of the line, he is in reality exposed to far heavier charges in another shape. Those taxes go to make roads, establish communications, and at once improve the value of his property and diminish the expense of cultivation and residence to the settler in the United States, whilst on our side, under the present system, although the tax-gatherer does not demand it, a far greater outlay than he could claim is expended by the settler in a variety of charges arising from the absence of these advantages which are the result of the tax.

The commissioners are further mistaken in supposing that there is any sentiment among those who emigrate from England, sufficiently strong of itself to counterbalance any consider-

able advantages which they might obtain by settling in the States. Such is not the case. In order to retain our emigrants, and more especially that valuable class, the small English farmer, we must make it their advantage to stay with us; and I should therefore decidedly disapprove of any increase in the price of land, for the present at least, beyond what I have proposed.

With respect to the survey of the land, I entirely agree in the observation of the commissioners. Of late years a much more perfect system has, I am informed, been pursued; but there is no doubt that in former times, surveys were very inaccurately made, and descriptions very carelessly drawn up. The difficulties which may arise from this, when the country comes to be more thickly settled, and land increases in value, it is perhaps, impossible to exaggerate; and I should be very anxious to adopt some steps, while it is yet possible, to avert them.—But the question is of so much importance, and so intimately affects the right of property, that I require more time for consideration before pronouncing any opinion as to what should be done. In the mean time, your Lordship may be assured that every care shall be taken to ensure the accurate survey of all land which may hereafter be sold. I shall refer for the consideration of the Commissioners of Crown Lands, and the Surveyor General, the proposition that, in future, lots shall be laid out in equal parts of a square mile, the smallest lot consisting of one-half of a square mile; and I shall reserve my opinion on this point till I receive their report.

I also concur in the opinion of the Commissioners, respecting the establishment of land offices in several parts of the province. Indeed the system has, to a great extent, prevailed for several years in both the Canadas; and in regard to the speedy completion of patents, your Lordship will observe, in the notice issued from the land office, it is expressly stated that steps will be taken for that purpose. The present system is cumbrous and dilatory to an excessive degree: but I trust I may be able to effect such alterations as will ensure the issuing of a patent within a week or ten days after the payment of the purchase money.

The reservation of minerals has hitherto been inserted in all grants, in conformity with the Royal instructions; but I have no doubt that, for the future, it may be better omitted.—If it has any effect at all, it must be injurious. The reservation of particular descriptions of timber is a more serious question; but, even with respect to this, I am disposed to think that an alteration should take place. The only timber which the Crown requires is that for masts in the Royal Navy. The timber on account of its size, is more valuable for masts than for any other purpose, and would consequently be



always disposed of to the Admiralty agent, in preference to any other purchaser. The privilege of the Crown has hitherto been, in fact, inoperative; and the only attempt to put it in force (that which has been directed by your Lordship, in favour of Messrs. Chapman,) has called forth very strong and forcible remonstrances from all parties interested in the trade. I shall have to address your Lordship more at length on this point hereafter. In the mean time, I would merely request that the clause relative to reservations in grants may be omitted from the Royal Instructions.

The encouragement of settlers from the United States, by any direct alteration of the existing law, I should deprecate at the present moment. Practically, there is, I believe, no difficulty in their acquiring land; but I do not think it would be advantageous to confer on them, as a right, what they now enjoy only on the sufferance of the British Government. With every respect for their energy and intelligence, and fully admitting that, as the pioneers of civilization, they are superior to every other people, I do not think it would be wise, by any general measure, to invite their settlement in large numbers in the most populous portions of Canada. There is a spirit of propagandism among American citizens, which makes it necessary to observe great caution in this matter. At the same time, I think that, in individual cases, their claims to be admitted to the rights of British subjects on certain conditions, should be considered in the most liberal spirit; and I am happy to believe that, for several years past, this spirit has prevailed in both provinces.

I have now gone through all the suggestions of the Commissioners of Land and Emigration; and it is satisfactory to me to find that there is little difference between the views of those gentlemen and my own. The subject of the disposal of the Crown Lands is one of the most important which it is my duty to consider; and, in the settlement of the executive departments, under the Union Bill, it will be my endeavour to make such arrangements as may ensure the efficient discharge, for the future, of the duties of the Commissioners of Crown Lands and Surveyor General. The errors of former systems, and the long continued neglect of this branch of the public service, have no doubt created difficulties of a very serious nature; but I trust that it may be in my power to overcome them, and to introduce into this portion of the administration a system which is both advantageous and satisfactory to the public.

I take this opportunity of acknowledging your lordship's despatch of the 1st August last. No. 195, and of informing you that I have directed the questions proposed by the Land and Emigration Commissioners to be printed and distributed among all those who may be able to give accurate information on the points adverted to by them.

I shall take another and early opportunity of replying to the communication from the Commissioners on the subject of Emigration, transmitted in your despatch, No. 291, of the 13th August.

I have, &c.

(Signed) SYDENHAM.

The Right Hon.

Lord John Russell, &c.

The Provincial Parliament has been prorogued to the 14th of June, then to meet for the despatch of business.

His Excellency the Governor General and suite arrived at Kingston on the 23th of May, when there

was a general procession of the inhabitants to welcome His Excellency.

*To the Right Honourable CHARLES, BARON SYDENHAM, of Sydenham in the County of Kent, and of Toronto in Canada, one of Her Majesty's Most Honourable Privy Council, Governor General of British North America, &c. &c. &c.*

MAY IT PLEASE YOUR EXCELLENCY :

We, the inhabitants of the Town of Kingston, beg permission to most respectfully offer to Your Excellency, our sincere congratulations on your arrival at the Seat of the Government of United Canada.

We have learned with feelings of extreme sorrow, that Your Excellency suffered under a painful indisposition; and it was with anxious solicitude we daily awaited the announcement of your restored health. In these feelings we participated with our fellow-subjects throughout the Province, for whose general benefit you have undergone those mental and bodily labours which could scarcely fail to press on the human constitution.

It is needless for us to assure Your Excellency that we rejoice that it has been our providential lot, to be placed in a geographical position so favored, as to be selected by those most competent to decide this momentous question, for the location of the Government of this extensive Province. But while we behold with humble gratification this important change in our condition, we cannot but feel sensible that considerable personal inconvenience must, for the present be experienced by many who will necessarily accompany this movement; and it becomes our duty as it will be our endeavour, as far as lies in our power, to render those inconveniences as little pressing as possible on those exposed to them.

With respect to Your Excellency personally, we take this occasion to declare, that we should be wanting in every feeling of gratitude and duty, were we to fail in ministering by all the means within our power to Your Excellency's comfort and wishes; and we fervently hope that notwithstanding the disadvantages of temporary accommodation, Your Excellency may enjoy uninterrupted health and happiness.

On behalf of the Inhabitants,

(Signed) J. COUNTER, Mayor.

**His Excellency's Reply.**

MR. MAYOR AND GENTLEMEN :

I accept with great pleasure the welcome which you offer me on my arrival at Kingston.

Having felt it to be my duty, with reference to the general interests confided to my care, after due consideration to fix upon your city as the place where the first Legislature of the Province of Canada should meet, I learn from you with satisfaction, that the inhabitants are determined to use their best efforts to contribute to the comfort and convenience of those whom the public business must necessarily assemble there. It is unquestionably your interest to do so.

On my own part I thank you for the expression of your sympathy for the sufferings with which I have been afflicted. The interest which I take in the welfare of this Province, and my deep conviction that the present is a crisis in its fate, will I trust under Providence, support me in the task which yet remains to be performed, and enable me even under the disadvantage of failing health and strength, to discharge my duty to my Sovereign, and to the People of Canada, who have afforded me so many marks of their confidence and regard.