

ON THE CONSTRUCTION OF HIGHWAYS. No. 1.

Mr. Editor.—It will devolve on you, when you publish this first number of my essays, to bespeak the patience of your readers in their perusal; and to promise those who will give them due consideration, the satisfaction of easily comprehending the requisites necessary for the execution of Railways, when that subject comes under discussion. All didactic compositions are formidable. All didactic compositions are formidable. All didactic compositions are formidable.

Let it be recollected that when human industry achieved the almost perfection which the use of the natural material enabled them to accomplish in the construction of Highways, there still remained a resistance to locomotion, which in nature is perfectly perfect, its tendency being always to destroy motion, and this force is denominated friction. It is an obstruction opposed to the power of man in all his mechanical pursuits. Happily the active mind is rather inclined to greater exertion to overcome obstacles than to succumb and be subdued by them; and so it has been with friction. As we shall have frequent occasion to allude to this effect, it is advisable that it should be clearly understood. It is the resistance arising from one surface rubbing against another. Neither experience nor research has as yet furnished means for reducing satisfactory laws respecting it. When planed woods and polished metals are rubbed on one another, the friction is one-fourth of the pressure. When grease is interposed, they slide along more easily, because the friction is reduced. A workbox with its bottom covered with tallow, can hardly be pushed over a woaden table cloth. Polished iron pivots, in polished brass collars, produce little friction. The joints of mathematical instruments should be of steel and brass.

When these properties in woods and metals are considered as affecting a retardation of their passage over each other, it is easy to conceive what an increased resistance must be offered to a cart wheel moving along a rough road; that it even required the assistance of Jupiter to help the waggoner out of the clay; that newly-laid broken stones reduce the motive power to a small fraction; and that the Telford or the Macadamized road does not enable the horse power of traction to move more than a ton. It thus appears that the great object of Road makers has been to procure a covering, such as would produce the least resistance to traction.

To the question of "What is the best place to be sought for a road from one given place to another?" the following answer has been proposed: "The shortest distance affording the best materials for formation, with the least number of hills and hollows, requiring the fewest bridges, and offering the greatest facilities to the principal settlements." This different proposition is respectively applicable to a new County, the new Province, and if it had been followed out, by our early emigrants, as it afterwards was on the New-Brunswick Road by the late Hon. Richard Simonds, thousands and thousands of pounds would have been usefully expended, instead of filling the pockets of needy, greedy, and unprincipled speculators.

It was wise in Gov. Parr to place the capital nearly in the centre of New-Brunswick, and for the purposes of navigation the Oranmore offered a better site than Fredericton, yet his location enforced the necessity of opening roads to the interior, and interlarded the country with by-ways, instead of which the shortest lines to the seaboard would have been sought, if Parroton (now Saint John) had been made the capital. Immense sums were voted by the legislature for the construction of Highways; and the supervisors, in whose hands these sums were placed, being appointed by themselves and responsible only to themselves, committed the most laborious part of their duties to men totally incompetent to perform them. For a stipulated sum, two or three experienced settlers undertook to look out the line of road which the supervisor was instructed to open. They uniformly selected the highest ridges to look out the course they should follow, and consequently had to descend to the valleys and swamps that lay in their way. Their time was wasted by their pay, so that a second examination seldom took place; a favourable report was made, and the supervisor commenced operations. This system possessed an advantage which does not seem to have occurred to the minds either of legislators or supervisors, but which greatly contributed both to the practice and profit of the latter.—As soon as a great road was opened, and its hills and dales, its swamps and barrens, its twisting and turning exposed, the voice of the people was heard in remonstrance against it, and their petitions were answered by the legislature granting more money to alter and amend said road. The job pleased everybody; the settlers got their wishes and employment, and the supervisors got their easy-earned per centage. Nobody ever dreamt that study, knowledge, and experience were necessary in the exploitation of Highways and in their construction: A and B know every inch of that Country; A cuts a wild meadow there, and has hunted deer through it every spring; B has been used to travel it and bring home the cattle, since he was a boy—therefore A and B are the fittest men to look out a road, or be appointed supervisors? Although this disgraceful procedure in respect to these matters has been greatly corrected of late years, and we have some supervisors who faithfully carry their experience into effect, yet there are few indeed who have sound knowledge on the location and construction of Highways.

My next, and subsequent papers, will treat of establishing the line; water courses; surveys and sections; transitions from the level; gradients; sections; earthwork; slopes; drainage; culverts; covering materials; and repairs; all of which will form a useful introduction to papers on the formation of Railways which will follow.

AFFAIRS AT CALIFORNIA.—The New York Journal of Commerce publishes the following letter received from California:—

SAN FRANCISCO, NOV. 1, 1849.

This city is going like magic. The change that a few weeks has effected, is truly marvelous. The permanent population cannot be much less than 30,000. Three months since it was 5,000. All is bustle, business brisk, and large store houses, of two and three stories, rising in many directions. Every person has enough to do, for all can do something. Money for all practicable uses is abundant. I know nothing of speculations, and within the reach of all.

Wages are high, and such a country for a poor man has not been discovered in our day. The noise of the hammer and saw never ceases, wide daylight exists; so the constant clink of money is heard; pass which way you may. I never go into a house or an office, that I do not see it.

Truly, as in the days of Solomon, silver is counted of but little value. Expenses too are here enormous, but are freely paid. Whatever bill is charged is promptly paid, and no words unnecessarily expended. Time they say is money, and this is a favorite maxim here. The mines are producing well, and will continue to, for many years to come. This is a truth.

Vast numbers have failed, but the causes of failure were too obvious. The sickness in the interior has been appalling; deaths numerous, and under peculiarly aggravated circumstances; but this has ever been expected by the reflecting as inevitable, crowding, as the immigrants did, into a malarious country, during the heat of summer, and with systems already reduced by long voyages or journeys. The tale is a horrible one, and is yet to be told.

This city is, I think, a healthy one, or would be, under ordinary circumstances.—Everything new is in an unnatural state—an immense population mainly engaged in building a city. The work goes rapidly on, and will be speedily accomplished. But the want of comfortable and fixed residences for young men, who compose the major part of the population is having, and will continue through the winter to have, a most demoralizing influence. They generally sleep in burks, in the garrets of stores, common taverns, boarding houses, or tents, take their meals at restaurants, and of course have no home to invite them at evening. Hence the streets in the evening are thronged; the gambling houses and taverns crowded. Many who, before leaving home would have scouted the idea of approaching a gambling table, now become gamblers. It is horrible to reflect on the inevitable termination.

But still, there is a strong body of moral and religious intelligence, that will soon be felt. These evils will be corrected. Last week a Bible Society was formed, auxiliary to the American Bible Society, which commenced with a handsome subscription, and will be efficient for good.

I do hope, most sincerely, that no more young men, who have been delicately reared, or who have not been insured to labor, will think of trying their hand at gold digging.—There has been and still is a vast deal of sickness in the valleys of the two principal rivers—diarrhea, dysentery intermittent and remittent fevers. Many have died, and large numbers are constantly returning broken down and wasted by disease. Many more would come were they able. Labor is the same as ever—\$17 per day; Carpenters and smiths, \$12 to 16 per day. It is an Elysium for the industrious mechanic. He cannot fail of success if he will be steady, and avoid or resist temptation. The gambling houses do an immense business—crowded nightly by every thing in which circulates Spanish blood. But this is an evil of but a day.

The most objectionable feature connected with the weather, is the wind that rises daily at 12 M., and continues till night, bearing a cloud of fine pulverized clay, perfectly intolerable.

A party of 10 from New York, turned the current of a small stream, and they gathered the first day an average of \$1500 in gold dust, each. They then continued their labors for five weeks longer, and the result was an average of \$100 per day, for each man.

TROUBLES ON THE RIO GRANDE.—The New Orleans Picayune of the 1st, contains information that the French Consul at Matamoros had been arrested, and was to be sent to Mexico under escort, charged with unduly meddling with political affairs, and being one of the chief agents in supplying the Matamoros paper, the Bien Publico, with vituperative articles against the Mexican authorities. Dr. Berlandier and Mr. A. Previno, had also been arrested on the same charge, and an order for the arrest of S. Mussina, editor of the Brownsville American Flag, was issued, on the same general charge, but not happening to be within reach at the time the warrant was issued, he escaped. It is said that much jealousy and ill will have been stirred up between Matamoros and Brownsville, by the smuggling operations which are so extensively carried on along the Rio Grande, having Brownsville for their head quarters. The Mexican authorities, in their efforts to arrest the illicit trade, are accused of having overstepped the bounds of law, and great excitement is said to exist along the American side; which may result

in serious collisions unless more caution is used on both sides.

A private letter received by the N. Y. Courier and Enquirer states that Captain Glover, U. S. Consul for Monterey, had been stopped by the authorities, and the carriage and mules forcibly taken from him; confiscated, and sold, and this though Captain G. was suffering severely from Anemia, requiring him to use crutches. He exhibited his commission and seal of office, but was told in reply by the officers who committed the outrage, that they were acting under orders from the Collector of Camargo. Captain G. reached Monterey after several days' detention.

Notes from Yucatan.—Yucatan advices are to the 16th ult. The war continued to be carried on without any hopes of speedy termination. A column of government troops had shortly since suffered a defeat from the enemy.

The Legislature has sent to the general government, to propose that the State of Yucatan be disposed with paying her contingent expenses for the space of one year, and that \$25,000 monthly be paid her so long as the war of races continues.

The official Bulletin confesses that there have been negotiations on foot with England, who has offered her mediation for the pacification of the country. It asserts, however, that the British government have confined themselves simply to making the offer.

CURIOUS AFFAIRS.—A female boarding school on the frontier of Poland, in the town of Kalish, has been put under arrest for insurrectionary movements. It is announced to the highest tribunals at Warsaw that there has been detected a dangerous political agitation among certain young girls, and they have appointed a special commission at Kalish, to look into the matter. About forty of the pupils of the female seminary of Madame Fullborn, a very large institution, have been brought up for examination—their trunks their music, and particularly their writing books, have been seized—but nothing of importance has yet been discovered; some patriotic songs, national poems and dances were taken into possession. The commission consists of a Russian colonel and several police officers.

The New Post-Office Arrangements.—The Toronto Globe received this morning says, we are sorry to learn that the Post Office arrangements cannot be made so early as was anticipated, owing to the New Brunswick legislature not having yet passed a law for the regulation of their Post Office. We trust that this delay will be very brief, as the New Brunswick Legislature will meet early in the year, and Commissioners from that Province have already given in their adherence to the scheme of a uniform rate of 3d. currency for a single letter. We feel assured that there will be no delay on the part of the Canadian Government in assuming the management of the Post Office department in this Province on the terms agreed upon.—[Quebec Morning Chronicle.]

MEETING OF THE FACULTY IN SAINT JOHN

At a meeting of the Medical Gentlemen of St. John, held in the Mechanics' Institute on Thursday evening the 6th instant, to protest against the conduct of the Commissioners of the Provincial Lunatic Asylum, in their recent appointment of a Physician to Dr. Bayard was unanimously called to the chair, and Dr. Weimore requested to act as Secretary. Previous to the adoption of any resolutions, a letter from Dr. Boyle was presented by Dr. Busford to the meeting, expressive of his full concurrence with the object of it in "maintaining the dignity of the Medical Profession, and in their determination to seek redress in the highest quarter." After which the following resolutions were adopted:—

1. Moved by Dr. W. S. Harding—seconded by Dr. Weimore. Resolved, That there are many Medical Gentlemen practising in various parts of the Province of New Brunswick, who, after regular courses of study, have obtained satisfactory testimonials, of Professional acquirements and qualifications from established schools of Medicine and Surgery.

Moved by Dr. Ruddleok—seconded by Dr. Livingstone. Resolved, That the Lunatic Asylum of this Province was built and is sustained by funds obtained from Public Revenues, to which every Practitioner of Medicine in New Brunswick, as a tax payer, has paid his proportion, and is therefore entitled to fair consideration in the disposal of public officers connected with the profession.

3. Moved by Dr. Travers—seconded by Dr. Miller. Resolved, That the Medical Gentlemen throughout New Brunswick have been subjected to unmerited reflection by the recent proceedings of the Commissioners of the Lunatic Asylum in their appointment of a gentleman from another Province as Physician to that establishment, and they thus publicly record their protest and just indignation.

4. Moved by Dr. S. Bayard—seconded by Dr. Weimore. Resolved, That the Commissioners of the Provincial Lunatic Asylum as at present constituted—four of the gentlemen being members of the Legal Profession, and the others gentlemen of different pursuits, without any member of the Medical Faculty associated with them,—are thereby unqualified to superintend the affairs of a Medical Institution, and that the Commission is therefore viewed by this meeting as an indignity offered to the Physicians and Surgeons of this

Province possessing the confidence of the public.

5. Moved by Dr. Livingstone—seconded by Dr. H. Peters. Resolved, That the conduct of the Commissioners throughout the whole proceeding of the appointment, manifests an undue Executive influence in the exercise of patronage.

6. Moved by Dr. Fitch—seconded by Dr. Sharp. Resolved, That a Committee consisting of Dr. Livingstone and Dr. Bayard be appointed and requested to proceed immediately to Fredericton to wait upon His Excellency the Lieutenant Governor, and present the foregoing resolutions, and to draft and present an address to His Excellency, praying him to issue a new Commission, framed more in accordance with the equal right of all departments of Society, and thereby better calculated to ensure the success and extended usefulness of the Institution.

7. Moved by Dr. Miller—seconded by Dr. Lester. Resolved, That a copy of the foregoing resolutions, signed by the Chairman and Secretary of the meeting, be published. The thanks of the meeting were then given to the Chairman and Secretary.

ROBERT BAYARD, M. D. &c., Chairman. THOS. WEIMORE, M. D., Secretary.

[The Committee above referred to, waited upon His Excellency with an Address, in compliance with the 6th Resolution. His Excellency was pleased to make a reply, in which he does not acquiesce in any of the views or opinions expressed by the Medical Gentlemen of St. John, and holds out no hope of superseding the present Commissioners of the Asylum.]

THE STANDARD.

ST. ANDREWS, WEDNESDAY, DEC. 19, 1849.

Charlotte County Bank. Hon. HARRIS HATCH, President. T. B. WILSON, Esq., Solicitor.

Discount Day—TUESDAY. Hours of Business, from 10 to 2.

Bills and Notes for Discount must be lodged with the Cashier, on or before Monday otherwise they must lie over until next week.

Alms and Relief House. Commissioners—H. H. HATCH, A. T. PAUL, THOS. SAMPTON, JOHN IRVIN, D. BRADLEY.

St. Andrews Steam Mills and Manufacturing Company. R. M. ANDREWS, Esq., President. J. Wetmore, Agent.

Saint Stephens Bank. Wm. Todd, Esq., President. Discount Day—SATURDAY. Hours of business, from 10 to 1.

Bills and Notes for Discount must be lodged with the Cashier, on or before Friday, otherwise they must remain in his hands until the following discount day.

ARRIVAL OF THE STEAMSHIP HIBERNIA.—The English Mail by the R. M. Steamship Hibernia, was received here on Monday night. The dates are to the 1st inst. We can give but a brief summary of the news in our present number. Trade is dull. The prices of Grain and Flour have declined. Money is abundant, and at low rates. The fleet under Admiral Parker, have been ordered to retire from the Dardanelles. A seat in the Cabinet has been conferred on the Right Hon. Fox Maule, M. P. Some large houses in London are shipping Colonial Produce for the United States. It is reported on good authority that Lord Palmerston is determined to allow no American interference in Nicaragua affairs. Rear Admiral Hornby, with his squadron, has been ordered to cruise in the neighbourhood of Panama, and to be within call of the British Charge d'Affairs at Nicaragua. The Pope, finding that his friends in Paris are no longer in the ascendant, has become alarmed, and refuses to go to Rome.

The Marquess of Waterford lately gave two poor men £20 to proceed to America, who were brought before him charged with poaching on his grounds.

The Kildare Hotel, No. 4, Tigue-street, Dublin, was destroyed by fire on the morning of Saturday last, the proprietor, Mr. Hill, having had a narrow escape for his life.

Considerable alarm has prevailed during the week in consequence of the increasing unsatisfactory state of the relations between Austria and Prussia. The resolution displayed by Prussia in following up the long talked of assembling of a German Parliament, which is fixed for the 31st of January next, at Erfurt, has called forth very serious reclamation notes from Austria.

From Constantinople the news only confirms the previous pacific course of events.—It is confidently stated that the British fleet, has orders to withdraw from the Dardanelles, and that it is, indeed, by this time at Malta. Nothing further has transpired respecting the whereabouts of the Polish and Hungarian fugitives.

The Russian ambassador, M. Titoff, has once more been admitted to an interview with the Grand Vizier, and diplomatic relations may thus be presumed, to be renewed between Russia and the Porte.

RAIL ROAD MAKING.—In the Standard of the 5th instant, we stated that a series of original papers would shortly be published on the subject of Road making, introductory to a popular explanation of the formation of Railroads. In our present number we commence the publication of these essays, and request our readers to give them a patient and attentive perusal; by doing so they will not only inform themselves upon the requisites necessary for the completion of Railways, but in a measure qualify themselves to undertake sections of the work on our Railroad. We are well satisfied of the ability of our Correspondent to write upon the subject he has undertaken, and take it as a compliment to be made the medium of giving these essays to the public. They contain some useful hints, which are worthy the attention of Supervisors of roads.

Capt. JOHN J. ROBINSON, R. N., the zealous Agent of the St. Andrews and Quebec Rail Road Company, arrived here on Monday last, and was greeted, as he richly merited, with a right hearty welcome.

The Public Dinner to be given by the inhabitants of this Town and County to Capt. Robinson, as an expression of their best wishes and feelings for his eminently faithful and successful exertions to promote the interests of our Railroad, while in England, is to take place in the Town-Hall Yarmouth, (Thursday) when we hope to see the room filled to overflowing, as a mark of respect to the man whom the people delight to honor.

The Dinner will be on the table precisely at 5 o'clock.

MEETING OF THE LEGISLATURE.—We learn from the New-Brunswick, that the Legislature will not be called together earlier than February. This looks like retrenchment, if the report be correct. The time occupied in debating matters of little moment, and interest for the last four years, during the sitting of the Legislature, has amounted, according to the calculation of one well informed upon these matters, to more than the Provincial revenue for the last year! This day is very near at hand, when many of the evils of our present legislative system will be reformed, and the distributable patronage put a stop to. The people are groaning under the weight of taxation, in a great measure arising from legislative extravagance, and it will remain with them to insist on their representatives to carry out the necessary reforms.

CHURCH SOCIETY.—The Annual Meeting of the Locks Committee will be held on Friday evening, as by reference to advertisement will be seen; when it is hoped the Ladies and Gentlemen, Members of the Society will be present.

MR. MOONEY, the distinguished Irish vocalist, informs us, that he intends to be in this Town positively on FRIDAY evening next, to entertain our musical friends, with his delineations of Irish character and Irish Songs. We have seen a number of complimentary notices of this gentleman's performance, and select the following from the British Whig, Kingston, that our readers may judge for themselves:— "In addition to his many and extraordinary talents as a Lecturer on History, Mr. Mooney, lays claim to the reputation, if not of a good musician, of a very accomplished singer of Irish Ballads. If vocal music consists of measured sounds and intervals, forcibly and correctly given, with great compass of lungs, then Mr. Mooney is no singer—assuredly not; but if, as we humbly conceive, good singing means expression, grace, articulation, feeling, emphasis, joined to the sweetest of melodies, then Mr. Mooney is one of the most delightful vocalists we have ever listened to. All his songs on Tuesday night were received with the most voracious burst of approbation, and several of them were called for again and again. So powerful is his expression, that he exchanges the most melodious ditties into the sweetest of melodies, of which, charming instances were afforded in the delivery of the 'Crucifixion Lament' and others of the old common place Irish Ballads, if any Irish Ballad can properly be called common place.

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A young man, named Anderson, had been taken up on suspicion of having been engaged in preventing the Telegraph wires from working. An examination was held before the Stipendiary Magistrate, and the party has been remanded for trial at the next sitting of the Supreme Court. The evidence was altogether on his own admission, as stated by Stockford the Constable who arrested him, and that no proof of his having committed the deed was adduced.

St. Domingo.—Advices from Port au Prince to the 20th ult., state that the duties will be increased on coffee and logwood.—American provisions were scarce. The Haytien squadron left on the 20th, supposed for Jacmel.

FROM THE MOSQUITO TERRITORY.—Advices from Nicaragua to the 9th inst., announce the union of San Salvador and Honduras.—Great excitement prevailed. "Redivivus" is to be the motto of the new republic. The only cause for apprehensions for the future are the proceedings of the English at the Bay of Fonseca.

Dr. Webster has been found guilty of the