

SUPPLEMENT TO REPORT

OF THE

Railway Commissioners,

OF THE

PROVINCE OF NEW BRUNSWICK,

FOR THE YEAR

1858.

PRINTED BY ORDER OF HIS EXCELLENCY THE LIEUTENANT GOVERNOR, FOR THE
USE OF THE HONBLE. THE LEGISLATIVE COUNCIL, AND HOUSE OF ASSEMBLY.



SAINT JOHN, N. B.,

J. & A. McMILLAN, PRINTERS, 78, PRINCE WILLIAM STREET.

1859.

Railway Commissioners' Office,

Saint John, 8th March, 1859.

TO THE HON.

THE PROVINCIAL SECRETARY.

SIR—

In their Report of 2nd Feb., 1859, submitted to you, the Commissioners endeavoured to furnish all the information on railway matters that they thought would be required. Being called on, however, in terms of the address of the House of Assembly to His Excellency the Lieutenant Governor, of 21st Feb., to supplement that Report; they now proceed to do so, as far as time and circumstances will permit. Some of the details cannot be furnished in the form asked for within a reasonable time, as the classification of accounts adopted, while bringing out the same results, does it in a different form.

In accordance also, with the directions of the Government the accounts have all been brought up to 31st October, the close of the financial year, and it will not therefore be practicable at this time, to give all the details of expenditure asked for up to subsequent periods.

Before proceeding to reply to the questions in their order, the Commissioners think it necessary to a proper understanding of their position, to notice at some length the various circumstances by which their management of the Railway works was, to a considerable extent governed and modified.

When the Railway came into the possession of the Government in the spring of 1856, the whole line had been surveyed and located by Messrs. Jackson & Co. from St. John to Shediac, a considerable portion of the road built between Moncton and Shediac, and some work done on the road between St. John and the Kennebecasis.

On referring to the Report of the Chief Engineer, and to the specification of Messrs. Jackson & Co. and the specification on which the Railway is now being built, it will be observed that there has not only been an entire revision and change of location, but that the whole character of the road is altered

and improved. Curves have been straightened out, gradients lessened, embankments and cuttings widened, culverts of stone, and earthen embankments, substituted for wooden bridges, and the quantity of earth excavation on the line, the governing point as to the quality and cost of a Railway, has been increased by nearly one third.

The difference therefore between what the road might have been built for on the first specification and location, and what it will now cost will be as follows :

Cost of present road per mile,	£8500	0	0		
From which deduct,					
Additional cost of best Staffordshire over Welsh rails,	240	0	0		
Additional earthwork,	633	0	0		
Additional for improved bridges,	351	0	0		
Grading station grounds, Saint John,	138	0	0	1362	0
				£7138	0
					0

Or nearly one hundred and fifty thousand pounds.

There is no information in the possession of the Commissioners, and no records accessible to them to shew on what authority or when, this change in the character and cost of the road was determined on.

On reference to the Contracts for the completion of the road between Moncton and Shediac let in August, 1856, it would appear that no such change was then thought of, as the specification for these works evidently contemplated a road similar to that to have been built by Messrs. Jackson & Co., and the estimates were made up accordingly.

Still later in Feb. 1857, when the road from St. John to beyond the nine mile house was let, it does not appear that the change was thought of, as the work was let by the original location, and the quantities and estimates, founded on the first specification.

The first record of an authority for change is to be found in the minute book of the Commissioners as follows. (The minute is not dated.)

“ Meeting of the Board :

Present—W. H. SCOVIL; F. W. HATHEWAY; JOS. MYSHRALE

Read a letter from Chief Engineer, relative to proposed alteration in line of road, commencing at three mile house, which alteration was approved by the Board.

(Copy of letter.) *Railway Commissioners' Office,* }
 St. John, N. B., 4th May, 1857. }

SIR—Your letter of the 1st instant recommending an alteration in the line of railway from the three mile house towards Lawlor's Lake, has been considered by the Board, and they, having also examined the line, advise the alteration as proposed by you.

Respectfully yours,
 (Signed.) WM. HY. SCOVIL,
Chairman, Railway Board.

To *Alex. L. Light, Esq.,* }
Chief Engineer." }

It does not appear what the extent of the change authorised by this minute was, but as it at least involved a heavy rock cutting, two large embankments and an iron bridge, in place of a road already made on the level, it must have added very considerably to the cost of this expensive portion of the road.

In June 1857 the road between nine mile house and Groom's cove was let, and although the route was changed from Gondola point to Lakefield, yet otherwise the works were let on the original location. The quantities were however in this case, calculated on the new specification.

When the present Commissioners were appointed in August 1857, the road between Moncton and Shediac was about to be opened but was not quite finished. The location had been in some instances revised and altered, the quantities largely increased and the cost nearly doubled the estimate.

Between St. John and the nine mile house the grading was nearly completed, and the work near Lawlor's Lake in progress, but all on the revised location and present specification.

The work between nine mile house and Groom's cove had been commenced, although the contracts had not been signed.

The contract for Hammond river bridge, although let in June, had not been signed, and the site of the bridge had not been decided on.

In December, 1857, the portions of road between Groom's cove and Sussex, and from Moncton to Salisbury were let on the revised survey and present specification, and in November 1858 the remainder of the road between Sussex and Salisbury was let on the same basis.

From the evidence that can be gathered from the Contracts and other written documents, the only conclusion that can be drawn is, that the change in the character of the road,

from the Jackson specification to the present, did not originate at any particular period, but grew with the progress of the work.

On the works let in August, 1856 and February, 1857, change must necessarily have been the rule and not the exception, and from this cause alone a large addition must have been made to the cost.

On the work let in June, 1857 the location has been considerably changed, but as the quantities were ascertained by the new standard, it may be expected that the cost from this cause, will not very much exceed the estimate.

On the remaining seventy miles of road let in Nov., 1857, and Oct., 1858, the surveys having been carefully made, the location revised, and the quantities calculated by the new Specification, there is no reason to suppose that the cost will exceed the estimate by more than the usual percentage.

From what they have felt it their duty to say, the Commissioners do not wish it to be understood that they desire to impute blame to their predecessors, or to any one, for the state in which things have been found. Their wish has been to place on record as nearly as they can in words, the whole facts of the case as known to them, in relation to the character of the road, the changes that have been made, and the cost of these changes, so that the credit or the blame may rest precisely where it ought.

It was also deemed necessary to go thus at length into the circumstances which caused the cost of the finished portions of the Railway between Shediac and Moncton, and St. John, and Kennebecasis so much to exceed the estimates, as without such explanation, it would have been impossible to satisfy the public that the estimates now given of what the ultimate cost of the works may be expected to be, could be relied on.

In judging of things after they have been done, it is always easy to see where errors might have been avoided. As the present Commissioners when they took office, had no greater knowledge of Railway management than their predecessors, it is quite likely that they, in like circumstances would have been led into like errors.

It is now evident that the errors arose from a laudable desire to push forward the work, and from a mistaken idea of economy in not employing before the work was commenced a sufficient number of experienced Assistant Engineers.

Had the character of the Railway to be constructed been first determined, accurate surveys made, and contracts let accordingly, all the changes that have taken place, and the consequent losses and difficulties would have been anticipated or avoided. The Commissioners cannot help observing, that considering the origin of the difficulties they have had to encounter they might well have been spared many of the charges of mismanagement and extravagance to which they have been exposed.

It must not be inferred from anything that has been said that the Commissioners desire in any degree to impute blame or responsibility for the change in the character or cost of the road to the Chief Engineer, nor does it follow that because there is no evidence of the authority under which the changes were made, that there was no such authority.

In terms of the Railway Act, the Commissioners or those who assume to act for them, are entrusted with the construction and management of the Railway, and the Engineer is "to be under the control and receive his instructions from the Commissioners."

The Commissioners feel bound to say that with the knowledge they now have, from the experience they have gained in Railway matters, that they fully approve, with but few exceptions, of the description of Railway now being constructed, as that calculated to be the best and most economical for the country.

In Canada and Nova Scotia, Railways contracted for and commenced with cuttings and embankments such as ours were to have been, had to be altered and improved at a heavy additional expense, and most of the changes on our road have therefore been in the direction of what would ultimately have been found necessary.

With regard to the names given to the Stations, the Commissioners take this occasion to explain that at the outset they found great difficulty in deciding on which to adopt of the many names the several localities were known by. For example the site of the first main Station from St. John was variously known as "the Nine Mile House," "Sheriff Drury's," and "Scribner's."

It was marked as a Way Office in the Post Office Directory as "Kennebecasis Bay."

The Commissioners applied to the Residents in that neighbourhood to fix on a name for the future town or City, but

after much cogitation and many meetings no decision could be arrived at.

The Commissioners were therefore in this instance forced to become name givers, and adopted the Indian name of the magnificent sheet of water in the vicinity ; namely "Kenebecasis" or the Little Kennebec.

A similar difficulty met them at each of the other Stations. The next was known as "Wetmore's," "Gondola Point road," and "Lakefield." The Commissioners adopted the aboriginal name "Quispamsis," or the Little Lake in the Woods. The next locality was variously known as "Little River," "Hammond River," "French Village," and "Alden's. As before, the Indian name of the river "Nauwigewauk" was chosen. And so, in each case the Indian names of the rivers or localities was adopted, unless in one or two instances, where the names "Norton," "Sussex," and "Portage," had become sufficiently established.

Some pains have been taken to get at the correct spelling of the names. The Indian language is not a written one, and therefore the only correct way to spell it is to arrange such a combination of letters, as shall as nearly as possible give when pronounced the requisite sound. The pronunciation of the Indian names in each case has been derived from authentic sources.

The Commissioners will now proceed to furnish the statements and information required, in their order—

No. 1.—"Statement shewing the actual cost of the Wooden Bridge over Robinson's Marsh, (five miles from St. John,) and the difference between the cost of that Bridge and an earthen embankment; with copies of the contracts for the Bridge, and for the embankment, if any."

The Chief Engineer reports as follows :

The following statement shews the actual cost of the viaduct above referred to, (situate five miles from St. John,) and the difference between the cost of this structure, and an earthen embankment. The Contract made with D. P. Myers, on 17th February, 1857 was for "all the work contained in Section No. Two."

Total cost of Earthen Embankment, . . .	£8954	0	0
do. do. Wooden Bridge, . . .	5365	11	2
Difference in favor of Wooden Bridge . . .	£3588	8	10

Actual Cost of Bridge.

"PERMANENT FOUNDATIONS AGAIN AVAILABLE."

126 C. Yds. Ashlar Masonry,.....@ 80s.	£504	0	0
87 " Rubble do.,	16s. 6d.	71	15 6
Cost of Piles,.....		128	10 9
Cost of Driving,.....		497	19 11
		£1202	6 2

BRIDGE PROPER.

Timber,.....	£1149	6	3
Hauling do.,.....	211	17	6
Framing and Planing,.....	1321	10	7
Painting,.....	319	12	9
Iron work,.....	468	5	6
Copper,	1	16	0
Drilling Bolt Holes,.....	31	10	0
Roofing, Asphalte, and Gravel,.....	135	0	0
Powder, moving and use of Engine,.....	74	6	5
Use of Tools, Smith-work,.....			
		3713	5 0
COST OF BRIDGE,	£4915	11	2
Cost of Land taken for Bridge,.....		450	0 0
TOTAL COST,.....	£5365	11	2

Estimated Cost of Embankment.

65,000 C. yds. Embankment, @ 2s.	£6500	0	0
(8 feet arch Culvert, 100 feet long.)			
1000 C. yds. Excavation in Foundation and Stream diversion, partly Rock, say to cover whole, @ 2s. φ yd.,	100	0	0
520 C. yds. Masonry, @ 40s. φ yd.,.....	1040	0	0
100 " Rip Rap in Foundation, @ 7s. 6d. φ yd.	37	10	0
4 Acres of Land for borrowing, @ 100l.,.....		400	0 0
2½ φ cent. on 6500l. for maintenance of Line, independent of wear and tear of Rails, &c.,.....		150	0 0
200 Lineal yds. Tracklaying and Sleepers,		42	10 0
6000 Sup. yds. Trimming and Soiling Slopes, @ 4s.,		100	0 0
COST OF EMBANKMENT,	£8369	0	0
Cost of Land required for Embankment,.....		585	0 0
TOTAL COST,.....	£8954	0	0

The above statements shew the actual cost of the Bridge, and the *estimated* cost of completing the embankment. From this it is clear enough, that a saving in the cost of construction has been effected by adopting the Bridge work.

The quantity of material required in the proposed embankment is calculated in the above estimate at 65,000 Cubic yards, but owing to the yielding nature of the Marsh it may well be questioned whether it might not have required a much greater quantity, as by the displacement of the soft material beneath the surface, there was much cause to have been ap-

prehensive, that the result of the filling in at this locality would have been attended with the same results as have followed similar attempts on some of the bogs in Nova Scotia.

Secondly, there was a considerable saving effected of wear and tear of Rails by the adoption of Bridge work, though no notice is taken of this in the above estimate ; yet that this item is worthy of consideration will be apparent, when it is considered that the large quantities of material required for the embankment must have been brought a very considerable distance upon the line and would have required some five or six months for transit.

That great delay would have taken place in opening the Railway, if an embankment had been built is apparent, when it is considered that this work must necessarily have been the last earth work executed on this portion of the line, and all works to the East of it would have been "locked up" until it was completed.

It may be said, and truly said, that an embankment would have been more durable than the present structure—but a due consideration of all the circumstances now mentioned may well lead to the conclusion that this in itself though a great desideratum, was properly regarded as insufficient to induce a decision in favor of the earthwork.

The present Viaduct from the fact of its being built in a very substantial manner, of the best material both of wood and Iron, and put together in the most thorough style of workmanship ; and protected both from weather and fire by a roofing of asphalte and gravel will unquestionably last at least fifteen years.

The foundations which it will be seen have cost one quarter of the whole expense of construction are permanent, and can be used again for any number of renewals of the superstructure — while the interest of the money saved by the adoption of the Viaduct, will rebuild the perishable portion of it, once in every 12 years.

No. 2.—"Statement shewing the total expense of filling at Lawlor's Lake, the amount to be subdivided as follows :

- Expense of draining ;
- Do. of piling and brushing ;
- Do. of temporary bridging ;
- Do. of filling with earth and rock ;
- Do. of Superintendence and Inspectorship ; with names of the Superintendents and Inspectors."

The Chief Engineer reports as follows :

1. Cost of Draining,	£79 15 0
2. Cost of Piling and Brushing,	1711 18 6
3. Cost of Temporary Bridging,	591 9 3
4. Cost of Filling in Earth and Rock,	6666 10 0
5. Cost of Superintendence and Inspectorship,	40 0 0
	<u>£9089 12 9</u>

Including material deposited prior to construction of Pile Bridge.

NAMES OF SUPERINTENDENTS AND INSPECTORS.

William Hartshorn, General Inspector, Engaged at Lake say $\frac{1}{2}$ of time.

James H. Bartlett.

John Middleton, for a short time.

Statement shewing estimated amount saved by building temporary Bridge, Piling, and Brushing at Lawlor's Lake:

Total Estimated quantity required to fill Lake as per soundings at <i>lowest</i> Estimate,	133.200 Cubic Yards.
Quantity put into Lake up to time when Bridge was begun,	59.000 Cubic Yards.
Leaving a balance of,	<u>74.200 Cubic Yards.</u>
Add for Waste and Shrinkage at very <i>lowest</i> estimate 25 $\frac{1}{2}$ cent.,	18.550 "
Quantity required to finish Lake,	<u>92.750 "</u>
92.750 C. Yds. Earth,	@ 2s. £9275 0 0
Cost of Brushing and Piling,	£1711 18 6
" " Temporary Bridging,	591 9 3
29.000 C. Yds. Earth tipped from Bridge, @ 2s.	2900 0 0
7.000 " " Rock " " " @ 6s. 9d.	2367 10 0
3.500 " " Loose Rock,	@ 2s. 350 0 0
Shewing a saving by Bridge &c. of,	<u>£1354 2 3</u>
Exclusive of materials deposited prior to construction of Pile Bridge (as being common to both.)	

From the above accompanying statement it will be perceived that the adoption of the pile Bridge, has effected a direct saving in construction of £1354 2 3; in making my calculations on this point I have adopted as a basis, the very lowest amount of material, which would be requisite to complete the Embankment, without the auxiliaries of Brush and Pile Bridge; it is however very uncertain, if this amount would have been sufficient. In similar cases, it has been found, that by continuous tipping, from the ends of Embankments, the result has been a total displacement of all light vegetable deposit, the centre seat of Embankment founding its base on the first solid material and rising towards the foot of slopes, in the proportion of the diminishing weight of Embankment; to the resistive power of vegetable material to compression; such being the case, the amount required to complete the Embankment from end tipping, would be so much in excess of

the cost of the means adopted, as to leave a margin in favor of the latter, of £5080 0 0 instead of £1354 2 3.

The advantages derived from the adoption of a floor occupying the largest surface of resistance to horizontal displacement, must now be apparent, and this I should consider as furnishing a sufficient argument to prove the correctness of its use in the present instance; it is equally apparent that to secure a general settlement of any floor presenting a large surface and perfectly elastic (as in the case of the Brush Platform) some means must have been adopted to secure an equal load; to attain this end, I conceive no means more efficacious than one which would give the controlling power of loading any portion of the platform deemed expedient; hence the use of the pile Bridge.

In closing my remarks upon this subject, it may be stated that there are many cases extant, where a perseverance in a system of end tipping on loose vegetable matter without the aid of some means of preventing displacement has been a prolonged source of detention in attaining permanent way; and been attended with an excess of cost caused by an increased quantity of material required in embankment.

No. 3.—“Statement shewing the total expense of Ballasting Sections 1, 2, 3, 4, up to January 1st, 1859, with the names of the parties tendering, and copies of the tenders, with the names of the parties to whom the contracts were given, and copies of the contracts made, and a report from the Chief Engineer as to the time when, and the mode in which, those contracts were completed.”

Section 1, extends from the Mill bridge to Moose path, a distance of about 3 miles.

In September 1857, the Commissioners found the ballasting on this section completed, and that on Section 2 in progress and understood that it had been done by their predecessors under contract. On referring to the contract for section 2 entered into between the Province and D. P. Myers in Feb. 1857, it will be found that “all the work contained in Section Number 2” was covered by that contract, and the Commissioners understood, as there had been changes in the numbering of the sections, that all the ballasting was under this contract.

On further investigation however they found that on 12th May, 1857, the following advertisement appeared :

ROCK CUTTING.
Notice to Contractors.

SEALED TENDERS will be received at the Office of the Railway Commissioners on Monday, 18th May, till 3 o'clock, P. M., for Quarrying and loading on the Railroad Cars about 500 Yards of SLATE ROCK, along the Line of Railroad, near the Brick Yard. Particulars may be obtained at the Engineers' Office, Wiggins' Buildings.

W. H. SCOVIL,
Chairman of Railway Board.

Railway Commissioners' Office,
St. John, N. B., May 16, 1857.

There is no record in the Minute Book of the Commissioners of an order for this advertisement, of the receipt of tenders under it, or of any award made of the work specified.

In the office however they found tenders according to the following list, copies of which accompany this report.

TENDERS FOR ROCK AND EARTH.

	Rock.	Earth.
1 John McAfee,	8s. 3d.	5s. 0d.
2 John McWiggins,	4 6	
3 D. P. Myers,	3 0	11 2nd
4 Hugh McDavid,	2 9	1 0 1st
5 John H. Huestes,	4 0	
6 William Devan,	8 10	1 0
7 Samuel Mayse,	7 3	1 9
8 P. Hanley,	4 10½	
9 Dennis Hanley,	4 0	
10 John Curran,	4 6	
11 Alfred Harris,	7 6	
12 Francis Dolin,	13 0	3 0
13 Pat. McGrath,	5 0	1 0

No earth is mentioned in the advertisement, but in the specification, the removal of the earth on the top of the rock was asked to be tendered for.

By a contract found in the office dated 8th June, 1857, but not signed, a copy of which is herewith furnished, it would appear that the contract was awarded to D. P. Myers, but an additional *sixpence* was added, in terms of an offer made in his tender for unloading the cars, and the price of 1s. 6d. was inserted in the contract for all the earthwork between Harris & Allan's Foundry and the pile bridge on the Marsh.

On this contract, in addition to the 500 yds. of rock near the brick yard, 8337 yds. were excavated from the face of the

rock near Gilbert's Lane at the price in the contract 3s. 6d. per yard, and with this rock Section 1 was ballasted.

The price in the following estimate 9½d., was for spreading this broken stone as ballast.

The cost of excavation is charged to station grounds.

In the winter of 1857, at a time of much distress from want of employment, it was thought expedient to get a quantity of stone broken for ballast near Gilbert's lane and Lawlor's Lake.

Portions of Sections 2, 3, and 4 had been previously ballasted with broken stone by the Contractors on these sections, and the remainder was completed with the above broken stone in the course of last summer by Messrs. Myers & Brookfield under their contracts.

In the early part of last summer it was thought advisable for the purpose of finishing the ballasting and as a saving of wear to the rolling stock, to put on a dressing of gravel, and on 17th June tenders to furnish gravel were advertised for. Copies of the tenders received accompany this Report.

As gravel of a suitable quality could only be procured from the opposite shores of the Kennebecasis, it was necessary to provide a wharf on which to land it, and as such a wharf would otherwise be of benefit to the public and the Railway, advertisements for tenders for a wharf at Appleby's were at the same time issued.

This wharf was contracted for, to be completed on 1st August.

The tender of Thomas King at 2s. 5d. per yard for gravel, being the lowest was accepted, but as the wharf was not completed till September, Mr. King then declined going on with the work. As the season was so far advanced, it was not expected that the requisite quantity could be obtained, but M. Connolly, the next lowest tenderer that could then be found, agreed in conjunction with Mr. John Brookfield, contractor for tracklaying on the three sections, to go on with the work while the weather permitted. As the season proved favorable, nearly the whole quantity was obtained, and was distributed by Mr. Brookfield, at a price fixed by Engineers estimate. The cost of the whole is given in the following statement.

The following is the Chief Engineer's Report and statement of cost of ballasting. The total cost of ballasting sections 1, 2, 3 and 4 has been £6168 3 4: or at the rate of £642 12 5

per mile as will be seen by detailed statements accompanying this report; wherein all the quantities, at their respective prices, as done upon the different sections, by the several contractors are exhibited in detail.

This sum is £142 12 5 per mile more than the amount estimated in Table A, No. 8 in the appendix to the report of February 1859, wherein £500 is stated to be the *average* cost for ballasting the whole Road from St. John to Shediac; the cost per mile must of course vary very much in different localities.

Statement of total cost of ballasting Sections 1, 2, 3, & 4.

Items.	£	s	d
No. 1. John Brookfield, - - - -	1025	1	3
2. " " - - - -	253	16	0
3. " " - - - -	1385	15	0
4. Walker Rankin & Walker, - - - -	105	0	0
5. Dillon P. Myers, - - - -	1666	0	0
6. John Brookfield, - - - -	1732	11	1
	<u>£6168</u>	<u>3</u>	<u>4</u>

Details of Statement, shewing total cost of Ballasting from Mill Pond, St. John, to Kennebecasis Station, on the several Sections.

Section 1.—D. P. Myers, 8837 C. yds. Stone Ballast, @ 9½d.,.....	£349	14	0		
" " John Brookfield, 2538 C. yds., Broken Stone, @ 2s.,.....	253	16	0	603	10 0
Section 2.—Dillon P. Myers, Breaking Stone, 7226 C. yds. (in Winter of 1857,) @ 1s.,	361	6	6		
Do., Spreading 9555 C. yds., @ 2s.,	955	10	0	1316	16 6
Section 3.—Walker, Rankin & Walker, 1050 C. yds. Broken Stone, @ 2s.,.....	105	0	0	105	0 0
Section 4.—John Brookfield, 7455 C. yds Gravel & Stone, @ 2s. 9d.,.....	1025	1	3	1025	1 3
Sections 1, 2, 3, & 4.—John Brookfield, (finishing up works,) 6705 C. yds. Stone Ballast, (Spreading,) @ 2s.,.....	670	10	0		
8790 C. yds. Gravel, delivered at wharf, in cars, @ 3s. 1½d.,.....	1373	8	9		
8790 C. yds. Gravel, Spread, @ 1s.,	439	10	0		
1560 C. yds. Gravel, deposited and re-filled @ 1s.,.....	78	0	0		
2295 C. yds. Gravel, delivered from ships at St. John, and spread up- on Road @ 4s. 1½d.,.....	473	6	10		
Wagons repaired,.....	83	0	0	3117	15 7
				<u>£6168</u>	<u>3 4</u>

£642 12 5 per mile.

Statement of the mode in which these Contracts were completed.

ITEM No. 1.—This work was done by John Brookfield during the winter of 1857-8, and was chiefly composed of gravel procured from the shores of the Kennebecasis Bay, as well as broken stone excavated from the several rock cuttings, or gathered upon the adjoining Lands; the principal portion of these materials were conveyed by carts and deposited upon the earth “formation.”

ITEM No. 2.—This material was put on during the summer of 1857 by engine power and platform cars, and carried from Mill street, St. John to the three mile house.

ITEM No. 3.—This material was commenced to be put on the Road on, or about the 14th September 1858—the stone ballast was first laid on the bottom and sides by engine power and platform cars, and a dressing of gravel afterwards laid on by the same means.

ITEM No. 4.—This broken stone was carted on to its place in the winter of 1857 and 8 by Messrs. Walker Rankin & Walker and formed to receive the sleepers.

ITEM No. 5.—A portion of this material was broken in the winter of 1857 and 8. This material as well as some of a similar nature procured north of Lawlor’s Lake was afterwards moved by engine power and platform cars and distributed and spread over sections 2 and 3.

ITEM No. 6.—This gravel was procured on the opposite shore of the Kennebecasis Bay, and conveyed in Scows, towed by Tug Boats, and delivered at Appleby’s Wharf in the Railway Wagons, and afterwards conveyed in them to the several parts of the Railway, wherever required, the Contractors assuming all risk in executing the same.

In conclusion, I have to say that the ballasting of these Sections has been done in a very thorough manner, and in a similar mode to that adopted on the Austrian and Prussian Railways, with marked success, where the effects of frost had specially to be guarded against; (*vide* account of same in *American Railway Times* of Feb. 26, 1859.)

The system herein recommended and referred to, has been, to lay on a coating of broken stone one foot in thickness all over the surface of “formation” and under the ballasting. The results of the adoption of this system here has been as beneficial as on the Continent, proving the system of broken

stone under-ballast, superior to the adoption of gravel ballast only, and in this particular instance more economical.

It having been already stated in my Report of Feby. 1859, "that there was no good natural ballast upon this Division, recourse was had to the opposite shores of the Kennebecasis Bay, where very superior gravel was obtained (although in limited quantities, as already stated in my previous report) at a cost (including depositing and spreading) of 4s. 1½d. per Cubic yard by the lowest reliable tendering Contractor.

The total quantity of ballast used upon this portion of the road is equal to 48,000 cubic yards, which at 4s. 1½d. per yard would have amounted to £9900. The actual cost of ballasting this Division, as already stated, was £6168, leaving a direct saving of £3,732 by the mode adopted.

No. 4.—"Statement shewing the total expense of Excavating the summit at Garden Street, Saint John; the cost of constructing Bridges across Garden Street, and Stanley Street, and the cost of Approaches thereto, with copies of the Advertisement for Tenders, Copies of Tenders made, the names of Contractors, and Copies of the Contract, and a Report from the Chief Engineer as to the state of the works under those Contracts, how far carried out, and whether by the parties whose tenders were accepted, and with whom the Contracts were made, or by others to whom the Contracts or the right to the Contracts were assigned, and if not completed, what proportions in value the work done under the Contracts bears to the price to be paid when the Contracts will be completed."

Copies of the advertisement for Tenders, Copies of Tenders made, and copy of the Contract made accompany Report. The following is the Report of the Chief Engineer:

CONTRACT FOR EXCAVATING THE SUMMIT AT GARDEN STREET.

This Contract was let October 14, 1858 by tender to Mr. Lawrence Myers, upon the accompanying schedule of prices who (without having executed any portion of the Works) transferred it to Mr. Brookfield as the latter had other contracts in the neighbourhood with which this would interfere. This work is now being completed by Mr. Brookfield who gave the necessary security for the due performance of the work.

Original Schedule of Prices upon which Works were let, and upon which they are now being completed:

1st. Amount for pulling up Track and Stacking Materials from foot of Incline to Dorchester Street, including shovelling off and saving the Ballast,	85 0 0
2.	

2d. Price for Earth Excavation in the Incline hauled into Station Grounds or deposited in Road Crossings including spreading, trimming and levelling in embankments per Cubic yard,	@ 1s 2d.	
3d. Price for Rock Excavation in the Incline laid to spoil,	@ 3s. 6d.	
4th. " " " on Ledge at North side of Engine House, if required,	@ 3s.	
5th. " " Breaking Rock into Cubes not exceeding 3 inches square and afterwards hauling and spreading and levelling same from Dorchester Street to Gilbert's Island,	@ 2s.	
6th. Amount for finishing Bridge over Garden Street complete as per Plan and Specification,		£350 0 0

The Cost of these Works when completed as will be seen by the estimate below will be £9327 1 4.

"Approximate Estimate" of Work to be done to complete the Terminal Station at Saint John.

30,000 C. yds Excavation @ 1s. 2d.	£1750	0	0
10,000 " " "Rock do. @ 3s. 6d.	1750	0	0
10,000 " " "Ballast, @ 2s.	1000	0	0
2 Bridges,	900	0	0
5000 C. yds. Ditches, @ 1s. 2d.	296	13	0
Masonry,	1100	0	0
5400 Lin. yds. Trackl'yg. @ 9d.	202	10	0
4000 Sleepers, @ 2s. 3d.	450	0	0
Gravel Ballast,	600	0	0
Switches and Crossings,	300	0	0
Dorchester Street,	30	0	0
Fencing in Station Ground,	100	0	0
Contingencies, 10 per cent.,	847	18	4
		<u>9327</u>	<u>1 4</u>

The expense of the Bridges is here stated at nine hundred pounds; the approaches to them will not add any additional cost as the earth work of which they are composed is included in the cost of excavating the incline.

On the first of January 1859, these works were well advanced towards completion—the incline being nearly ready to receive the track.

The Bridge at Garden Street was opened to the public on the 11th December.

Timber for Stanley Street Bridge had been delivered and was being prepared. A large portion of the Rock work near the Engine House had been completed, and the principal portion of the Rock work to be excavated in forming the Incline had been done.

The earth excavated from the "Incline" had been used for the purpose of Grading and raising the Station Grounds near Gilbert's Lane. A portion of the Rock excavation had been used to ballast the car shed and the remainder stored away in readiness to Ballast the Station Grounds when the Grading has been finally completed.

The approaches to "Garden and Stanley Street" Bridges had been roughly completed; in brief, the works were so far advanced that it may safely be calculated that they will be completed by the time specified.

The value of the work done under Contract to the 1st Jan. 1859 was £3492 14 6 or upwards of one third finished.

No. 5.—Statement shewing the amount paid on account of the Station and other buildings at St. John up to the first of January, 1859, with copies of the advertisement for tenders and specifications, and of the tenders made, with copies of the contracts made, and a report from the Chief Engineer as to the state of those contracts on the 1st January, 1859.

Copies of advertisement for tenders and specifications, and of the tenders made with copies of the contracts made accompany this Report. The following certificate is added.

(Copy)

RAILWAY OFFICE, 13th Sept., 1858.

MEM.—Mr. Raymond on delivering his tender was asked if he was perfectly satisfied with the time allowed for making estimate for the railway buildings advertised for.

TIME AMPLE.

Raymond,
John J. Munroe,
John Wilson,
J. Brookfield,
Thos. Cotter,

James Quinton,
James Sullivan,
Caleb Wetmore,
W. Causey,
H. B. Crosby.

The above rough memorandum was taken at the time the Builders delivered their tenders. I informed the different parties that if they wished for an extension of the time it would be allowed, but they all declared to me that that they did not wish for more.

MATTHEW STEAD.

The following is the report of the Chief Engineer, showing the amount paid on Station and other buildings and the state of those contracts, on 1st Jan., 1859.

SAINT JOHN STATION BUILDINGS.

The several amounts paid on these Buildings up to the 1st of January, are as follows :

Passenger Station,	£1200	0	0
Engine House,	515	0	0
Car Shed,	1200	0	0

The following was the state of the above contracts on the 1st January, 1859.

THE PASSENGER STATION was far advanced towards completion, and nearly ready to receive the Trains, and in so forward a state, as to warrant its completion before the time stated in the contract.

THE FOUNDATIONS of the Engine House including the piles underneath were laid, and Brick, Stone and other Building Materials in large Quantities were delivered for the super-structure, ready to be used on the opening of the spring.

THE CAR SHED was nearly ready for use

Finally, it may be stated that the first and last of these Buildings have been in use for some time, although not yet formally taken off the Contractors' hands.

No. 6.—Statement shewing the actual cost of working the road from St. John to the Nine Mile Station from 1st January, 1858, to 1st January, 1859, such statement to be subdivided and appear under the following heads:—

- Cost of Maintenance ;
- Do. of Engine Drivers, Firemen, Cleaners, &c.,
- Do. of Wood and Water ;
- Do. of Oil and Waste ;
- Do. of Repairs to Engines ;
- Do. of Repairs to Cars ;
- Do. of Conductors, Brakemen, &c. ;
- Do. of Station Agents, Clerk, and Divisional Superintendents ;
- Do. of Tickets and other Printing ;
- Do. of Miscellaneous expenses, not above enumerated, and of what they consist.

The information required has been furnished in the Report Page 113 as far as practicable, to 31st Oct. the end of the financial year.

No 7.—“ A similar statement, similarly subdivided, for the same period, for the road from Moncton to Shediac.”

SEE REPORT p. 114.

No. 8.—“ The names of the different Employees severally on the above two divisions of the Road, classified under their several employments, and the amount of salary and allowances paid and allowed to each; and the number of days engaged or allowed to each when paid per day.”

LOUIS CARVELL, General Sup't., Salary £250; appointed 12th Sept., 1857.

SAMUEL M'KEAN, (A.) Div. Sup't., Salary, £150; appointed 23d April, 1858.

SAINT JOHN DIVISION.

Name.	Occupation.	Salary, or Remuneration.	Date of Appointment.	Left, Released, or Discharged, & when.		
Saint John Station.	Wm. King, 1.	Stat'n Master	7s. 6d. $\frac{1}{4}$ day.	1st Nov. '58		
	S. Watson, } John Doherty, 2.	Car repairer & Switchman	6s. "	6th July, '58		
		Stat'n Porter	6s. 3d. "	10th Feb. '59		
	O. Sullivan,	Wood sawy'r	5s. "	20th July, '57		
	D. Moriarity,	"	4s. 6d. "	" "		
	M. A. Cumming,	Stat'n Master	10s.	1st Nov. '58		
		John Kilfoil, } Mich. Shea,	Switchman & Wood sawy'r	4s. 6d. "	3d June, '58.	
	Wood sawy'r		4s. 6d. "	" "		
	Robt. Hannah,	Conductor	10s. "	20th July, '57	Left July 12, '58	
	Jas. H. Bartlett, 3	"	10s. "	" " '58		
Pass'gr. Trunk. Station.	Wm. Gonce,	Brakeman	7s. "	" " '57		
	O. S. Smith, 23.	Driver	10s. "	24th Dec. '56		
	C. W. Perkins,	Fireman	6s. 3d. "	1st July, '58		
	John Jenner,	Watchman	5s. "	19th Mar. '57		
	H. A. Whitney, 4.	Driver	10s. "	14th June '58		
	Jos. Moore, 5.	Fireman	6s. 3d. "	1st " "		
	Jas. Wright,	Watchman	5s. "	14th " "		
	J. McGinley, 6.	Brakeman	6s. 3d. "	19th Aug. '58		
	Jas. Barton, 7.	Driver	10s. "	7th Oct. "		
	John Green,	Fireman	6s. 3d. "	20th Sept. "		
Pettediac Ang'les.	Robt. Bustin,	Brakeman	6s. 3d. "	23d " "	Dis., Dec. 15, '58	
	R. James,	Watchman	5s. "	9th " "		
	Chas. Moore, 11.	Driver	10s. "	9th Feb. "	Dis., Oct. 21, '58	
	John Stewart, 12.	Fireman	6s. 3d. "	" " "	" July 3, '58	
	J. F. Patterson, 8.	Driver	10s. "	22d Oct. "		
	D. F. Nichols, 9.	Fireman	6s. 3d. "	" " "		
	St. John Kennecob's.	R. M. Stevens, 10.	Driver	10s. "	7th " "	
		Wm. Aiken,	Fireman	6s. 3d. "	9th Feb. "	

SHEDIAC AND MONCTON DIVISION.

	Name.	Occupation.	Salary or Remuneration.	Date of Appointment.	Left, Released, or Discharged, & when.
Shediac Station.	Robt. Atkinson, N. Cannon, 13.	Stat'n Master	12l. 10s. p mo.	20th Aug. '57	Dis. 1st Jan. '59
	James Hilson, }	Switchman	5s. 6d. p day	" " "	" 26th Dec. '58
		Wood sawy'r & Pumper.	5s. "	16th Apl. '58	" 23d " "
Point Duchene.	Alex'dr. Wright, services of self, man & horse, & rent of store, for the season.	Freight Ag't.	150l.	24th " "	Dis. 1st Jan. '59
Moncton Station.	Wm. Steadman, Jas. Roberston, }	Stat'n Master	10l. p mo.	19th Sep. '57	Dis. 1st Jan. '59
	J. Connell, 14. }	Freight Ag't.	10l. "	27th Apl. '58	" 26th Dec. '58
		Switchman, Woodman & Pumper.	5s. p day	14th Oct. '57	" " "
Passenger Train.	C. Gaynor, 15.	Watchman	7l. 5s. p mo.	21st " "	" " "
	W. B. Deacon 16	Conductor	10s. p day	21st May '58	" " "
	Joseph Warren	Brakeman	6s. 3d. "	18th Nov. "	" 22d " "
	M. Connolly,	"	6s. 3d. "	21st May "	" 2d June "
	Wm. Steadman,	"	6s. 3d. "	2d June "	" 12th " "
	Z. Lord, 17.	Form. & Driv.	20l. p mo.	6th Oct. '56	
	Allan Rand, 18.	Driver	10s. p day	14th June '58	
Locomotives and Machine Shop.	Chas. Cox, George Smith, 19	Fireman,	6s. 3d. "	20th May '57	Left 5th Aug. '58
	"	"	6s. 3d. "	2d July '58	
	John Fogarty,	Carpenter & Car repairer	7s. 6d. "	1st Sep. '57	
	Pat. Mahon.	Black Smith	8s. "	1st June '58	
	Lott Connell,	Watchman	7l. 5s. p mo.	11th Dec. '57	" 22d Sep. '58
	J. Clarke, jr., 20	"	7l. 5s. "	9th Oct. '58	
	Nelson Rand,	Helper, &c.	3s. 6d. p day	19th Apl. '58	" 23d Dec. "
	Thos. Morehead,	Blacksmith	7s. 6d. "	17th Dec. '57	" 28th May "
	J. Pennington.	"	8s. 6d. "	29th Mar. '58	" 16th Apl. "
	Track.	W. Stevens, 21	Trackmaster	17s. 6d. "	1st Apl. '58	" 13th Nov. "
Four		Sec'n Formn.	6s. 6d. "	" " "	" 26th Dec. "
Twelve (22)		Trackmen	4s. 6d. "	" " "	" " " "

Note 1. William King was Station Master at Kennebecasis from 20th July to 30th Oct., 1858.

2. John Doherty was Brakeman on Passenger Train from 5th June to 1st Nov., 1858, and Car Cleaner from that time until 10th February, 1859.

3. James H. Bartlett was Conductor on the Shediac and Moncton Division from 24th Oct., 1857, to 1st June., 1858, and from 13th April to 21st May, 1858, and Station Master at Kennebecasis from 22nd May to 20th July, 1858.

4. Henry A. Whitney was driver of the "Sampson" on the Shediac and Moncton Division from 1st July to 15th Dec., 1857, and again from 19th April to 10th June, 1858.

5. Joseph Moore was previously Switchman at St. John 22 days.

6. J. McGinlay is now assisting to Repair Engines.

7. James Barton was Driver of "St. John" from 5th April to 7th Oct., 1858.

8. John F. Patterson was Fireman on this Engine from 3rd July to 21st Oct., 1858.

9. David F. Nichols was Brakeman on the Passenger Train on the Shediac and Moncton Division from 21st Oct., 1857, to 1st January, 1858, Fireman on the "Sampson" from that time until 19th April, 1858, and Brakeman again until 8th June last, and subsequently Fireman on the "Sampson" until 2nd July, when he left.

10. Robert M. Stevens was Fireman on the Passenger Train from 11th Jan., 1857, to 9th June, 1858, and Driver on the Night Engine on Section 5 from 1st July to 7th Oct., 1858.

11. Chas. Moore was superseded by J. F. Patterson 21st Oct., 1858.

12. John Stewart was superseded by J. F. Patterson 3rd July, 1858.

13. Nelson Cannon was not employed from 1st Jan. to 19th April, 1858, and since 26th Dec., 1858, has been employed sawing wood at Shediac, @ 4s. 6d. per day.

14 and 15. James Connell and Christopher Gaynor were not employed from 1st Jan. to 19th April, 1858 by the day, and since 26th Dec. last have been employed sawing wood at Moncton per cord.

16. Wm. B. Deacon was Brakeman on Passenger Train from 26th April to 21st May, 1858.

17. Z. Lord's wages was £15 per month until Jan., 1858.

18. Allan Rand was Fireman @ 6s. 3d. per day from 26th Aug., 1857, to 14th June, 1858, and since that time at the same rate, when his services as Driver were not needed. His wages during the winter is 6s. 3d per day.

19. George Smith was Watchman 8 days and Brakeman 32 $\frac{1}{2}$ days, since appointed Fireman.

20. John Clark, Jr. was Brakeman on the Passenger Train from 1st June to 9th Oct., 1858.

21. The Trackmaster asked to be released on the 12th Nov., since which time no person in that capacity has been employed.

22. Eight Trackmen were discharged 23d Nov., from which time the four Section Foremen received 6d. per day each, additional, until discharged with the four remaining Trackmen, on the 26th Dec., 1858.

23. O. S. Smith was respectively Driver of the "St. John," "Peticodiac," and "Anagance," since the date of appointment here given.

A. Samuel McKean since 1st Dec. 1858, has been also engaged inspecting Locomotives and Cars, now in course of construction, and inspecting Cordwood, received per Contracts.

B. "Anagance," is the present Passenger Engine on the St. John Division.

C. "Peticodiac" was the Passenger Engine until the present Driver took charge of her, since which time she has been for the most part Ballasting.

D. "Loostauk" since put upon the line has for the greatest proportion of the time been Ballasting.

E. "Kennebecasis" has been the Construction Engine on Section 5, Walker & Co.

F. "St. John" has been a Construction Engine since Dec., 1857, at first on Section 2, and since July, 1858, on Section 5.

No. 9.—“Statement shewing the gross receipts on the foregoing two divisions of the Railway, severally, distinguishing between amounts received for freight and for passengers; what amounts, if any were received by Conductors or collectors of passage money or freight, and not paid over; the names of such Conductors, and what steps were taken by the Commissioners to recover or secure the public monies when such defaults, if any, were discovered.”

Statement shewing the Receipts as above will be found at pages 108, 111, and 122 of the Report.

In July last suspicion arose that one of the Conductors was in the habit of retaining small portions of the money he collected between Stations, and means were at once taken to ascertain the facts. Special Reports of the whole circumstances were made to the Government dated 12th and 22nd July, and an order was received for his dismissal. On enquiry the Commissioners have not been able to ascertain that on any Railway any plan has been found out by which an efficient check is obtained over Conductors for monies collected between Ticket Stations.

No. 10.—“Statement of all Contracts entered into between the 1st February, 1858, and the 1st February, 1859, for the construction or delivery of Locomotive Engines, Snow Ploughs, Passenger Cars, Baggage and Second Class Cars, Platform and Box Freight Cars, and Hand Cars, with the names of Contractors for each description of work, and copies of the Contracts, with a distinct statement whether such Contracts, and if any, which of them were made by private bargain, and which were publicly advertised for and taken by tender; and in the latter case, copies of the advertisements calling for tenders, and copies of specifications and of tenders received, and a distinct statement, when, where, and how long such advertisements were published.”

<i>Nature of Work.</i>	<i>Names of Contractors.</i>
5 Platform Cars and 2 second Class Passenger Cars, - - -	J. Hughes,
4 First Class Passenger Cars, -	J. E. Sayre,
2 Second Class Passenger Cars, -	Charles Nevins,
30 Platform Cars,)	
6 Box Cars,)	
4 Horse Cars,) - - -	F. James,
6 Cattle Cars,)	
1 Snow Plough,)	
1 Hand Car, - - - - -	F. James,
2 Locomotives, - - - - -	Fleming & Humbert.

Copies of Contracts for above, also copies of advertisements, copies of Specifications and of Tenders, with a statement

shewing when, where and how long such advertisements were published, accompany this Report.

The first four of the above Contracts were publicly advertised for and taken by tender.

The Hand Car was made by F. James by private bargain at U. S. price.

The Locomotives were contracted for by private bargain at U. S. prices without duty.

No. "11.—Statement showing the total cost of the Station ground and buildings at the Nine Mile Station, with copies of the contracts for the same, with the cost of the roads made by the Commissioners leading thereto, the quantity of land taken for such Road and the Station, the price paid for the same, and to whom, the cost of fencing per rod, and number of rods fenced on such roads and in rear of such Station, and to whom paid; the costs of alterations and repairs or extra work, if any, put upon the said station buildings since the same were handed over by the Contractor, and a Report from the Chief Engineer clearly shewing the present state of such buildings."

The Contract for Passenger Stations was taken by Alfred Harris 3d October, 1857, amounting to.....	£515	5	0
For Tank-house and Woodshed to Alfred Harris April 3, 1858, amt'g	476	16	5
	<hr/>		
	£1779	8	5

AMOUNTS PAID.

Alfred Harris as per Contract for Passenger Station, Woodshed and Tank house,.....	992	1	5
do. do. for Extra Work,.....	263	18	8
Extra work on do. since taken off Contractors hands,.....	25	9	10
John Brookfield for making roads &c.,.....	309	19	0
LeBaron Drury, for Fencing,.....	82	10	0
J. Scribner, for Land,.....	25	0	0
LeBaron Drury, for Land,.....	80	9	4
	<hr/>		
	£1779	8	3

ITEMS IN DETAIL OF ABOVE STATEMENT.

Alfred Harris, Contract for Stations,.....	£515	5	0	
“ “ Extra work on ditto,.....	130	4	11	
“ “ do. since taken off Contractors hands,....	25	9	10	£670 19 9
“ “ Contract for Woodshed and Tank House,.....	476	16	5	
“ “ Extra work on do.....	133	13	9	610 10 2
John Brookfield, making Roads,.....				
2047 C. Yds. Earth Excavated @ 1s. 5d.	144	19	0	
44 “ “ Rock Excavated, @ 6s.	13	4	0	
92 “ “ Masonry,..... @ 33s.	151	16	0	309 19 0
LeBaron Drury, 165 Rods Fencing,..... @ 10s.				82 10 0
do. 1.09 Acres Land.....	80	9	4	
J. Scribner, 1.49 Acres do.....	25	0	0	105 9 4
	<hr/>			£1779 8 3

The Extra work upon the Station Buildings, Woodshed and Tank House consists of all Works executed in addition to that specified in the designs including extras performed in fitting up Ticket Office, Magistrates Office and finishing the Building for other accommodation.

The Roads were made by J. Brookfield during the time he was executing Section No. 4, and under his Contract.

The present state of the Station house is not very satisfactory. The house has sunk a little in the centre from not having been properly underpinned, the verandah leaks, and the chimney had to be supported. When the proper season arrives a small outlay will remedy these evils.

No. 12.—“Copies of the Contracts for constructing sections 5, 6, and 7; the date of letting the same, and a report from the Chief Engineer as to when the same will be completed; also, a statement of expences incurred for extra work on said three sections, 5, 6, and 7, arising from the contemplated opening of the Railway from St. John to Hampton on the 1st January, 1859.”

Copies of these Contracts accompany this Report.

Sections 5 and 6 were let 30th June, 1857. Section 7 15th December, 1857. A Report from the Chief Engineer as to the time when the same will probably be completed will be found at Page 42 of the general Report.

The following letters will show the agreements made as to the expense that would have been incurred if the line had been open to Hampton on 1st January, 1859.

Gentlemen,

Nov. 16, 1858.

We beg to state that for opening the Road to Groom's Cove, we shall claim no extra payment beyond the actual work done previous to opening, and shall make no extra charge for any hindrance from running the trains.

We are Gentlemen,

To the

Commissioners of Railways,

}

Your ob'dt. servants,

WALKER & Co.

R. JARDINE, Esq.,

St. John, 16th Nov. 1858.

SIR,—I am willing to open the Railway from commencement of Section No. 7, Hampton district to the Depot now being erected opposite Hampton Village for what it will cost me extra to contract price, not to exceed £500—by the 1st Jan., 1859.

I am Sir,

your obd't. servant,

JOHN BLACKIE.

The only extra work done under the above agreements was some "gulleting," tracklaying, and the purchase of timber for temporary bridges, most of which will be otherwise available. The expense has not yet been ascertained.

As Section 7 from Groom's Cove to Hampton was not required by Contract to be completed before 1st Nov., 1859, the same extra expense would have been needed to open it on 1st June as on 1st January.

No. 13.—"A statement of the amount claimed by the Contractors over and above their Contracts for extra work on Sections 5, 6, and 7, (irrespective of the particular extra work arising out of the contemplated opening on the 1st January, 1859); the sums paid or agreed to be allowed to the Contractors in settlement of such claims, and the Chief Engineer's reasons why, after making Contracts for the construction of said Sections, such additional amounts should become chargeable to the cost of constructing them, and why those Sections were not completed at the time specified in the Contracts."

Sections 5 and 6, and Hammond River Bridge have been the source of more anxiety and difficulty to the Commissioners than any other portion of the works under their charge.

It will be observed from the introduction to this Report that these works were let in June, 1857, and with the exception of the changed route from Gondola Point to Lakefield, on a merely preliminary survey, that the site of Hammond River Bridge had not been surveyed or decided on, and that the Contracts had not been signed.

The difficulties with regard to Sections 5 and 6, were the first things the Commissioners had to encounter as will be seen by the following letters.

Gentlemen,

(Copy.)

Saint John, July 7, 1857.

As you informed us that in case of the adoption of the Lakefield route, our tenders for Sections 5 and 6 would be accepted, and the Government having now decided on adopting that line, we beg to intimate that we are prepared to complete our contract.

We also beg to state that we are prepared at once to commence the works, that the delay that has already occurred has been a serious injury, and that any further postponement would be highly detrimental both to us, and to the prospect of an early completion of the works.

We are, gentlemen,

Your ob'dt. servants,

WALKER & Co.

To the Chairman and
Commissioners of Railways. }

Gentlemen,

St. John, Aug. 3d., 1857.

As it was stipulated in the Specification for Section No. 5 that you should furnish an Engine and 40 four-yard ballast cars, and as we are informed that the Engine cannot be here before the 15th of September, and that the Cars are not even ordered, it would be impossible (such being the case) to complete the work in the time specified.

There are a large number of 2 yard wagons idle at Moncton, and if you really wish our Contract fulfilled, and are not prepared to furnish the four yard cars, we might manage to use them for a time, taking two as equal to one ballast car, though they are in every respect greatly inferior.

The Shediac line is to be opened on the 10th instant, and our estimate for July will be in your hands before this time. We would request the payment of the 15 per cent retained previous to the opening. This would still leave in your hands the work done since estimate and the *still* unsettled claim for the Coffe Dam.

We are, Gentlemen,

Your ob'dt. servants,

WALKER & Co.

To the Chairman of
Commissioners of Railways. }

There is no record in the Commissioners books of the receipt of this letter or of any order made upon it.

Gentlemen,

Saint John, Aug. 25, 1857.

In signing our Contracts for Sections 5 and 6, we would draw your attention to the fact that the plant which was to have been furnished to carry out these works is not yet delivered, and that we have thus lost the best portion of this year. As there is no prospect of our receiving the wagons &c. for some time to come, it will be almost if not altogether impossible to complete within the time specified. On our part we shall use every endeavour to deliver the works complete by November next year, but we fear that even if we are able to finish the track sufficiently for traffic, it will still be deficient in many minor particulars.

We are, gentlemen,

Yours ob'dt. servants,

WALKER & Co.

To the
Commissioners of Railways, }

As the characteristics of these Sections and the non-fulfillment on the part of the Commissioners of an agreement made by their predecessors to furnish rolling stock for the prosecu-

tion of the work, have been explained at length in the Chief Engineers Report, page 36, the Commissioners need only now refer to it.

The peculiar features of the work to be done on these two Sections, required that a particular order should be observed, any interference with which would occasion delay and damage.

This interference unfortunately took place and the Commissioners were forced to meet the claims for damages arising from this and to dispose of them to the best of their judgment.

The revision of the location which was rendered necessary in consequence of only a preliminary survey having been made before the work was let, and the consequent changes in alignment, grade, and structure, gave rise to many claims for damages and extras, which had to be considered and in some cases allowed.

In addition to this a claim was made and had to be allowed, in consequence of the wagons furnished proving, as they were first constructed, having been made on a pattern for ballast wagons, quite unfit for the heavy material on Section 5.

As the chief hindrances to the successful prosecution of this work were fairly traceable to non-fulfillment of Contract on the part of the Commissioners, they would not have been justified in taking the work from the Contractors, and as the Contracts had been taken at a price so low as to admit of the work being prosecuted successfully only under the most favorable circumstances, the Commissioners had no choice but to meet the difficulties and make such allowances as would adequately represent the damages sustained.

In arranging these claims the Commissioners obtained much assistance from Wm. Parker, Esq., the Consulting Engineer employed by the Government to advise with them in such matters, and the Government also, as you are aware Sir, was consulted at every step taken, and on one occasion a Committee of the Government was occupied nearly a week in investigating the merits of the case.

The following is the Engineers Report :

The sums claimed by the Messrs. Walker & Co. above the amount of their Contract for Sections 5 and 6 consist of the following items, viz :

1st. Damages arising from the late delivery of the Locomotive Engine and Cars, as well as the inadequacy of the latter up to Nov. 15th was,	- - - -	£3586	9	5
2nd. Extras on Section 5,	- - - -	3275	6	7
3rd. do. on Section 6,	- - - -	1127	4	3
Total amount Damages and Extras,	- - - -	£7989	0	3
Sums actually allowed on above,	- - - -	7402	10	10

The reasons why these sums have become chargeable to these Sections, has been already explained in the General Report upon this Division, to which I refer and may be recapitulated as follows,

Firstly, the late delivery of the Engine and Cars as stated on page 36 of the Report.

Secondly, and more especially to an insufficiency of the Engineering staff at the time these works were let, to complete the surveys in a sufficiently elaborate manner for Contracts let on "gross" or "bulk sums;" though *amply sufficient* if they had been let (as they had hitherto been) upon a Schedule of fixed prices; which latter is the mode universally adopted and admitted to be the best and simplest manner of letting similar works in the United States of America.

This may be partly accounted for by the fact that no Engineering work of any great magnitude was ever completed, wherein the quantities of final estimate have corresponded with those mentioned at the time of letting; still to enable Commissioners or Directors to ascertain more easily the comparative amounts of tenders a "bulk sum" is generally assumed.

This latter mode was that, which even almost up to the time of letting, there was every reason to expect would have been the one adopted.

The survey was mainly deficient in information with reference to the Bridge Work, the individual sites of the Bridges had not been particularly surveyed, so that plans could be exactly adapted to them; moreover there was not a sufficient staff of draughtsmen to prepare these plans in sufficient detail for a Contract of this kind, and as a natural consequence changes to a certain extent had to be made on almost every one of these structures. As an instance of this it may be stated that four of the minor Bridges were let upon one draw-

ing, that happened to be something like what was required, and this had been prepared for an entirely different Section. For further information on this subject *vide* Report—page 38.

It may not be out of place to observe here that a competent draughtsman must be a person specially qualified for the vocation, and the services of such persons are, from the nature of their position, very difficult to be obtained at short notice; as an instance it may be observed that after permission had been obtained from the present Commissioners to get such a person, a correspondence was maintained for several months with Charles Beard, Esq., late draughtsman of the Great Western Railway of Canada, who did not accept the offered situation until seven months after the date of the letting above referred to.

By the terms of the Contract any addition to the original drawings became an extra to be paid for upon the Schedule of fixed prices. It may be asked “why was not more time given to perfect the surveys and prepare these plans?” The answer is, that the works had been advertised before it was known that the system of letting that had previously been adopted would be altered, and as Contractors from a distance were daily arriving, the letting could not be deferred for a sufficient length of time to be of any service without giving much dissatisfaction to these parties.

While referring to extras, as much misapprehension appears to exist, it may be as well to observe that if correct information with regard to quantities had been obtained at the time of letting; the whole cost of the works would not have been any less than the amount now charged, including extras.

Assuming that these Bridges when completed will be just what they should be—the extra quantities estimated according to the Schedule of prices on which the Contractors’ tender is based—and that there has been no misappropriation of labour or material after commencement of construction, it will be evident that any addition made subsequent to entry into Contract will appear in the form of extra quantities, and will be paid for according to Schedule.

As an example let us assume one of the above Bridges as a case in point.

The original estimate of this Bridge amounted to 280 cubic yards of Masonry, the Contractors’ bulk sum of tender based on this quantity was £450; the increased quantities rendered

imperatively necessary amounted to 560 cubic yards, and the price consequently paid in accordance with Schedule of prices £900, or half Contract and half extra.

Now from this it must be evident that, as the quantity *actually required* was always the same, there can be no more increased cost of work than if the total amount of material had been entered in tender at first and carried out in accordance with the ruling price; in this case the amount would still have been £900.

With regard to the causes "why these Sections were not completed at the time specified in the Contracts" will partly appear from what has been already stated, and are attributable as follows, viz.:

The want of the aforesaid Engine and Cars, as well as to the fact that these Contracts were taken *beneath their value* (the Contractors' bulk sum being some £11,000 below the Engineer's estimate) which system of undervaluation whenever adopted will generally be found a serious cause of loss and detention, precluding the possibility of working at any time save the most favorable periods of the year.

No. 14.—"Statement shewing the names of the Contractors for building the Railway Bridge across Hammond River, the total amount of such Contracts, the sums paid on account of Contract or extra work up to 1st of January, 1859, with a Report from the Chief Engineer whether there were any and what departures from the original plan of construction after the Contracts were made; what additional sums were demanded by the Contractors in consequence of such departures or alterations, what sums have been allowed; the reasons why the Bridge was not completed at the time specified in the Contract, and what will be its entire cost when completed, and when it will be completed."

The remarks made as to Sections 5 and 6 apply to a considerable extent to Hammond River Bridge.

As three fourths of the value of this work (exclusive of the iron superstructure) was under the level of the surface of the ground, it followed that the nature of the foundations and the cost would depend in a great degree upon the site chosen.

It has been shown that when the Contract was made the site was not determined, and that therefore the description and quantity of work must have been to a considerable extent assumed.

It will be seen by the Chief Engineer's Report that the cost will exceed the estimate, and that considerable additional work will have to be paid for.

The attention of Mr. Parker was called especially to this matter, and all the steps taken and extras allowed, were in accordance with his advice.

The Chief Engineer reports :

“In reply to the above questions it may be stated,
That the names of the Contractors are O. Small, and H.
B. Crosby.

That the total amount of Contract for Foundations and
Masonry, but not including the Iron Superstructure
is, - - - - - £11,950 0 0

That the sums paid on Contract and extra Bills are,
£10,789 10 4

[A portion of the sum paid Messrs. Small & Crosby being £513 18s. 8d. was not on account of Work relating to the Bridge Contract, but for Material deposited in Embankment, and consequently chargeable as such.]

That by reference to the Report of 1859, page 40, it will be perceived that the alterations together with the reasons which caused their adoption are there enumerated and are,

Firstly, An additional height of 3 feet to level of Rail, deemed expedient after more reliable information had been procured as to the extreme height of freshets.

Secondly, An increased length of Piles used in the Foundations.

In relation to the latter it may be as well to remark that this addition to length, and not to number of Piles or to the plan of foundation is incidental to any such structure, even if let in quantities estimated on the basis of minute surveys, it being practically impossible to ascertain (prior to execution of Works) to what depth piles should be driven to secure proper stability, as a still further exemplification of this fact it may be stated that no general uniform length of Piles can be adopted even in the same foundations, the lengths varying materially, as was the case in this instance.

That the sum allowed to the Contractors on Extra Bills
was, - - - - - £1375 7 4

That an answer to the question, “Why the Contract was not completed in the time specified” will be found in Report, page 39.

That the entire cost of Bridge will be, £20,882 0 0
c3.

This includes the purchase and erection of the best Fairbairn's Iron Girders and Superstructure.

That the time when the Bridge will be completed will be found in Report (Page 42.)

No. 15.—“Statement shewing the names of the Contractors for Sections 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16; the date of entering into such Contracts, the times severally specified for their completion, the total amount payable under each Contract, as per tender; and the amounts severally paid on account up to 1st January, 1859, and a statement of extra work, if any, claimed or allowed on any of these Sections.”

The information required in the above article will be found in table A, No. 9, Engineer's Report, except the time specified for completion, which is as follows:

Section 7,	} Nov. 1, 1859.
“ 8,	
“ 9.	

And Sections 10 to 16, June 1, 1860.

The following is a statement of extra work allowed and paid on these Sections up to 1st January, 1859.

SEC. 7.—Extra bill for Feb.,	- -	£5	7	6
“ “ “ May,	- -	11	19	3
“ “ “ Nov.,	- -	5	0	0
“ “ “ Dec.,	- -	404	14	6
		<u>£427</u>	<u>1</u>	<u>3</u>

SEC. 8.—Extra bill, - - - -	£4	10	0
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SEC. 9.—Extra bill, - - - -	£71	2	9
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On Sections 10, 11, 12, 13, 14, 15, and 16 no extras were claimed or paid up to 1st January, 1859.

No. 16.—“Statement shewing the total cost of the land for the Station at Hampton, the quantity, the sum paid, and to whom; the total costs of the buildings at such station, with names of the Contractors, date of the Contracts, date when to be completed, the amount to be paid on completion, and the amount paid on account to 1st January, 1859, and statement of extra work, if any claimed or allowed.”

TOTAL COST OF LAND FOR STATION.

Joseph Sederquist, 3½ acres,	- - - -	£25	0	0
C. A. Everett, 3¼ acres,	- - - -	25	0	0
C. A. Everett, for Road and Site for Freight House,	- - - -	25	0	0
		<u>£75</u>	<u>0</u>	<u>0</u>

Nature of Buildings.	Names of Contractors.	Date of Contct.	When comp'td.	Paid on 1st Jan.	Amount of Contract.	Extra Work.
Passenger Sta., Woodshed, & Tank house, Police Barracks,	Johnston & Blackie,	1858.				
		June 21,	1st Nov.	£926 10 0	£850 0 0	£76 10 0
	Johnston & Blackie,	Sept. 3,	3rd Oct.		165 0 0	35 0 0
Freight House,	Wm. Anderson,	1859.				
		Feb. 5,	1st June		325 10 0	
Total amount to be paid on completion,						£1452 0 0

The above extra work was for additional Masonry in Foundation, and for cells to Police Barracks.

No. 17.—Statement shewing the amount paid for the maintenance of way between Shediac and Moncton, the sum so paid according to Contract or otherwise, and the amount for extra work, repairs or construction between 1st January, 1858, and 1st January, 1859.

Amount expended under Wm. Stevens, Track-

Master, for Maintenance of way, - - - - -	£ 327 13 9
Amount paid Walker & Co. for Ballasting, - - - - -	1455 17 2
Amount paid Fisher for Asphalting Bridges, - - - - -	235 19 4
Amount expended by Wm. Stevens, Track Master, in finishing construction, - - - - -	1812 1 4
	£3831 11 7

No. 18.—“Statement shewing the number and nature of accidents to individuals on the whole line of Railway, specifying whether the parties were in the employ of the Contractors or Commissioners, and whether such accidents resulted in loss of life or personal injury, or from the defaults of the parties injured or parties connected with the Railway, and whether, if any, what allowances have been made to individuals for injuries or losses sustained.”

The Superintendent reports: “I am happy to say that since the line on either Division has been opened for traffic, injury to *passengers* has been unknown, and in other respects small indeed. A detailed statement of all accidents to servants of the Railway or persons in the employment of the Contractors, so far as they have come to my knowledge, will be found in my Report of 1st December last.”

The only allowance made to individuals for injuries or losses sustained, was a sum of Ten Pounds paid to Rev. G. Schofield on 18th Jan., 1858, for injuries sustained by his son in consequence of a fence falling upon him.

With regard to accidents to individuals in the employ of the Contractors, the Commissioners have to observe that from the commencement of this Railway no attempt has been made to regulate or inquire into the construction of the work as between the Contractors and the men employed by them.

The first Contracts, under which most of the accidents have happened, drawn up under the supervision of the then Attorney General of the Province, contain no clause providing for such interference or enquiry, and the Commissioners are not advised that they have any power under the law to make such inquiries. The only stipulation in the Contracts as to damages is as follows :

“The blasting of all rocks during the progress of the work shall be entirely at the risk of the Contractors, and all damages occasioned thereby, or any injury done by him or his workmen to the crops, fences, buildings, or other property of the adjoining landowners or occupants, in any way whatever, shall be paid for by him, and the Government saved wholly harmless therefrom.”

It appears to the Commissioners that as the law at present stands the duty of protecting the subjects and bringing to justice those who cause injury to them, devolves upon Coroners, Grand Juries and Local Magistrates, and from them no doubt the desired information can be obtained.

No. 19.—“Statement shewing the number and nature of accidents to Engines, Snow Ploughs, and Cars, on the two Sections of Railway in operation; the times and causes of such accidents, and the amount of expenses incurred in repairs, and of loss sustained, if any, by actual destruction.”

ST. JOHN DIVISION.

July 14, 1858; A Freight Car injured slightly in consequence of the Trackmen putting a Frog therein without informing the proper parties of their intention to do so. The Engine starting to take up the Train while this was being done, caused the injury. Expense incurred, 25s.

Sept. 14, 1858, Engine “Loostauk,” with the Evening down Train broke rocker shaft casting, caused by a flaw in the iron. No expense to Railway.

Oct. 16, 1858, Coupling Chains of Earth wagons, in use of John Brookfield, Contractor, while on the summit of the grade at Garden Street, broke, causing the Cars to run down the incline over the Mill Pond and into Mill Street, no other damage done and no expense to Railway.

Oct. 20, 1858, a Platform Car loaded with lumber, in the use of John Brookfield, Contractor, standing on the Siding at Appleby’s wharf, went down the incline and over the end

of the temporary wharf, caused by the break chain parting; no expense to Railway.

Oct. 21, 1858, Locomotive "Loostauk," in the service of John Brookfield, Contractor, on the night of this day when going after his men ran into a Hand Car in use of the Trackmen, breaking the same; expense to Railway refitting £17.

Oct. 23, 1858, First Class Car, No. 4, with down evening Train, when passing the Moose Path Station came into contact with a Wooden Pump placed there for the use of the Ballast Engines, slightly injuring the panel of the Car. This accident was caused by the Contractor's Foreman, who was finishing the slopes of the stream, removing the scaffolding which supported the pump, and neglecting to place a shore in such a manner as to allow the Engine to clear it, was tripped, causing the pump to fall against the Car as it passed; expense to Railway 10s. 9d.

Nov. 1, 1858, Two Cars with Train of the Engine "Loostauk," in the service of John Brookfield, Contractor, was thrown from the track near Lawlor's Lake, while passing up on the evening of this day to the Kennebecasis Station for the labourers, caused by running into a small house placed upon the track, by Joseph Thompson the Foreman of the Section, without orders; expense to Railway for repairs of same, £17 13s. 7d.

Nov. 8, 1858, Engine "Anagance" ran truck wheels off track at Turn Table, Gilbert's Lane, in consequence of Contractor's man shifting the cog or stop without the Trackmaster's knowledge; no injury done, and no expense to Railway.

Nov. 15, 1858, First Class Car No. 5, with the up morning train was found to be on fire from the stove pipe, and in the endeavours to extinguish the same rendered the Stove useless; Cost to Railway for Stove, - - - - - £3 5 0
Repairs, - - - - - 2 4 10
£5 9 10

SHEDIAC AND MONCTON DIVISION.

May, 18, 1858, As the Ballast Engine "Hercules" was returning from Moncton this day, the Sparker of the Bonnett was blown off breaking the glass of the Head Light, cause, wind blowing a gale; expense in repairing say 15s.

June 29, 1858, Two steps on one side of the first and second class cars torn off on the passage of the evening train from Moncton this day near Dorchester Road. Cause, track foreman left Hand Car too near the line, with which the cars in passing came into contact, causing the injury; expense to Railway in repairing, say 20s.

Sept. 13, 1858, Engine "Scadouc" from Point du Chene as she neared the Station ran into a Box Car left upon the Main Track, causing a slight injury to the same. Expense to Railway probably 3s. 9d.

Oct. 20, 1858, Second Class Car injured slightly by coming into contact with some barrels of coals left improperly near the track on the wharf at Point du Chene. Expense in repairing about 2s. 6d.

Oct. 23, 1858, Battens of First Class Car defaced considerably at Point du Chene, by coming into contact with the gangway of the Platform which had been left down. Expense probably 12s. 6d.

No. 20.—"An Abstract or Schedule shewing the number and nature of all Contracts entered into for Railway purposes by the Commissioners, or by their authority, from 1st January, 1858, to 1st January, 1859; such Schedule briefly to give the following information:—

- The nature of the work to be done;
- When to be done;
- Date of Contract and amount;
- Contractor's name;
- Sureties' name;
- Date of advertising;
- Date of letting;
- Amount specified in tender (if not advertised and tendered for, so to be stated;)
- Time specified for completion;
- Date of actual completion;
- Total amount paid on each Contract."

The Abstract required accompanies this Report.

No. 21.—"Statement shewing the names and position of each person employed upon the Engineering Staff of the Railway works on the 1st January, and 1st June, 1858, and the 1st January, 1859, with the nature of each person's duty, and the rate of salary paid to each at the respective periods named."

A Statement giving full information regarding the above, accompanies this Report.

No. 22.—“Statement of the several amounts paid to the Chief Engineer from the date of his appointment to 1st January, 1859, distinguishing between sums paid on account of salary, and sums allowed for travelling and extra expenses.

To what Date.	Time Employed.	Salary.	Travelling Expenses.
1st April, 1857,	10 Months 20 Days,	£430 11 1	£172 18 4
14th Aug. “	4 “ 14 “	83 6 8	17 0 0
1st Jan'y. 1859,	16 “ 17 “	583 6 8	157 3 0
		£1097 4 5	£347 1 5

Due Mr. Light at the latter date on Acct. Salary, £249 17 9

No. 23.—“Statement shewing the date and terms of the engagement of Mr. Parker, the Consulting Engineer; the time occupied by him in the inspection of the works in this Province, and the several amounts paid him for services and expenses.

To what Date.	No. of Days Employed.	Salary Paid.	Expenses.
1st June, 1858,	23 Days.	£115 0 0	£12 18 7
30th “ “	14 “	70 0 0	10 16 3
3rd Sept. “	15 “	75 0 0	
4th Oct. “	11 “	55 0 0	
Probable expenses, two latter trips.			24 0 0
		£315 0 0	£47 14 10

Mr. Parker has been paid on Acct. of the above, £350 0 0

Paid also his travelling expenses in the Province, 20 0 0

No. 24.—“Statement shewing the names of the several Railway Commissioners since the constitution of the first Board, the date of their several appointments, the amounts paid to each severally for salary, travelling and extra expenses; also, the names, dates of engagements, nature of employment, and amount of salary of each and every person now employed at the Railway offices in St. John, or who have been employed in the said office since the 1st August, 1857.”

Commissioners.

Names.	Date of App't.	Time in Office.	Paid on Acct. Salary.	Extra.	Travelling Expenses.
	1857				
W. H. Scovil, <i>Chairman</i> ,	March 31,	4½ mos.	187 10 0	62 10 0	15 16
F. W. Hatheway,	“ “	“ “	75 0 0	25 0 0	36 0
Jos. Myshrall,	“ “	“ “	75 0 0	25 0 0	24 0
			£337 10 0	112 10 0	75 16 3
R. Jardine, <i>Chairman</i> ,	Aug. 15,	16½ mos.	625 0 0	.....	49 12 6
Robert Reed,	“ “	9 “	150 0 0	.....	100 2 10
R. C. Scovil,	“ “	16½ “	250 0 0	.....	63 9 3
	1858				
George Thomas,	May 15,	7½ “	100 0 0	.....	9 10 0
			£1125 0 0		222 14 7

Officers.

Names.	Date of App't.	Nature of Employment	Salary.			
	1857					
James Whitney,	July 10,	Secretary,	£250	0	0	Per Annum.
	1858					
R. W. Crookshank,	May 18,	Accountant,	300	0	0	" "
Do.	July 10,	Secretary,	300	0	0	" "
Jas. Johnson,	" "	Accountant,	.....			Not fixed.
Chas. Hanford,	April 5,	Storekeeper } and Clerk. }	0	10	0	per day.
	1857					
John Porter,	May 15,	Messenger,	7	10	0	per month.

No. 25.—“Statement shewing the names of the general superintendent, assistant superintendent, and of all other persons engaged during the year 1858, and now engaged in working the portions of Railway already open; as well as the names of all persons connected with the repair and maintenance of the said portions of Railway, with the date of their several engagements, and the amount of salary or remuneration to each.”

See reply to Paragraph No. 8.

No. 26.—“Statement of the number and weight of all rails, chairs, and weight of spikes purchased for the Railway; the quantity of each now remaining on hand for use, with an account of all rolling stock, stationary engines, machinery, tools and plant of every description now owned by the Province, and in use on the Railway or the Railway works.”

FROM WHOM RECEIVED.	Rails.					Chairs.				Spikes.				
	No.	WEIGHT.				No.	WEIGHT.				WEIGHT.			
		Tns.	ct.	qr.	lbs.		Tn.	ct.	qr.	lb.	Tns.	Cwt.	Qr.	lbs.
Peto, Brassey, Betts and Jackson,	14596	2913	4	2	..	18550	100	19	2	16	80	12	2	9
Boston Locomotive Works,	2212	393	10	..	10	2700	27	1	2	11	.....	.....	.....	.....
Naylor, Vickers & Co.,	523	1014	10	2	..	4300	51	5	3	26	10	..	..	..
Harris & Allan, .....	.....	.....	.....	.....	.....	1327	15	8	..	21	.....	.....	.....	.....
Thorne & Lee, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	6	..	9
Boston Locomotive Works, Com- pound or Bridge Rails,	292	32	11	1	25	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baring Brothers,	11839	2190	9	2	..	9989	120	10	..	..	.....	.....	.....	.....
	34188	6544	6	7	..	36866	315	5	1	18	110	18	2	18
On hand,	2964	667	1	1	..	6367	54	1	..	15	1	4	..	12

For statement of Rolling Stock and Machinery, see Superintendent's Report pp. 108 & 111.

No. 27.—“Statement shewing the names of the Appraisers for Land Damages, the dates of their appointments, with the several amounts paid to each for services, for travelling and incidental expenses.”

Names.	Date of App't.	Paid on Acct. Salaries.	Expenses.
	1858		
James Smith, <i>Chairman</i> ,	Aug. 15.	130 0 0	} 48 12 7
Henry E. Seelye, <i>Secretary</i> ,	" "	289 16 9	
George L. Hatheway,	" "	185 0 0	
Isaac Burpee,	" "	187 10 0	
W. K. Chapman,	" "	129 0 0	
Robert Bowes,	" "	140 0 0	
Rent of Office,			12 10 0
		£1061 6 9	£61 2 7

No. 28.—“Statement shewing the amount of Law charges rendered to or paid by the Commissioners up to the 1st February, 1859, and to whom paid.”

To whom Paid and Services Performed.	Amount.
Hon. Charles Watters,—Drawing Deeds, Contracts and other legal instruments,	292 1 1
Attendance and advice, &c.,	100 0 0
Hon. A. J. Smith,—Drawing Deeds, &c.,	17 10 8
Bliss Botsford, Esq., do do,	7 0 0
Hon. E. B. Chandler, do do,	6 5 0
	£422 16 9

No. 29.—“Statement shewing the names of the several owners or proprietors on the line from Shediac to St. John, whose lands have been taken for Railway purposes; such statement to commence at St. John, and give the names of the owners as they succeed each other along the line, shewing the quantity of land taken from each, and the amount of compensation allowed to each, and date of payment, and the cases where compensation has been refused,—that fact to be stated.”

A Statement of Land Damage claims and awards will be found at page 123 of the Report. Should the additional details in above article be still required they can be furnished.

No. 30.—“Statement of the quantity of goods imported for Railway purposes on which no duties have been paid.”

Rails, Chairs Iron &c., - - - -	£14,608 14 7
Engine, Cars, and other Rolling Stock, - - - -	6905 17 3
Cement, and Sundry Materials, - - - -	492 16 4
	£22,007 8 2

No. 31.—“A Report from the Chief Engineer shewing in detail the damage estimated by him at £2000 on 1000 tons Rails imported through Naylor & Co., in the autumn of 1857; each statement to show quantity damaged in consequence:—

- Of bad rolling, and estimated damage per ton on same;
- Also, quantity badly trimmed, and damage per ton in consequence of same;
- Also, quantity, defective from the best part of the Pile lying in the base instead of the top of the Rail, and damage per ton;
- Also, time when these defects were first ascertained; what became of Rails so defective; and if used on line of Railway, on what part of Railway same are to be found.”

In reply to these questions it may be as well to revert to two letters addressed to the Chief Commissioner, Mr. Jardine, one from Mr. Reed, bearing date Liverpool, 11th Sept., 1857, the other from myself, the 30th November, in the same year. Extract from Mr. Reed's letter referred to above:

“By Mr. Seely, I send you a print, shewing different sections of Rails. The Bridge Rail, No. 1, is recommended by the manager of the establishment in which the New Brunswick Rails are being manufactured, as superior to the T Rail for two reasons—one is, that in the making, the pressure is vertical, by which process the head is more firmly pressed than the head of the T Rail, which is pressed sideways, causing the grain of the iron to be edgeways instead of flat, as in the Bridge Rail. And as they only put a certain proportion of the very best iron in the Rails usually made, styled *best Rails*, the best is put in the top of the Bridge Rails, which is the wearing part, whereas in the T Rails they are obliged to put it in the flange, in consequence of that part of the Rail being thin, particularly the Saint John pattern, which is thinner than usual.”

(Copy.) “EUROPEAN AND NORTH AMERICAN RAILWAY,
Engineer's Office, 30th Nov., 1857.

“ROBERT JARDINE, Esq.,
Chief Commissioner of Railways.

SIR,—I have carefully examined the Iron Rails delivered by the ‘Favourite’ and the ‘Middleton,’ and am sorry to be obliged to report that they are very badly rolled indeed. Many of the bars are $\frac{1}{8}$ of an inch larger on the base than the pattern sent, and an equally large number $\frac{1}{8}$ of an inch smaller, entirely precluding the possibility of the Rail making a proper fit in the chair. The ends of the bars are likewise very carelessly sawn off, many of them being full $\frac{3}{8}$ of an

inch off the plumb, so that if the ends of two of these Rails are laid together, there would be a **V** or vacant space of $\frac{3}{4}$ of an inch at either the top or bottom of the joint, as the case may be, and this is quite common. The tops of the Rails are likewise not of the same size, and very many of those already delivered, are odd lengths other than those specified.

“We have laid about an half mile of the iron brought by the ‘Favourite,’ and though we have taken unusual care to match the Rails, and have rejected a large number as unfit to lay at all with the present fastenings; we have yet found it *almost impossible* to lay a perfect track with them, the sizes of the Rails being so uneven. I have no hesitation in saying that, taking the iron as a whole, I consider it the very worst specimen of rolling I have seen. *I have as yet had no opportunity of testing the quality, but if Mr. Reed’s surmise be true, viz., that the manufacturers have put the best portion of the pile in the base of the Rail, this will have the effect of reducing the ultimate durability of the iron very materially.* Assuming the cost of the iron in England to be £8 5s. per ton, and adding the commissions, freights, insurance, &c., as well as the carriage to the works in this country, I conceive that this iron, when laid down upon the road, is actually worth at least £2 per ton less than good iron made exactly in accordance with the patterns and specifications, *and the best part of the pile laid, where it ought to be, viz., in the top or bearing surface of the Rails.*”

“I am, Sir, yours, &c.,

“ALEX. L. LIGHT, Engineer.”

Mr. Reed states that the best portion of the iron in the Rails referred to, was placed in the flange, subsequently it has been ascertained that he had been misinformed in reference to this matter. I, however, still retain the opinion then expressed with reference to the inferiority of the iron as regards the unevenness of roll; subsequent experience in its use having confirmed my opinion as to the deterioration of value.

It must be apparent that Rails of different gauge cannot without much trouble be fitted to chairs of *one* pattern; as in the case of the excess of size of Rail much difficulty ensues in effecting the requisite diminution.

The reverse being the case the Iron would be loose in the chair.

I may further add that apart from the expense of laying—these Rails are in many other respects greatly inferior to such as are well rolled.

I am still of opinion from other defects noticed in the iron since my letter of 30th Nov., 1857 was written, that it was deteriorated in value to the amount mentioned; entirely irrespective of the supposed displacement of Pile.

In addition to the above the Commissioners have to state that as these Rails had to be used as soon as they were received, they were laid in track indiscriminately and therefore the statements asked for cannot be furnished. Further, the Commissioners having been advised that they had no legal remedy for the damages arising from defective rolling in consequence of the arrangement that the inspection at the works was to be final, did not think it necessary to take any particular account of the number of rails defective or to ascertain precisely the actual damages, and did not require the Engineer to take any further steps in the matter.

No. 32.—“Statements shewing the quantity of rolling stock, machinery, and plant furnished to Contractors since 1st August, 1857; the time the same were used by such Contractors severally; the sums paid by the Contractors or charged against them for such use.”

At Pages 36, 107, and 110, of the Report will be found the information required.

No. 33.—“Statement shewing the total amount paid to the manufacturers of Engines, and Cars, setting forth the proportions paid according to agreement or Contract for such Engines or Cars, and the amounts subsequently paid or allowed for duplicate parts, for repairs, and for articles not included in the above; the parties to whom such sums were paid, stating each separately.”

Contractors Names.	Articles.	Amount paid per Contract.	Extras.	Repairs.	Duplicate parts.
Harris & Allan,	40 Ballast Cars,	648 0 0	134 16 0		
Do.	5 Freight Cars,	802 2 6	64 2 1		
Do.	5 Platform Cars,	561 17 6	12 0 0	5 15 3	
Fleming & Humbert	Loc. Loostauk, (2)	2100 0 0	225 0 0		
	1 sett Driv'g Wh'ls				300 0 0
Frederick James,	2 1st cl. Cars, 4 & 5	1500 0 0	35 17 8	9 13 9	
Jacob Hughes,	2 2nd class Cars	796 0 0	12 11 8		
Do,	5 Platform Cars	490 0 0	3 5 0	8 17 0	
Frederick James,	2 1st cl. Cars, 6 & 7	1500 0 0	35 17 8		

NOTE 1.—The extra work on F. James' 1st Class Cars, is chiefly for burlapping, which renders them more impervious to the effects of storms, and makes them vastly superior for winter travelling.

2.—The extra's on Locomotive "Loostauk" arises from altered dimensions.

No. 34.—"Copies of all correspondence between the Railway Board and Mr. Commissioner Reed, while he was in England."

Copies of all correspondence asked for accompany this Report.

The Commissioners respectfully request that one Letter marked A be not submitted to the House. It will be observed that in it no allusion is made to subjects in dispute but that it is on private affairs, and of a confidential character.

Nos. 35.—"Returns of freights paid on Iron Rails, and all other Railway material imported from England, since August, 1857; giving the names of the vessels, date of shipments, quantity of Rails and other materials in each shipment, dates they were received, and at what ports landed, and if all were delivered in good order."

"36. State, if any, what claim was made on the ships for damage in consequence of bad stowage or any other causes.

"37. The returns to show quantity of Rails and other materials in each separate shipment, and the freight per ton, if in sterling or currency; if the freights were engaged by tender, and copies of the tenders, if not engaged by tender, how and by whom were they engaged."

(See following page.)

Nos. 35, 36 & 37, included in one tabular Statement.

Name of Vessel.	Date of Shipment.	WEIGHT.				Description of material.	When Received.	Where Landed.	How, and by whom the Freight was engaged.	Rate of Freight.
		Tons.	Cwt.	Qrs.	lbs.					
Favorite,	Aug. 26, 1857.	105	12	0	0	Rails,	Oct. 8, 1857.	St. John,	} Naylor & Co., by private bargain.	15s. Stg.,
Middleton,	Sept. 18 " "	351	15	3	0	Rails,	Nov. 18, " "	Do.		17s. 6d. " "
" " " "	" " " "	19	6	0	20	Chairs,	} Dec. 3 " "	} Do.	} Robert Reed, Esq., by tender;—(see his correspond ^{ce} herewith.)	} 17s. 6d. " "
Imperial,	Oct. 9 " "	20	2	1	21	Iron,				
" " " "	" 10 " "	343	11	3	0	Rails,				
" " " "	" 17 " "	213	11	0	0	Do.,				
" " " "	" " " "	31	19	3	6	Chairs,	} May 15, 1858.	} St. John,	} 12s. 6d. " "	
" " " "	" " " "	10	0	0	0	Spikes,				
Middleton,	Mar. 15, 1858.	264	16	3	0	Rails,	} May 14, " "	} Do.	} 15s. " "	
Imperial,	Apl. 13 " "	973	18	3	0	Rails,				
" " " "	" " " "	20	10	0	0	Chairs,	} May 14, " "	} Do.	} 70l. stg. frght. of 2 Girders on Deck.	
" " " "	" " " "	21	6	0	0	Tyres & Beams,				
" " " "	" " " "	16	8	1	0	Girders,	}	} Shediac,	} 17s. 6d. Stg.,	
Montezuma,*	" 26 " "	515	0	0	0	Rails,				
" " " "	" " " "	29	2	0	0	Chairs,	} July 25, " "	} St. John,	} 12s. 6d. " "	
Boadicea,	June 4 " "	10	1	3	0	Pig Iron,				
" " " "	" 12 " "	235	2	2	21	Rails,	} Aug. 13, " "	} Do.	} Baring Bros. & Co., by private tender.	
" " " "	" " " "	70	18	0	0	Chairs,				
" " " "	" " " "	48	10	2	12	Bridge Material,	} Sept. 4, " "	} Do.	} 15s. " "	
William Carvell, ..	July 2 " "	31	17	2	25	Girders,				
Middleton, †	" 19 " "	125	7	3	15	Do.,	} Sept. 16, " "	} Do.	} 12s. 6d. " "	
Martha,	Aug. 6 " "	179	2	1	7	Rails,				
" " " "	" " " "	3	10	1	7	Axles,	} Oct. 1, " "	} Do.	} 10s. " "	
" " " "	" " " "	19	1	0	18	Loco. Materials,				
Lampedo,	" 24 " "	22	9	0	20	Rails,				

* £12 14s. 2d. Cur'cy, claimed and received, for damage on "Montezuma's" cargo. The damage was slight; some of the Rails being bent in consequence of cargo shifting in a gale. The owners though not legally liable, paid the above amt. rather than extend the protest.

† In taking an account of the Girder plates received per ship "Middleton," on 4th Sept., 1858; some were found missing, and the freight £98 14s. 11d. Sterling has been retained until it can be ascertained whether there is any deficiency.

No. 38.—A plan of the Station grounds and road, or right of way from Mill Street, in the City of St. John, to Gilbert's Island, in the immediate vicinity of the City, as laid out and recorded in July or August, 1857.

Two copies of this plan as recorded, on 1st Aug., 1857, accompany this Report.

The following additional article was added by the Hon. J. H. Gray, chairman of Committee on 7th March, 1859 :

No. 39.—“Statement wanted of all Contracts, with names of sureties relating to Section No. 5, Salisbury, and all sums paid thereon, to whom and for what purpose, shewing a detailed account of items, the reason ‘why it is not in a satisfactory state,’ whether under the control of Walker & Co., if not, to whom re-let, and for what sum, whether by tender or otherwise, and all particulars relating thereto.”

Section 5, Salisbury was let to Messrs. Walker & Co. on 15th December, 1857. The sureties were E. L. Thorne, Wm. T. P. Lee, and Adam Young of Saint John. At page 10 of general Report will be found a statement of the amount paid on Contract.

The following Reports by the Chief Engineer will explain the state of the Section.

St. John, Nov. 9, 1858.

R. JARDINE, Esq.

SIR,—I beg to report for the information of the Government that the rate of progress on Section, 5, Salisbury district is not such as to secure the completion at the time specified in the contract. For your better guidance I would state that the amount of contract is, - - - £25,172 17 9

Estimate for work done to 1st instant is, 7423 7 6

Yet to do, - - - - - £17,749 10 3

The time for working the Contract was, 22 mos.

Already expired, 10 mos.

Yet unexpired, 12 mos.

I have the honor to be, Sir,

Your obedient servant,

ALEX. L. LIGHT.

Engineers Office, Nov. 19, 1858.

ROBERT JARDINE, Esq.,
Chief Commissioner,

SIR,—In answer to your application for further reasons for the adoption of coercive measures on Section 5, Salisbury District, I would state that I consider the information con-

veyed in my letter of the 9th inst., to you (a copy of which I herewith enclose and beg to refer you to) alluding particularly to the proportionate progress of the work and the time elapsed, as sufficient reason for abandonment of the Contract as clearly provided for in the Contract and Specification.

For your further information I would remark that the works are in a backward and unsatisfactory state, and unless very energetic measures are immediately adopted to retrieve the time wasted, it will be impossible to complete the work within the specified time; moreover any delay in this Section will have a prejudicial effect upon the completion of the new Sections lately put under Contract between Salisbury and Sussex Vale, as all the material including the Rails and Iron Bridges &c., amounting in the aggregate to some 3000 tons must be carted at greatly increased expense, if the contiguous Sections East and West are not completed according to Contract.

To give an adequate idea of the delay that has arisen on this Section it will be necessary somewhat to enter into a history of this Work which was given to the Messrs. Walkers in December, 1857, although the Contract was not actually signed before the February following, this however, was a matter of no moment as very few of the Contractors on this Letting did any work worth mentioning prior to the opening of the Spring of 1858. The time for completing the Contract was fixed for the 1st day of November, 1859, or something under two years, including the favorable seasons of both, which was considered ample time to complete the work in.

The total amount of Contract was,	- - - -	£25,172
Work actually done up to 1st Nov.,	- - - -	7423
Still to do,	- - - -	<u>£17,749</u>

By this it will be perceived that at the expiration of the first seasons operations less than one third of the easiest part of the gross amount of the work had been done.

In entering more into the details of the work the result of the investigation does not improve its appearance, as under the site of two of the heaviest earth embankments at Wortman's and Nixon's brooks, *the keys of the whole work* (and which under favourable circumstances and the most assiduous exertions will require the principal portion of the time allowed by the terms of the Contract to properly complete and

consolidate prior to the laying of the Rails) the Culverts have barely been commenced ; in the first, a portion of the material has been delivered, but not one single stone laid ; on the second, a portion of the material is delivered and part of the foundation is laid.

These Culverts being laid in Hydraulic Cement cannot be built during the winter, and therefore will not be finished, at the earliest possible period, before July, 1859, and until they are completed the heavy earthen Embankments, the first, upwards of 80.000 and the second of 40.000 Cubic yards, which are to cover the Culverts, can progress but little further. The chief necessity for interference in this case, arises from the circumstance, that at the eastern end of this Section the best Ballast pit is to be had on this or either of the three adjoining Sections, and until the Culvert and Embankment at Nixon's containing as already stated upwards of 40.000 Cubic yards are completed, this Ballast cannot be used.

Fully aware of all these facts the Contractor has allowed these Culverts to be neglected notwithstanding the *repeated notifications* and *entreaties* of the Assistant Engineer in charge of the Section, to prosecute these *governing* portions of the work more vigorously.

In consequence of this neglect I recommend that the above Work be taken out of their hands as the Contract provides.

I remain, Sir,

Your obedient servant,

(Signed)

ALEX. L. LIGHT.

On reference to the 6th Section of Conditions of Contract, it will be seen "that if by the Report of the Engineer or Superintendent employed by the Government in their behalf, it shall appear that the establishment and rate of progress at and in the said work, are not such as to ensure the completion of the same within the time herein prescribed." "Her said Majesty shall have the power at her discretion, by the Chief Engineer aforesaid or his successors in office, without previous notice or protest, and without process or suit at law, either to take the work or any part thereof out of the hands of the parties of the first part, and to re-let the same to any Contractor or Contractors without its being previously advertised, or employ additional workmen, and provide materials, tools and other necessary things at the expense of the parties of the first part."

The following letters will give the remainder of the information asked for:

Saint John, Nov. 19, 1858.

SIR,—I enclose for the information of the Government, copy of Report of the Chief Engineer respecting the state of Section 5, Salisbury, of the Railway, and the Commissioners have to recommend that in accordance with the sixth condition of the contract, this work be taken from the present contractors, Messrs. Walker & Co., and re-let to the next lowest bidders, Messrs. McBean and McDonald, who are willing to take it at their tender, to take effect on 1st Jan., 1859.

I am, your obedient servant,

R. JARDINE.

Hon. S. L. Tilley,
Provincial Secretary,

Secretary's Office, 13th Jan., 1859.

SIR,—Your letter of the 19th Nov. last, enclosing Report of the Chief Engineer respecting the state of Railway, Section No. 5, Salisbury, and recommending that the work be taken from the Contractors of that Section and given to McBean & McDonald, having been under consideration of His Excellency, the Lieutenant Governor in Council, I am directed to inform you that the same has been fully approved.

I have the honor to be, Sir,

Your obedient servant,

S. L. TILLEY.

R. Jardine, Esq.,
Railway Chairman, St. John.

The transfer of this Section was made in accordance with the above, and it is not at present known that any additional cost will be incurred thereby.

Respectfully submitted,

By order of the Board,

R. JARDINE, *Chairman.*

R. W. CROOKSHANK, *Secretary.*

Fredericton, March 25th, 1859.

SIR,—In accordance with your letter of 23rd instant, in which I am requested to furnish in writing the explanation I had given verbally to the Committee of the Legislative Council of the differences in the classification between the Balance sheet in the Report of the Commissioners, and that submitted to the House of Assembly by the Auditor General. I have to make the following statements :

On reference to the Report at page 11, it will be observed that the expenditure on the European and North American Railway has been as follows :

1856.		
July 6,	Paid Peto & Co., for Work, Plant, and Materials,	£108,000 0 0
1857.		
April 1,	Expenditure under the Government,	58,452 11 11
Aug. 15,	Expenditure under first Commissioners,	41,344 11 7
1858.		
Oct. 31,	“ under present Commissioners,	317,292 15 0
		<u>£525,089 18 6</u>

The books in which the expenditure to 1st April, 1857, was recorded, were kept in the simplest form of single entry.

The ordinary system of mercantile book-keeping by double entry was introduced by the first Commissioners, but up to the time the present Commissioners came into office, no inventory had been taken of the property obtained from Messrs. Peto & Co., and there was no stock book to show where that, or the property since purchased was to be found.

As soon as these facts had been ascertained, the present Commissioners sent a person to Canada and the United States to obtain a knowledge of Railway book-keeping and traffic management, and on his return, and as soon as the traffic department had been organized, he commenced to take an account of all the Railway property.

It having been decided to adopt the system of book-keeping used by the Grand Trunk Railway of Canada, a competent Accountant was employed, and the books were made up from the period of the commencement of the Railway in July, 1856.

There being no vouchers in the office for the expenditure up to 1st April, 1857, duplicates not having been kept, entries had to be made from the books as they were, which

caused much delay and uncertainty, but from that period all entries were made directly from the vouchers.

It was not until October last that the books on the new system came up with the book-keeping on the former system, which had been carried on simultaneously, and as the stock account and traffic books had to be made up after that time and the results incorporated in the new books, the last quarterly account and the general balance sheet of the whole expenditure on the Railway, could not be got ready for the Auditor General before 13th Jan. last.

On preparing the Accounts for the Report which has been published, it was thought desirable, so as to give the fullest information possible to make some transfers from one account to another, and a balance sheet to conform was sent to the Auditor General on 15th Feb. and acknowledged in page 205 of the Journal.

The first balance sheet was however printed in the Journals at page 204, which renders it necessary to present the following statements explanatory of the differences in classification.

I am, Sir,

your obedient servant,

R. JARDINE, *Chairman.*

Hon. W. H. ODELL, *Chairman*
Railway Committee, Legislative Council.

STATEMENT

Shewing the difference between the Auditor's Report on page 204 Journals of House of Assembly, and the statements of Capital and Revenue Accounts, page 6 Report of Railway Commissioners.

Amount of Expenditure including Capital and Revenue Accounts per Auditor's Report,	£530,473 5 1
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—ADD.—

Additional Charges to Contractors, viz :—

D. P. Myers, use of Trains, Engines & Ball'st. Cars,	£741 15 0
Walker & Co., use, of Engines,	337 10 0
John Brookfield, do.	256 0 0
Walker & Co., Section 3, Bend, ....do.....	124 0 0

PERMANENT WAY.

Use of Engines and Ballast Cars, taking down Slopes &c., Bend and Shediac,	275 0 0
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Amount carried forward,	1774 5 0
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Amount bro't forward, ..	£1774 5 0	—	£530,473 5 1
Proportion of Depreciation in value of Machinery used in Construction,	66 16 7		
GENERAL STORE ACCOUNT.			
Amount to Debit of A. Smither's arising out of an error in his Account,	37 2 3		
Amount of Old Stores sold,	28 16 2		
TRAFFIC DEPARTMENT.			
Amount of Earnings not received at date,	447 16 0		
GENERAL STORE ACCOUNT.			
Amount charged for carriage of Materials &c., ..	127 3 10	—	2481 19 10
			<u>£532,955 4 11</u>
DEDUCT.			
Amounts to Credit of Walker & Thomson,			3 13 3
			<u>£532,951 11 8</u>
AMOUNTS PER PAGE 6, RAILWAY REPORT.			
Total of Capital Account,			£525,691 17 3
Total Debits of Revenue Account,			7,259 14 5
			<u>£532,951 11 8</u>

STATEMENT

On page 11 Railway Report, shewing expenditure to different periods is ascertained as follows, and is intended only to cover outlay for purpose of construction, not including the Revenue Account.

Total Amount of Capital Account as stated at page 6 Railway Report,	£525,691 17 3
DEDUCT.	
Cash and Traffic Department,	601 18 6
	<u>£525,089 18 6</u>

Engineering Accounts.

Amounts of Engineering Accounts as stated in Auditor's Report,	35,507 13 5
—ADD—	
Amounts of depreciation in Surveying Implements and Camp Equipage per General Store Account,	67 2 4
" Atkinson's time as Inspector of the Shediac Wharf per Revenue Account,	40 0 0
Total,	<u>£35,614 15 9</u>
DEDUCT.	
Amount Surveying Instruments on hand, and not in use per General Store Account,	£109 16 1
Amount Horses, Wagons and Harness on hand for Engineers use per do.	97 4 6
Amount per Railway Report,	<u>£35,407 15 2</u>

Permanent Way Account.

Amount of Permanent Way Accounts as stated in Auditor's Report,	£255,729 3 9
—ADD—	
AMOUNTS TRANSFERRED FROM GENERAL STORE ACCTS.	
Rails and Chairs per Middleton used on finished road,	2994 12 0
Sundry Materials furnished for Construction of Road, FROM BUILDINGS ACCOUNT.	2823 13 3
Amount paid T. C. Gallagher, for wharfing part of Branch, Moncton,	198 0 0
Sundries per Walker's Settlement (see their account)	512 16 2
Amount of Depreciation and Loss on Old Buildings included in the purchase from Jackson & Co., FROM REVENUE ACCOUNTS.	1317 1 3
Amount charged for Carriage of Rails,	3 3 5
Wm. Steadman, Station master's time Inspecting Sleepers last winter,	50 0 0
Amounts of Engine Drivers and Firemen's Time and use of Engines, taking down Slopes &c., from 4th May to 5th Aug., 1857, Moncton, FROM LOCOMOTIVE POWER.	275 0 0
Amounts Charged too much for Cordwood,	46 16 0
FROM M. OF WAY AND BUILDINGS.	
Amounts Charged at St. John for Sundries,	8 3 11
REVENUE ACCOUNT.	
Proportion of Depreciation in value of Machinery used in Construction,	£66 16 7 — 8296 2 7
	£264,025 6 4
DEDUCT.	
CHARGED CORDWOOD ACCOUNT.	
Amount included in Sumner's Contract for Brushing and Clearing Section 4, 5 & 16, Salistury, ..	106 17 6
“ Sundry Bills, Sawing wood Shediac,	58 16 9
Amount voucher No. 20—Bill Wood, St. John, ...	34 18 0
CHARGED GENERAL STORE ACCOUNT.	
“ Sundry Accounts p. p. Timber, Cement and Labour on same,	1622 8 4
“ Sundries from Fleming & Humbert, & C. B. Record & Co. p. Accounts,	597 5 11
CHARGED GENERAL STORE ACCOUNT, NO. 2.	
Amount Sundry Invoices, Rails, Chairs, Spikes, Duties, Freights, &c. &c.,	8342 14 11
Rails, Chairs, and Spikes supplied unfinished Sec- tions,	7635 4 2
Rails, Chairs and Spikes on hand,	14762 6 6
CONTRACT ACCOUNTS.	
Amounts formerly charged this Account now rever- sed until final settlement, viz.:	
D. P. Myers, Section No. 2, St. John,	18,800 10 8
John Brookfield, 4, “	8,111 17 0
Walker & Co., 5, “	5,776 17 4
Do. 6, “	2,709 14 9
Small & Crosby, Hammond River Viaduct,	1,578 17 0 — 70,138 8 10
Amount per Railway Report,	£193,886 17 6

Buildings Account.

Amounts of Buildings Account as stated in Auditor's Report.....	£19,830 18 11
—ADD—	
FROM GENERAL STORE ACCOUNT.	
Amounts of Sundry Materials furnished for buildings,	94 16 11
	£19,925 15 10
DEDUCT.	
CHARGED GENERAL STORE ACCOUNT.	
Amount of Large Lamp and Sundry Materials, . . .	23 5 0
CHARGED PERMANENT WAY.	
Amount Paid T. C. Gallagher for Wharfing Branch Road,	198 0 0
Amount of Expenses of Station yard, Masonry of Turntables, Fencing, &c.,	512 16 2
Amount of Depreciation and loss in old buildings included in Jackson purchase,	1317 1 3—
Amount per Railway Report,	2051 2 5
	£17,874 13 5

Rolling Stock and Machinery.

Amount of Rolling Stock and Machinery in Auditor's Report,	£48780 1 5
The whole of this Account charged to General Store Accounts,	£48780 1 5
The ascertained value of the Stock now in use on road, being there credited General Store Acct., and charged to this Acct.,	42885 5 11
The difference to be accounted for as General Stores constitutes the actual deduction,	5894 15 6
Amount per Railway Report,	£42885 5 11

Miscellaneous Stock.

Amount of Miscellaneous Stock as stated in Auditor's Report,	£1225 12 8
The whole of this Acct., charged to General Store Acct.,	1225 12 8
The ascertained value of all articles applicable to this Acct., and in use in the various offices and Stations being charged to this Acct. and credited to General Store Acct.,	1563 9 2
The difference to credit of General Store Acct., constitutes the addition,	337 16 6
Amt. per Railway Report,	£1563 9 2

The amounts stated in the Auditor's Report as "General Stores," "Rails and Chairs" and "Cordwood," constitute the same Account as given in the Railway Report under the name of "General Stores on hand."

The Auditor reports as follows:—

Rails and Chairs Account,	£24,279	11	2
General Stores,	1636	13	3
Cordwood, St. John,	552	10	11
Do. Bend and Shediac,	342	15	8
	<u>£26,811</u>	<u>11</u>	<u>0</u>
ADD—FROM PERMANENT WAY.			
Sundry Invoices of Rails, Chairs and Spikes,	£8,342	14	11
Amt. of Do. do. do. do.			
supplied Contractors,	7,635	4	2
Amt. of Rails, Chairs and Spikes on hand,	14,762	6	6
“ P. P, Timber, Cement, &c.,	1,622	8	4
“ “ Sundries from Fleming & Humbert and C. B. Record & Co.,	597	5	11
FROM BUILDINGS' ACCOUNT.			
Large Lamp and Sundries,	23	5	0
FROM ROLLING STOCK AND MACHINERY.			
Whole amount of this Account,	48,780	1	5
FROM MISCELLANEOUS STOCK.			
Whole amount of this Account,	1,225	12	8
FROM ENGINEERING ACCOUNTS.			
Horses, Wagons, Harness, &c.,	97	4	6
Surveying Implements, &c., on hand,	109	16	1
FROM LOCOMOTIVE POWER.			
Amt. of Tallow and Waste on hand,	85	9	4
FROM GENERAL CHARGES ACCOUNT.			
Amt. paid for Tickets, Press, &c.,	156	17	0
FROM REVENUE ACCOUNT.			
Carriage and expenses on sundry Materials,	127	3	10
FROM PERMANENT WAY.			
Amt. of Wood, per Voucher, No. 2,	34	18	0
900 Cords Wood, included in Summer Contract for clearing and burning,	106	17	6
Sundry Bills—Sawing Wood, Shediac,	58	16	9
FROM LOCOMOTIVE POWER.			
Sundry Bills—Wood and Sawing,	39	17	10—83,805 19 9
			<u>£110,617 10 9</u>
DEDUCT—CHARGED PERMANENT WAY.			
Invoice Rails, &c., per “Middleton,”	2,994	12	0
CHARGED CONTRACTORS, &c.,—VIZ.:			
Walker & Co., Sections 5 and 6, St. John,	16,268	2	4
Do. “ 5, Salisbury,	3,609	8	2
D. P. Myers, “ 8, Hampton,	1,423	13	5
John Brookfield, “ 4, St. John,	353	9	7
McBean & McDonald, Sec. 4, Salisbury,	6,879	13	1
Johnston & Blackie “ 7, Hampton,	6,044	11	6
Thomas King, “ 9, “	2,415	13	5
Geo. Craig—Rails and Chairs for making Frogs, Fleming & Humbert, Duties, &c.,	187	13	11
R. C. Scovil,—Sundries sold at Auction,	80	12	10
A. Smithers—250 brls. Cement,—twice charged, ROLLING STOCK AND MACHINERY.	22	6	4
64	14	6	
Ascertained value of Stock on hand and in use on road,			
	42,885	5	11
Amount carried forward,	<u>£83,229</u>	<u>17</u>	<u>0</u>

Amount bro't forward...		£83,229 17 0	110,617 10 9
MISCELLANEOUS STOCK.			
Furniture in General Office and Stations,.....	1,563 9 2		
BUILDINGS' ACCOUNT.			
Sundry Materials furnished,	94 16 11		
ENGINEERING ACCOUNT.			
For ascertained depreciation in Surveying Imple- ments, &c.,	67 2 4		
LOCOMOTIVE POWER.			
Oil, Tallow, Waste, &c., Shediac,.....	126 12 0		
“ “ “ “ St. John,.....	279 17 0		
Merchandize and Passenger Cars, St. John.....	13 17 4		
MAINTENANCE OF WAY AND BUILDINGS.			
Sundry Materials,.....	0 19 6		
GENERAL CHARGES.			
Tickets sold to date,.....	22 8 6		
Walker & Co., Section 5 and 6, St. John, Sundries,	547 14 11		
“ “ “ 5, Salisbury, “	554 18 2		
D. P. Myers, “ 2, St. John, “	159 6 5		
F. James, Car Builder, “	141 11 2		
John Brookfield, Sec. 4, St. John, “	183 5 4		
Small & Crosby, Cement,.....	7 10 0		
Fleming & Humbert, Sundries,.....	12 6 0		
Wm. Stevens, Sec. 14, Sussex, do.,.....	3 0 0		
Permanent Way, “	2,823 13 3		
Locomotive Power, wood, St. John,.....	105 2 11		
“ “ “ Shediac,	284 17 5	90,222 5 4	
Amount per Railway Report,		<u>£20,395 5 5</u>	

D. P. MYERS, SECTION NO. 2, ST. JOHN.

Amounts as stated in Auditor's Report,.....		21,388 10 8
—ADD—		
Amount from Permanent Way formerly credited now reversed until final settlements,	£18,800 10 8	
GENERAL STORE ACCOUNT.		
Plant and Materials furnished,	159 6 5	
REVENUE ACCOUNT.		
Amounts charged him for use of Trains for his workmen, &c.,	275 0 0	
Proportion of Expenses Repair of Ballast Cars used by him in Construction,	93 15 0	
Use of St. John and Petitcodiac Engines, Driver and Fireman's time &c. &c.,	373 0 0	19,701 12 1
		<u>£41,090 2 9</u>
DEDUCT.		
Amount charged Fleming & Humbert,.....		12 8 2
		<u>£41,077 14 7</u>
Of this Amounts for Personal Advances is,	38,598 11 10	
for Iron Bridge and Rails,	2479 2 9	
Amount per Railway Report,.....	<u>£41,077 14 7</u>	

 JOHN BROOKFIELD, SECTION NO. 4, ST. JOHN.

Amount as per Auditor's Report,		£6681	1	4
—ADD—				
Amount formerly charged Permanent Way, now reversed until final settlements,	8111	17	0	
GENERAL STORE ACCOUNTS.				
Sundry Plant and Materials,	183	5	4	
Rails and Chairs &c., for Construction,	353	9	7	
REVENUE ACCOUNTS.				
Use of Petticodiac and Loostauk Engines, Driver and Firemen's time, &c.,	296	0	0	— 8944 11 11
				<u>£15,625 13 3</u>
Personal Advances,	15,272	3	8	
Rails, Chairs, &c.,	353	9	7	
Amount per Railway Report,	<u>15,625</u>	<u>13</u>	<u>3</u>	

WALKER & CO., SECTION NO. 3, MONCTON.

Amount per Auditor's Report,		1331	17	2
ADD.—REVENUE ACCOUNT.				
Use of Engine, Drivers and Firemen's time, &c., .		124	0	0
Amount per Railway Report,		<u>£1,455</u>	<u>17</u>	<u>2</u>

WALKER & CO., SECTION NO. 5, ST. JOHN.

Amounts per Auditor's Report,		22,715	17	9
—ADD—				
Amount Charged Permanent Way now reversed until final Settlement of Accounts,	5776	17	4	
Amount Charged Section 5, Salisbury, in error, ..	1455	0	0	
REVENUE ACCOUNT.				
Use of Engines St. John and Kennebecasis, Drivers and Firemen's time &c.,	337	10	0	— 7569 7 4
Amount per Railway Report,		<u>£30,285</u>	<u>5</u>	<u>1</u>

WALKER & CO., SECTION NO. 6, ST. JOHN.

Amount per Auditor's Report,		9043	0	11
—ADD—				
Amount Charged Permanent Way now reversed until Settlements,	2709	14	9	
GENERAL STORE ACCOUNT.				
For Rails, Chairs and Spikes for use of Section No. 5 and 6,	16,268	2	4	
Sundry Plant and Material,	547	14	11	— 19,525 12 0
				<u>£28,568 12 11</u>
Personal Advances,	12,079	3	4	
Rails, &c., for Nos. 5 & 6,	16,489	9	7	
Amount per Railway Report,	<u>28,568</u>	<u>12</u>	<u>11</u>	

WALKER & CO., SECTION NO. 5, SALISBURY.

Amount per Auditor's Report,	£7191 10 11
—ADD—	
GENERAL STORE ACCOUNT.	
Plant and Materials, &c.,	554 18 2
Rails, Chairs, &c.,	3609 8 2—4164 6 4
	<u>11,355 17 3</u>
DEDUCT.	
Amount charged in error should be Section 5, St. John,	1455 0 0
	<u>£9900 17 3</u>
Personal Advances,	6270 10 3
Rails, Chairs, &c.,	3630 7 0
Amount per Railway Report,	<u>£9900 17 3</u>

D. P. MYERS, SECTION NO. 8, HAMPTON.

Amount per Auditor's Report being personal Advances,	10,340 17 11
—ADD—	
Rails, Chairs, &c., for Construction,	1423 13 5
Amount per Railway Report,	<u>£11,764 11 4</u>

SMALL & CROSBY, HAMMOND RIVER VIADUCT.

Amount per Auditor's Report,	£13,793 10 9
—ADD—	
Amt. charged Permanet Way, now reversed until settlement,	£1,578 17 0
General Store Acct. for Cement,	7 10 0—1,586 7 0
	<u>£15,379 17 9</u>
Personal Advances,	£9,112 1 9
Iron Girders, &c., for Bridges,	6,267 16 0
Amt. per Railway Report,	<u>£15,379 17 9</u>

JOHNSTON & BLACKIE, SECTION 7, HAMPTON.

Amount per Auditor's Report,	14,354 7 4
ADD—GENERAL STORE ACCOUNT.	
Rails, Chairs, &c., for Construction,	6,044 11 6
	<u>£20,398 18 10</u>
Personal Advances,	£14,333 18 4
Rails, Chairs and Spikes,	6,065 0 6
Amt. per Railway Report,	<u>£20,398 18 10</u>

 THOMAS KING, SECTION 9, HAMPTON.

Amount per Auditor's Report,	£4213 10 3
—ADD—	
General Store Account, Rails, &c.,	2415 13 5
	<u>£6629 3 8</u>
Personal Advances,	4205 3 9
Rails, Chairs and Spikes,	2423 19 11
Amount per Railway Report,	<u>£6629 3 8</u>

M'DONALD & M'BEAN, SECTION 4, SALISBURY.

Amount per Auditor's Report,	13,457 1 3
—ADD—	
General Store Account, Rails, Chairs, &c.,	6879 13 1
	<u>£20,336 14 4</u>
Personal Advances,	£13,330 6 9
Rails, Chairs, &c.,	7006 7 7
Amount per Railway Report,	<u>£20,336 14 4</u>

FLEMING & HUMBERT.

Amounts per Auditor's Report,	£392 2 8
—ADD—	
Amt. from D. P. Myers' Acct., Sec. 2,	£12 8 2
GENERAL STORE ACCOUNT.	
For Axles, Wheels and Netting,	12 6 0
Duties and Freight of Material imported for Locomotives,	80 12 10 — 105 7 0
Amt. per Railway Report,	<u>£497 9 8</u>

FREDERICK JAMES.

Amount per Auditor's Report,	1,356 10 9
ADD—FROM GENERAL STORE ACCOUNT.	
Rubber Springs, Car Wheels, &c.,	141 11 2
Amount per Railway Report,	<u>£1,498 1 11</u>

GEORGE CRAIG.

Amount per Auditor's Report,	£139 13 2
ADD—GENERAL STORE ACCOUNT.	
For Rails and Chairs for making Frogs, &c.,	187 13 11
	<u>£327 7 1</u>
Personal Advances,	£65 0 0
Rails, Chairs and Iron,	262 7 1
Amount per Railway Report,	<u>£327 7 1</u>

LOCOMOTIVE POWER ACCOUNT.

Amount per Auditor's Report,	£3731 13 3
—ADD—	
FROM GENERAL STORE ACCOUNT.	
Oil, Tallow and Waste Materials, for Repairing Engines, &c.,	406 9 0
Cordwood, Shediac,	105 2 11
“ St. John,	284 17 5 — 390 0 4 — 796 9 4
	£4528 2 7
DEDUCT.	
Sundries charged Cordwood Account,	39 17 10
do. do. Permanent Way,	46 16 0
do. do. M. & Passenger Cars,	59 7 10
Tallow and Waste on hand charged General Store Account,	85 9 4
R. C. Scovil, Cash paid him for labor, &c.,	1 13 9 — 233 4 9
Amount per Railway Report,	£4294 17 10

MERCHANDIZE AND PASSENGER CARS.

Amount per Auditor's Report,	1261 8 2
—ADD—	
FROM GENERAL STORE ACCOUNT.	
Materials for Repairing Cars,	13 17 4
FROM LOCOMOTIVE POWER.	
Oil used by Cars,	59 7 10 — 73 5 2
	£1334 13 4
DEDUCT	
Amount charged R. C. Scovil, Expense on Freight, ..	4 2 7
Amount per Railway Report,	£1330 10 9

MAINTENANCE OF WAY AND BUILDINGS.

Amount per Auditor's Report,	334 18 2
ADD.—Sundries from General Store Account,	19 6
	£335 17 8
DEDUCT.	
Sundries charged to Permanent Way Account,	8 3 11
Amount per Railway Report,	£327 13 9

GENERAL CHARGES.

Amount per Auditor's Report,	£1,441 0 7
ADD—FROM GENERAL STORE ACCOUNT.	
Amount of Tickets sold,	22 8 6
	<hr/>
	£1,463 9 1
—DEDUCT—	
Ticket Press and Tickets charged to General Store Account,	156 17 0
Amount per Railway Report,	<hr/>
	£1,306 12 1
	<hr/>

Saint John, N. B., }
9th April, 1859. }

SIR,—You requested me this morning to give you in writing any explanations I had to offer respecting certain letters published by Messrs. Thorne & Lee relative to spikes, and also to explain some expressions in Mr. Robert Reed's letters to me, by which it might be understood that a higher price had been paid to Messrs. Barings for rails, than they could have been purchased for elsewhere by Mr. Reed.

With respect to the Spikes, I have to say, that fifty tons were ordered from Messrs. Thorne & Lee for last years operations, to be delivered as required, but from an accident having happened to the machinery by which at one time a quantity required for immediate use could not be obtained, the Commissioners thought it expedient to order a small quantity through Messrs. Barings as a reserve.

On these being received, and compared with Messrs. Thorne & Lee's Spikes, it was found that the former were cheaper and made of better iron.

Samples of both were shewn to the Committee this morning.

As the Commissioners did not think it consistent with their duty to the public, even for the sake of encouraging domestic manufacture to pay Messrs. Thorne & Lee a higher price for their inferior article than a better article could be got for elsewhere, they directed Messrs. Barings to take tenders from the principal houses in the trade in England, for such rails, chairs and spikes as would be wanted this year.

On hearing from Messrs. Thorne & Lee that they were willing to supply spikes as low as they could be imported, and made from iron of approved quality, a letter was sent to Messrs. Barings by first mail thereafter requesting them not to make a contract for spikes, but by last mail the Commissioners were informed that the contract had been closed before the receipt of their letter.

Mr. Reed states I think in some of his letters that he had been offered rails at a lower price than that named to him by Messrs. Barings.

He afterwards informed me that he had misunderstood the matter, as the rails Messrs. Barings could purchase were "hammered," while those offered by Messrs. Naylor were "rolled" and *not* "hammered," which was equivalent to more than the difference in price.

I am Sir, your obd't servant,

R. JARDINE.

Hon. J. H. Gray, Chairman
Railway Committee.

The Committee appointed on the 29th day of February last to examine and report upon the Reports and Documents relative to the European and North American Railway Works laid before the House by Message from his Excellency the Lieutenant Governor

REPORT:

That having as far as was in their power examined the Reports and Documents submitted to them, they proceeded on the 17th of March last, that being the earliest day on which the Chief Commissioner of Railways with the Chief Engineer could attend, to the examination of the several witnesses who had been summoned before them, and have continued without intermission, from that day to the 9th instant inclusive, examining such witnesses and taking evidence.

That in anticipation of the immediate prorogation of the Legislature, the Committee closed their examinations on the 9th inst., leaving their investigations incomplete. They would state, however, that there is in the mode of keeping the books a marked improvement. The system now adopted is very similar to that in use on the Grand Trunk in Canada, and is apparently calculated at all times to afford ready and correct information of the Receipt and Expenditures connected with the Railway in every department and under all circumstances.

That it is established by the evidence before them, that the whole road from St. John to Shediac, assuming the remaining portions thereof to be completed in as efficient a manner as are those now completed, will be a first class road of superior description well and solidly built.

That the cause of the apparent discrepancies between the Account of the Commissioners, the Chief Engineer, and the Auditor General's Report thereupon has been satisfactorily explained, and that such discrepancies are not likely to occur again.

That according to the evidence before this Committee there is no ground whatever for suspecting fraud or misappropriation with the public moneys either to the former or present Commissioners and that both Boards have to the best of their knowledge, endeavoured to act judiciously and prudently in the management of the important interests entrusted to their care.

In page 12 of the Report of the Commissioners there will be found "statement shewing the actual cost of construction, Grading, Roadway and of Station grounds, from Mill street to Gilbert's Lane, St. John, to 30th April, 1857.

Labor of Grading, Masonry, Pile driving &c., paid Walker, Brookfield and Myers, - - - - £4191 18 8

The testimony of the Chief Commissioner before your Committee on the same subject was: That there was a direct loss on the grade at Gilbert's Lane of £4100; and that the Work that was done between Gilbert's Lane and Mill street amounted to £4000, and the greater portion had to be abandoned, and that for this loss the Government in 1856 and '57, of which the Chairman of this Committee was a member, was responsible.

The testimony of Mr. Light in reference to the same work is as follows:—

"I do not consider the £4191 at all extravagant for the work done between Gilbert's Lane and the Mill Pond. It is a heavy division of the road, and that expenditure was all necessary to ultimate completion of the road, some part temporary and some part final.

"The whole cost of the work done during the winter of 1856 and '57, between Gilbert's Lane and the Mill Pond, including £344 of permanent sleepers as per Contract exhibited to House of Assembly in 1857 was £2530. The portion of those I conceive to be permanent, including the Pile Bridge over the Mill Pond, which is necessary for a freight track, is £1679, leaving for temporary purposes £851, and in my opinion then and now, that temporary expenditure was justified for the

final purposes and objects of the work. Had that expenditure not been made there would have been no dividend.”

That owing to the short period of time at their command, and the voluminous and conflicting character of the evidence, it is impossible for the Committee to determine whether, taking the whole line into consideration, the road might or might not have been built cheaper, or whether one less expensive would not have been more in accordance with the wants and necessities of the country.

That the Committee have had no opportunity of inquiring into the prudence or economy of management, or of the probable returns of traffic, and therefore abstain from expressing any opinion on those and other points, to which had further time been at their command it would have been their duty to have turned their attention.

The Committee, considering the immense expenditure under the Control of the Chief Commissioner, his also being the head of one of the most important Departments in the public service. In view of the time occupied each Session by large Committees of the Legislature with the affairs of that Department, and in furtherance of the public interests would also recommend that the Chief Commissioner or some member of the Railway Board should be a member of the Executive Council and hold a seat in the Legislature, and that the necessary legislation to accomplish that object, be forthwith adopted.

Committee Room, 11th April, 1859.

J. H. GRAY,
E. A. VAIL,
JOHN McADAM,
P. MITCHELL,
DAVID TAPLEY,
B. BOTSFORD,
JOHN McMILLAN,

REPORT OF A COMMITTEE
OF THE
LEGISLATIVE COUNCIL.

The undersigned members of the Committee appointed to report upon matters relating to the Accounts and Construction of the European and North American Railway, having had under consideration the Report of the Railway Commissioners referred to them on the 3rd ultimo, beg leave to offer the following observations.

1. They regret that it is not in their power to submit a full report upon the questions referred to them. The subject is in itself one which must necessarily require much time and attention, more in fact than can well be devoted to it during the sitting of the Legislature, with a due regard to the general business of the Session.

They have further to remark that two of their numbers having been obliged to return home some time ago, those remaining naturally feel a delicacy in expressing their views upon points not previously discussed. They are moreover of opinion that a full and impartial report in regard to the construction, working and maintenance of the Railway would require a very minute investigation, which could only be accomplished by a careful inspection of the Road, Stations, and Rolling Stock, together with practical illustrations of the working system now in operation.

Under these circumstances the undersigned have decided to confine their remarks to points investigated by the whole Committee with the exception of a few general observations.

2. The first point to which the Committee directed their attention was that relating to the Accounts, particularly the great discrepancies apparently existing between those published by the Commissioners in their Report, and those reported on by the Auditor General, and which affected not only the gross amount but in most instances each separate head of expenditure.

3. Without here expressing an opinion as to the judicious or economical expenditure of the money it is due to the Commissioners to say that the discrepancies alluded to have been satisfactorily explained.

4. The investigation of this branch of inquiry has been lengthy, having occupied by far the greater portion of the time which the Committee were enabled to devote to the subject.

The Committee have examined the Auditor General and the head Clerk of his Department, the Chief Commissioner of Railways, and the Railway Accountant, and have had before them the detailed accounts and a portion of the vouchers connected therewith. This point being one in which the Legislature, as well as the public, have evinced a peculiar interest, and one not readily explained in a short Report. It was deemed advisable to call upon the Chief Commissioner and the Auditor General to submit separate explanations in writing. These were promptly furnished and are appended to this Report for the purpose of affording detailed information on this head.

5. Much of the difficulty in respect of the Accounts has arisen from the want of a well digested and uniform system in keeping them. And the Committee were informed by the Auditor General's Department that the absence of a proper classification of the vouchers so as to correspond with the several abstract accounts had caused considerable delay and much additional trouble in Auditing.

6. These difficulties, it appears had not escaped the attention of the Commissioners, and were in a measure partly anticipated, enquiries having been instituted by them into the most approved modes of keeping Railway Accounts. Their investigation has resulted in the adoption of that now in opera-

tion upon the Grand Trunk Railway of Canada. The Committee have examined the new set of books opened under the direction of the Commissioners, and they are pleased to be enabled to report their belief that the system is well adapted to the service, and they are assured that under it, difficulties such as have heretofore arisen in reference to the accounts cannot again occur, and that by this arrangement great facilities will be afforded in Auditing future Accounts.

7. The question of a water terminus at Saint John having been brought to the notice of the Committee, they are deeply impressed with the importance of using great caution in the selection of this Terminus and the necessity of ascertaining what facilities proprietors are willing to afford before fixing upon any site, and it is hoped that the serious attention of the Government and Railway Commissioners will be directed to this important point, free from local and individual influences.

8. The general character of the Road.—While from information before the Committee they are of opinion that the works have been well executed and are highly finished, it is a matter worthy of grave consideration of the Government and the Railway Commissioners whether an equally substantial road, and one in every respect suitable to the wants of the country might not have been constructed at a less cost, and if so they trust that a more economical system will be adopted in future.

9. General Staff and Expenses of Management.—No complete return on the subject having been submitted, the undersigned are unable to ascertain the exact annual charge incurred therefor during the past year, but from the returns made in the supplemental Report of the Railway Commissioners and a statement of persons employed in the Engineering Staff laid before them, the sum thus expended appears to be very large.

The undersigned are of opinion that this is also a matter requiring the attention of the Government and Railway Commissioners under the full impression that a saving might be effected in these charges. They would therefore recommend an investigation of the subject with a view to reduce the expenditure under these heads so far as may be consistent with a due regard to the efficiency of the several departments.

10. In conclusion, the undersigned have to remark that the utmost harmony and good feeling prevailed throughout their

investigations, the Committee have alone been actuated by a desire to institute a fair and impartial inquiry into the matters referred to them, and they beg also to bear testimony to the ready promptitude evinced by the Auditor General and his Department. The Chief Commissioner, Chief Engineer, and Railway Accountant in affording information and explanations whenever called upon.

All of which is respectfully submitted.

Leg. Council Chamber, April, 1859.

W. H. ODELL,
A. E. BOTSFORD,
W. H. STEVES.

European and North American Railway.

OPINIONS OF THE PRESS.

[From the "American Railroad Journal," New York, March 12, 1859.]

"The comprehensive plan involved in the conception and construction of this railway is in keeping with, and will account for its comprehensive name. It is no less than a line of rails across the State of Maine, and the provinces of New Brunswick and Nova Scotia, to the nearest available continental harbor of North America to Ireland, and is in reality a plan for shortening the time of passage between the metropolis of the New World and the metropolis of the Old. In the words of its projectors, "no one familiar with the commonest principles of commercial economy can for a moment doubt the truth of the assertion, that at some time or other the necessities of trade will require the adoption of the shortest possible sea voyage between the continents of Europe and America. The discerning minds of both continents have seen the rapid approach of this event in the various measures by which lines of railway have been pushed out from the great commercial centres of England and the United States towards each other, in the direction of the shortest line between them."

The construction of the Britannia Tubular Bridge, and of the Railway from Dublin to Galway—the latter place being the nearest harbor in Great Britain to North America—long ago awakened public attention to some corresponding movement on this side of the Atlantic, with a view of fulfilling the great requirement spoken of. In June, 1850, a few public spirited individuals of Portland, Maine, united in a memorial to the legislature of that State, asking that a survey should be made with a view to ascertain the most practicable route for a railway from Bangor to the boundary line of the Province of New Brunswick, in the general direction of St. John.

From the easternmost point of Nova Scotia (Cape Canso) to Galway Bay, in Ireland, the distance is about 2,000 miles. The nearest available harbor to Cape Canso, and but a short distance west, is Whitehaven, which, according to the authority of Admiral Owen, who had surveyed it, "is a most splendid and commodious port at the nearest available point of North America to Ireland, its natural facilities greatly exceeding those of Halifax or any other point upon the coast." Galway Harbor, on the west coast of Ireland, is one of the finest in the world, having great advantages over Bristol or Liverpool. The distance from Galway to Dublin is 120 miles; from Dublin to Holyhead, 63 miles; and from Holyhead to London, 263 miles.

From White Haven to St. John the distance is less than 250 miles; from St. John to Waterville, in Maine, to which point there then existed a continuous line of railways from New York, is about 200 miles. These lines have since been extended east to Bangor, 55 miles nearer to St. John. The entire distance from New York to London, by the line indicated, and the time required for its passage, is shown in the following table:

	Hours
London to Holyhead, by railway, 263 miles,.....	7½
Holyhead to Dublin, steamer, 63 miles.....	3½
Dublin to Galway, by railway, 120 miles,.....	4
Galway to White Haven, steamer, 2,000 miles,.....	128
White Haven to Bangor, by railway, 400 miles,.....	13½
Bangor to New York, " 477 miles,.....	16
Total distance, by steamer, 2,063 miles.....	
Total distance, by railway, 1,260 ".....	

Total distance 3,323 miles.

Time,..... 172½

hours—or 7 days 4½ hours.

From an inspection of a globe, it will be seen that this route follows nearly upon the great circle between the two extremes. It varies so slightly from it as to be but little, if any, longer than the route usually taken by the steamers from New York to Liverpool, which is estimated at from 3,100 to 3,300 miles. In the above table the speed of the steamers is calculated at 16 miles per hour, which it is admitted is a much faster average rate than is now accomplished; but it must be borne in mind that a shortening of sea voyage from 3,300 to 2,000 miles would dispense with 40 per cent of the coal and other extra weight now carried.

A capital of \$200,000,000 invested in railways between Galway and London, has a direct interest in the plan proposed, as well as a capital of almost equal amount in New England and Canada.

These, and many other pertinent facts and arguments, were embodied in the memorial to the Legislature of Maine, which was a most ably written, and foreseeing document. The movement in Maine aroused a corresponding movement in the Provinces, and a convention was immediately called, to be held in Portland on the 31st July, 1850. The convention was attended by delegates from all the British Provinces, and most of the Northern and Eastern States. It embraced the most distinguished men of the Provinces as well as of the New England States, and was by far the largest and most enthusiastic assemblage of the kind ever convened in this country. The Session lasted three days, adjourning on the 2nd August, after passing a series of pertinent resolutions, and appointing an executive committee to make applications for the necessary charters, &c. The Legislature of Maine promptly responded to the object of the convention, and although the statutes of the State forbid that any charter should be granted until after full surveys are made, and plans and estimates of cost exhibited, yet a charter was immediately granted, of the most liberal character—perpetual in duration—the company not subject to taxation—stockholders excepted from the provisions of the individual liability law, and the charter not subject to alteration. The company was permitted to organise on a subscription of \$1,000,000. The bill became a law Aug. 20, 1850, and on the same day the appropriation for surveying the line was made. Aug. 27 another act was passed, providing that, in case said company should be constituted a corporation in the British provinces, it might increase its capital stock to \$15,000,000. In the meantime the government of New Brunswick had directed the survey to be made from St. John to the boundary of Maine, under the charge of John Wilkinson, Esq. A. C. Morton, Esq., was appointed by the Governor of Maine to make the surveys in that State. Surveys had already been made from St. John eastward, as far as Shediac, on the Gulf of St. Lawrence. The route for the whole distance proved to be of a feasible character, involving no serious obstacles. The Legislature of New Brunswick, at its next Session, granted a charter of incorporation for the construction of the road within the limits of the Province, and liberal provincial aid was extended. So far, nothing that could be required in the way of legislation was wanting. The railway revulsions of the past few years have, however, conspired to delay the realization of the great object. The State of Maine, by its constitution, is debarred from incurring a debt exceeding \$300,000, and, beyond the surveys, could not materially aid the project. The means of its capitalists have been required to

develop projects of more local interest; and with the exception of the line from Waterville to Bangor, (55 miles in length,) before referred to, nothing has been done this side of the boundary of New Brunswick. There was, however, an inherent weight in the plan, and the momentum given it at this convention has not died out. The ultimate completion of the line is inevitable. The words of the late General Dearborn, in his speech at the convention, are prophetic, and his reasons unanswerable:—

“I feel satisfied that it can be done. I feel satisfied that it will be done. All history and all experience show that the necessities of commerce seek out the nearest and shortest routes for travel and business. Calais and Dover have been the points of embarkation ever since the invasion of Cæsar, and for no other reason, but because they were the nearest points between the Island of Great Britain and Continent of Europe. Cape Sunium was the point of concentration for the trade of Greece, simply because it was the nearest point to Egypt. Why was the Appian Way extended from Capua to Brundisium, on the Adriatic Gulf? Because that was the nearest good harbor, near the narrowest place in the Adriatic Sea, in the most direct line from Rome to Constantinople. Why was the Suspension Bridge of Telford extended across the Menai Strait to the Island of Anglesey? and the still more wonderful work of modern times, the Britannia Bridge across the same Strait? Because it was in the most direct line from London to Dublin and Ireland. If you will examine the map, you will find that in all time past, the points of islands or continents which approach the nearest, have become the high-ways of their intercourse and their commerce. It is for this reason that I believe that the highway for the trade and communication between this country and Europe must be made to the eastern coast of Nova Scotia.

“Look at the map of America, and see who will be benefited by the completion of this undertaking? All of us, from the country bordering on the waters of the St. Lawrence and on the Lakes of Canada, to the fertile valleys of the Mississippi and its tributary streams. There are no less than fifteen States of this Union directly interested in this line, and there are millions who will be rejoiced at the prospect before them. But not only will the world be benefited by the productions of these fertile districts being widely distributed, but by freedom of intercourse, asperities and misunderstandings between great nations will be softened and removed, and at all events, a firm and lasting friendship will be produced between two great nations speaking the same language and advocating the same principles of civil and religious liberty. When Dewitt Clinton first opened his canal to Buffalo, that was almost the extent to which travellers could go west; and the trade was of scarcely any moment, except in furs and in the productions of the forest. Now it is on the way to the great granary of the earth; and the trade which reaches the Erie Canal from beyond it, is far greater than all it receives this side of Buffalo. The project we are now considering is one of equal importance, and its accomplishment will confer equal honor upon its authors. Vast as the enterprise is, it can still be accomplished.”

We are led into this general history of the European and North American Railway, and these quotations, by a perusal of the annual reports of the Chief Commissioner, R. Jardine, Esq., and the Chief Engineer, Alex. L. Light, Esq., of this Railway, which have just been made to the government of the Province of New Brunswick.

Although nothing, as before stated, has been done in the State of Maine towards carrying out this great international line beyond the making of surveys from Bangor to the boundary line of New Brunswick, yet the project has been studiously followed up in New Brunswick, and in Sept. 1852, a contract was entered into between the provincial company and the English firm of Peto, Brassey, Betts, Jackson & Co., for the engineering, construction and equipment of the entire line from St. John to the Gulf of St. Lawrence, at \$31,200 per mile. With the exception of the aid provided by the Provincial Government, the contractors really furnished the means for building the road. The work progressed under this contract until July, 1850, when the whole enterprise was transferred over to the Provin-

cial Government, and the contract with Messrs. Peto & Co. was cancelled—the contractors receiving \$432,000 for work and materials upon the road to that date. Since then the work has been executed directly by the Government; part of the time under the sole superintendency and engineership of A. L. Light, Esq., but latterly under the charge of a Board of Railway Commissioners; of whom R. Jardine, Esq., is Chairman—Mr. Light still acting as Chief Engineer. The reports of these gentlemen present a detailed, concise and satisfactory statement of the progress and condition of the works up to the present time, and will well repay any one for their perusal.

From them it appears that the total length of the line now completed and under construction is 109.18 miles extending from St. John to Shediac on the Gulf of St. Lawrence, of which 29.9 miles are in operation, viz: 9.6 miles from St. John eastward, and 20.3 miles from Shediac westward to Moncton, including a branch of about 1 mile in length at the latter point to the wharves. The first named division was put under contract on the 10th of Jan'y, 1857, and although it involved extremely difficult and expensive work, was opened for traffic on the 1st June, 1858, at a cost of \$43,236 per mile. The latter was let on the first August, 1856, and opened for traffic on the 20th August, 1857, at a cost of \$25,940 per mile. The whole length of the road from St. John to Shediac, including the branch mentioned, being 109.18 miles, there remain 79.28 miles yet to be completed all of which is under contract, and in a forward state.

The cost of the whole line from Mill street, St. John, to Shediac harbor, including the Moncton branch: stations, wharves, rolling stock, land damages and engineering, amounts to \$3,711,904; or an average per mile of \$34,000.

Its state of progress may be summed up as follows :		Miles.
1st Division—Shediac to Moncton, completed,		19.42
2nd do. —St. John to Salmon Brook, do.		9.60
	Branch to wharves at Moncton, do.	0.88
3d. do. —Hampton to Sussex, $\frac{1}{2}$ done,		23.18
4th. do. —Moncton to Head of Peticodiac, 2-5th done,		20.59
5th. do. —Sussex to head of Peticodiac, let, cleared, and work well in progress,		24.51
Total,		109.18

The total expenditure on the works to 1st November, 1858, was as follows:—	
To July 6, 1856. Purchase of road and materials from Messrs. Peto & Co.	\$432,000
From July 6, 1856, to April 1, 1857. Expenditure under superintendence of A. L. Light, Chief Engineer,	233,809
From April 1, 1857, to October 31, 1858. Expenditure under direction of Board of Commissioners,	1,434,548

The total cost as before stated being	\$2,100,356
Leaving to be yet expended	\$1,611,548

The road will cost about \$2,800 per mile more than the original price agreed on in the contract with Messrs Peto & Co., but the reports give a full and satisfactory explanation of this difference. Work of a superior quality to that required in the specifications of that contract has been adopted, and necessary work has been done not included in that contract, all of which would have been an extra charge. The alignment has been perfected; the road straightened; reversed curves avoided, and the total curvature reduced 1.723°, or nearly five full circles; the length of the road has been reduced eight per cent.; permanent stone structures have been adopted in lieu of trestle works and wooden culverts; bridges over or under the road have been substituted in place of level crossings; more wood and water stations have been constructed than contemplated originally; additional depot grounds and wharves have been purchased, and more fencing has been constructed than first contemplated. These additional expenditures, necessary to the

construction of a first class road and indispensable to its traffic when completed, all of which would have been an extra charge by Messrs. Peto & Co., are estimated to amount to \$7,232 per mile—which, added to the original contract price, would have made the cost of the road \$38,432 per mile. From this, if there be deducted the present estimated cost \$34,000 per mile, it will appear that, what is apparently an increase of cost, is in fact a saving of nearly \$4,500 per mile, or nearly half a million dollars in the aggregate. The minimum radius of curvature is 2,865 feet; the maximum 12,278 feet between St. John and Moncton. By the original location, under the Peto contract, the minimum radius was 1,584 feet, and the maximum 5,280 feet. On the original location the total amount of straight line was 70.9 miles, while on the new location it is 79.7 miles. The highest point of grade upon the line is but 165 feet above high water at St. John, and the maximum grade is 45 feet per mile. Seventy-five curves have been dispensed with and straight lines substituted. Ten of these curves were *reversed* curves, always highly objectionable, while sixteen others were nearly as bad, being reversions connected by short tangents of from only 20 to 90 feet in length.

The whole line from St. John to Shediac is only eight per cent. longer than an air line—a result, considering the rugged character of the country, which could only have been arrived at by most thorough examinations and skilful engineering. The details of the works are all of the most thorough description. The excavations wide to give perfect drainage; all the bridges of over forty feet span of iron. The rails weigh sixty-three pounds per yard. The track is ballasted with broken stone and gravel in the most thorough manner. The gauge is $5\frac{1}{2}$ feet. Engineers and others who have examined the road, speak of it, without exception, as being one of the most thoroughly constructed on this continent, if not equal to any in Europe. The officers having charge of the work have judiciously kept in view the original object of this line, viz, a great international passenger railway, and have spared no pains to fulfil the conditions required in such a work. It is a line upon which the highest rate of speed can be obtained with safety. That all this is accomplished at the comparatively low cost of \$34,000 per mile, or \$4,500 per mile less than it could have been obtained for under the original arrangement with Messrs. Peto & Co., is a significant commentary upon the absurdity of these great contracts. No method can be more disastrous than that of placing everything in the hands of contractors, allowing them to select their own engineers, make their own locations and design their own structures. No matter what the skill, or reputation, or honesty and good intentions of the contractors, their own pecuniary interest is very naturally the chief criterion by which every question of alignment, gradients, or construction is tested. The results developed by the operations on the European and North American railway prove that the cancellation of the original contract was a fortunate negotiation for the Province, and that the management of the works has been in careful and competent hands. The reports bear inherent evidence of the correctness of their statements, and we have seldom seen any so full in their detail.

All the contracts for grading the remaining portions of the road are to be completed by the 1st June, 1860; but should circumstances render it an object to open the whole road for traffic before that time, the grading could be easily completed by 1st Oct., 1859, and sufficient ballast can be easily laid on during the spring, to admit of the whole being certainly opened with safety by the 1st June, 1860.

The Nova Scotian Railways have, during this time, been progressing as quietly but as certainly as those in New Brunswick. A line is now in operation from Halifax to Truro, 61½ miles, and an extension of 60 miles would carry it to the line between Nova Scotia and New Brunswick, and about 50 miles more would make the connection with the line from Shediac to St. John. With the completion of this portion of the European and North American Railway, the following would be the only links wanting in a continuous chain of Railway from New York to Halifax, viz :

	Miles.
Bangor to boundary of New Brunswick,	90
Boundary to St. John,	70
Head of Peticodiac to boundary line of N. S.,	50
Boundary line to Truro,	60
	270

Upon the completion of such a chain, there can be no doubt of the possibility of shortening the time of passage between New York and London to eight days."

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[From the "American Railway Times," Boston, March 26th, 1859.]

"European and North American Railway.

So little has been said of this project, since the great Railway convention held in Portland in August, 1850, that we had begun to think the "plan for shortening the time of passage between New-York and London," had been indefinitely postponed. The entire plan contemplated the construction of a railway from Waterville, Maine, boundary of New-Brunswick, 145 miles—thence to St. John, 70 miles—thence through the eastern part of New-Brunswick and Nova Scotia, 240 miles, to White Haven, that being the nearest available harbor of North America to Europe. It was estimated that the construction of these lines besides opening and developing a large local business, would reduce the time of passage between New-York and London as shown in the following table:

New York to Waterville,	422	miles by	Railway,	14
Waterville to St. John,	215	..	Railway,	7
St. John to Whitehaven,	240	..	Railway,	8
Whitehaven to Galway,	2,000	..	Steamer,	128
Galway to Dublin,	120	..	Railway,	4½
Dublin to Holyhead,	63	..	Steamer,	3
Holyhead to London,	263	..	Railway,	7½
Total distance, miles, ...	3,323		Total time, hours, ..	172

or 7 days and 4 hours. A connection was also contemplated with the Railway then being built from Halifax to Truro. The plan is a magnificent one, and its consummation perhaps not so far off as we had supposed. Railways extend from Dublin to Galway. A line of Steamers is now plying between Galway and New-York. The cars are running to Bangor, 55 miles east of Waterville. The road is completed from Halifax to Truro, and upon an inspection of the late able and thorough report of the Chief Commissioner and Chief Engineer of the New-Brunswick line, we find that the Railway is far advanced towards completion between St. John and Shediac on the Gulf of St. Lawrence, a distance of 109.18 miles. The Road was originally commenced by a chartered company, and a contract entered into for its construction, with the same firm who constructed the Grand Trunk Railway of Canada, Messrs. Peto, Brassy, Betts & Co. The price to be paid was \$31,200 per mile. The contractors were to do the engineering and furnish buildings and Equipment, according to an agreed schedule. Under this contract the work progressed from September, 1852, to July, 1856, when the Provincial Government assumed the whole work, and the contract was cancelled by the contractors receiving \$432,000 for work and materials upon the Road to that date. It is now in charge of a Board of Commissioners, of whom R. Jardine, Esq, is Chairman. Alex. L. Light, Esq, formerly Engineer of the St. Andrews and Quebec Railway, is the Chief Engineer. Their Report gives a full history of all operations up to 1st of November, 1858, and is accompanied with tabular statements of all expenditures to that time, together with the amount of work yet to be done. Since the transfer of the work to the Government, the expenditures have been \$1,668,356, which with the amount expended under the original organization, makes the construc-

tion account now stand, \$2,100,356. The following table gives the result of this expenditure in the progress of the work :—

1st Division—Shediac to Moncton, completed and in operation,.....	19.42 miles.
2d Division—St. John to Salmon Brook, completed and in operation,	9.60 miles.
Branch to wharves at Moncton, completed,.....	0.88 miles.
3d Division—Hampton to Sussex, half done,.....	23.18 miles.
4th Division—Moncton to head of Peticodiac, two-fifths done,.....	20.59 miles.
5th Division—Sussex to head of Peticodiac, let, cleared and work well in progress,.....	24.51 miles.

Total,..... 109.18 miles.

The estimated balance required to complete the Road is \$1,611,548, making the total cost complete, \$3,711,904, or about \$34,000 per mile.

The length of the Road as originally located by Messrs. Peto & Co., was 110.84 miles, making its cost under their contract \$3,458,208.

Its cost under the present management will therefore be \$253,696 more. The report however gives a most satisfactory exhibit of the causes of this difference. Under the original contract the contractors made their own locations. Since the transfer to the Government, the whole line has been revised with the following result. The curvature has been reduced 1.728°—and the length reduced eight per cent. Seventy-five curves have been thrown out and straight lines adopted in their places. Ten of these were reversed curves and sixteen others were reversions with short radients of twenty to ninety feet only in length. The radii of the curves has been increased, the minimum and maximum being now 2865 and 12,278 feet respectively, while originally they were 1584 and 5280 feet. The total straight line has been increased from 70.9 miles to 79.7 miles.

In respect to radients and curves, the present location will compare with the old one as follows :—

	Straight Line.	Curved Line.
Old location,.....	70.9	39.94
New location,.....	79.7	23.48

Inc. of straight line,..... 8.8 miles. Dec. of curved line... 11.46 miles.

These improvements are of vast importance and independent of any other considerations, would warrant a very great increase of cost. But this is not all that has been accomplished by the increased expenditure.

The specifications of the old contract permitted inferior work of various descriptions, and it has been deemed expedient to change the character of many of the structures. Permanent Stone Culverts and Bridges have been adopted in place of wooden culverts and trestle work, and Bridges over or under the Road have been erected instead of crossings at grades. All the bridges of over 40 feet span are of iron.

The excavations have been made wider to give more perfect drainage.

The estimates for buildings, equipment, wharves, fences, &c. include more than the original contract contemplated. As the requirements of the Road have been developed, it has been found that the original specification was deficient in these items, and if the Road had been completed under that contract, these expenditures would have been necessary and would have been an extra charge. The Engineer estimates the cost of these improvements and additions at \$7,232 per mile, so that to have made a first class Road, and such a road as the European and North American Railroad should be, would have cost under the original contract \$38,432 per mile, or about \$4,500 per mile more than the present cost. That this expenditure has been judiciously and carefully made, the report convinces us. This Railway to fulfil its mission, must be a *passenger* Railway, and one upon which the highest speed can be maintained with certainty and safety, as well as with economy. The traffic that a road is designed for, should determine the character of its alignment and its grades. If for a heavy freight traffic at slow rates of speed, with the greatest loads for each engine, curvatures may be submitted to, to a considerable extent, if by its means heavy grades can be avoided,

and the Road made level, but where a high rate of speed is required, with light passenger trains, curves are to be avoided even at the alternative of the adoption of heavy gradients. This principle we believe to be a sound one, and its correctness easily demonstrated. There can be no question that the improvements in the alignments of this Road, made by Mr. Light, are equivalent to a saving of six to eight miles of distance, and as before remarked, would fully warrant the increase of cost without considering the other improvements mentioned; with all this however, the maximum grade is but forty-five feet per mile. The line is but eight per cent. longer than an air line between its termini. These features prove that the Road has been thoroughly and carefully surveyed, and that the government has made a fortunate selection of this Commissioner and Engineer. The Road is said to be one of the most perfectly constructed on this continent. Every detail is looked to with scrupulous care, every minutia carefully specified, and every contractor held to the strict letter of his agreement. The result is, work of the most substantial character, which the maintenance of way and working expenses, will by and bye test.

It would seem from all this that the plan of letting Roads by the mile in great contracts, by which the contractors control their own locations, and make their own specifications is anything but true economy. The interests of the contractor by the mile, lie in making the Road as long as possible, and in doing this he is not likely to stop for any very abstrusive calculations to determine the difference in value between a straight line or a curve. He very naturally, also, applies but one standard criterion in determining the character of the various structures required, and that is, *first cost*. Whatever costs least is in his view the proper plan to be adopted. It matters but little how close or arbitrary are the specifications. In all such contracts large amounts of securities are taken for pay. This gives a contractor an undue weight and influence in the company, and this he certainly will not use in any way likely to place control of the work in the hands of those who would hold him to a very strict accountability.

The Grand Trunk Railway of Canada is one example of the pernicious effects of the great per mile contracts. Since the Road was received from the contractors millions have been expended in perfecting it, and the end is not yet. We do not mean to say that contractors defrauded the company, but we merely mention the fact as proving, that the entire control necessary to the construction of first class substantial Roads, cannot be maintained under such a system.

The York and Cumberland Railroad is another example. This Road was originally let at about \$30,000 per mile, yet up to the first day of January, 1857, 18½ miles then in operation had cost so much (about \$1,100,000) that it became necessary to consolidate, and by an agreement of all interest it was reduced to \$400,000. It was undoubtedly a fortunate negotiation for the province, when the contract with Messrs. Peto & Co. was cancelled.

The conduct and management of this work and its unembarrassed progress so far, may be proudly held up by our provincial neighbours, as an example for some of our government works in the States. It is expected that the line from St. John to Shediac, will be completed by June or July, 1860. The following will then be the only remaining links wanting to complete the entire chain of Railway to Halifax, viz. :—

Bangor to St. John,	160 miles.
Head of Peticodiac to the boundary of Nova Scotia,	50 miles.
Boundary line to Truro,	60 miles.

Total,

From Truro to Halifax, the Road is completed and in operation.

We had almost forgotten to mention that the European and North American Railway has been aided by the advice and experience of Wm. Parker, Esq., of Boston, who has been acting as Consulting Engineer."

