

ONTARIO  
NORTHLAND  
RAILWAY  
DIARY

1903 - 1908

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1903

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Whereas, the Commission is under the authority of the Act of the Legis-  
lature of the Province of Ontario, 2 Edward VII. chapter 9, construing  
a railway from North Bay to Lake Temiskaming.

And Whereas the Commission desires to secure for a limited period the  
right to run its trains, both passenger and freight, over the railway track of  
the Pacific Company between Nipissing Junction and North Bay, and to use  
the yard and terminal facilities of the Pacific Company at North Bay, which  
track and yard facilities are hereinafter called "The Joint Premises."

And Whereas the Pacific Company is willing to grant the said right to  
the Commission upon the terms and conditions hereinafter contained;

Now therefore this agreement witnesseth, that the parties hereto, each  
for itself, its successors and assigns, hereby covenant and agree as follows,  
that is to say:

1. (a) The Pacific Company shall, during the continuance of this agree-  
ment, subject to the conditions hereinafter contained, allow the Commission  
to use the Pacific Company's track either way between Nipissing Junction  
and North Bay for trains, both passenger and freight.

(b) And also to use the yard and facilities of the Pacific Company at the  
last-named point.

(c) The use of the said terminal facilities at North Bay shall include,  
amongst other things, the use of switching engines, the services of all the  
station and yard staff of the Pacific Company, the making up and setting  
away by the Pacific Company of the trains of the Commission, the conducting  
and handling by the Pacific Company of all the freight and passenger busi-  
ness of the Commission at North Bay, and the ordinary station accounting in  
connection therewith, the Commission providing its own blank forms.

2. The Commission shall pay to the Pacific Company for the right above  
granted of using the track of the Pacific Company either way between Nipis-  
sing Junction and North Bay the sum of two dollars and forty cents for each  
passenger train, and two dollars and eighty cents for each mixed or freight,  
or any other class of train, run either way between the said two points.

3. For the terminal facilities above mentioned at North Bay the Commis-  
sion shall pay to the Pacific Company the following compensation:—Fifty  
cents per car for each and every car, empty or loaded, arriving at, and a simi-  
lar charge for each and every such car leaving the North Bay yard of the  
Pacific Company in the trains of the Commission, except cars of carload  
freight destined to points on or via the railway of the Pacific Company, and  
taken out of the said North Bay yard in the trains of that Company, and cars  
of carload freight arriving at the North Bay yard in the trains of the Pacific  
Company destined to points on or via the railway of the Commission, and  
taken out of the said yards on trains of the Commission; provided, however,  
that the minimum sum that shall be paid to the Pacific Company in respect  
to any one train of the Commission arriving at or leaving the said yard shall  
be four dollars. No charge shall be made under this clause for light engines,  
that is, engines without cars which arrive at or leave the said yard. In addi-  
tion to the above-mentioned sums the Commission shall pay to the Pacific  
Company for the same facilities the sum of twenty-five cents per ton for every  
ton of freight handled at the freight sheds of the Pacific Company at North  
Bay and which is destined to or which originated at a point on the railway  
of the Commission. The Commission shall also pay the cost of providing a  
telegraph operator at the point of junction of the railway of the Commission  
with the railway of the Pacific Company (if the Pacific Company decides that  
such operator is necessary) and the cost of the necessary accommodation for  
such operator.

1903

4. The Pacific Company shall give the same care and attention and do the same work to the passenger and freight cars arriving at and leaving North Bay in the trains of the Commission as it does at that point to its own cars of the same class in similar service, including, in the case of passenger cars, any labor engaged and the use of any tools required in the cleaning and lubricating of said cars and in supplying them with ice water, fuel and oil and other materials for lighting and lubricating, and the Commission shall pay the Pacific Company for the same the sum of one dollar for each passenger and baggage car so cleaned and cared for, and also the actual cost, plus ten per cent., of any ice water, fuel, oil, waste or any other supplies or material furnished, and of any inspection and repairs to the said passenger cars, including labor and material (the cleaning in the case of sleeping and parlor cars to be what is known as "railroad cleaning"), and in the case of freight cars arriving and leaving North Bay in the trains of the Commission, the Commission shall pay the Pacific Company the actual cost, plus ten per cent., of any inspection and repairs made, including labor and material, and of any oil, waste or other supplies furnished to such cars by the Pacific Company.

5. The Pacific Company shall for and in consideration of the amounts hereinafter specified respectively which the Commission hereby covenants to pay to the Pacific Company, perform the following services and furnish the following supplies for or in connection with the engines of the Commission at North Bay:

Handling, turning, housing and cleaning locomotives, including labor, dumping and lighting up fires .....	\$1.40 per engine.
Repairs .....	Cost plus 10 p.c.
Water .....	25 cents per tender.
Coal, cost, including freight charges plus 10 cents per ton for accounting	
Oil, waste and other running supplies .....	Cost plus 10 p.c.

6. Bills for moneys due the Pacific Company each month under Clauses two and three, four, five and seven or otherwise under this agreement are to be rendered by that Company as soon as possible after the end of that month, and the Commission shall pay any moneys so due within thirty days after the receipt of the bill for the same. If the Commission fails to make payment to the Pacific Company for thirty days after notice in writing from the Pacific Company to the Commission of such failure, this Agreement shall at the option of the Pacific Company cease and terminate.

7. The Pacific Company shall construct and maintain the necessary switch connection at the East end of the said North Bay yard, and the Commission shall reimburse the Pacific Company the cost of the same.

8. The Commission shall handle and move its train between the said switch connection and the North Bay yard, and between Nipissing Junction and the North Bay yard with its own engines and engine and train crews, entirely at its own expense. The enginemen and trainmen and other employees of the Commission when on its trains or engines or elsewhere on the joint premises shall be governed by the rules of the Pacific Company, and the movement and handling of the said trains and engines on the said premises shall be subject to the rules and regulations and to the directions of the Pacific Company.

9. The trains of the Pacific Company shall have preference on the joint premises over the trains of the Commission of the same or inferior class, and the trains of the Commission shall have preference over the trains of the Pacific Company of an inferior class.

1903

r all amounts owing to him for  
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all such losses and damages as

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Chairman and Secretary.

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ING & NORTHERN  
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(SEAL.)

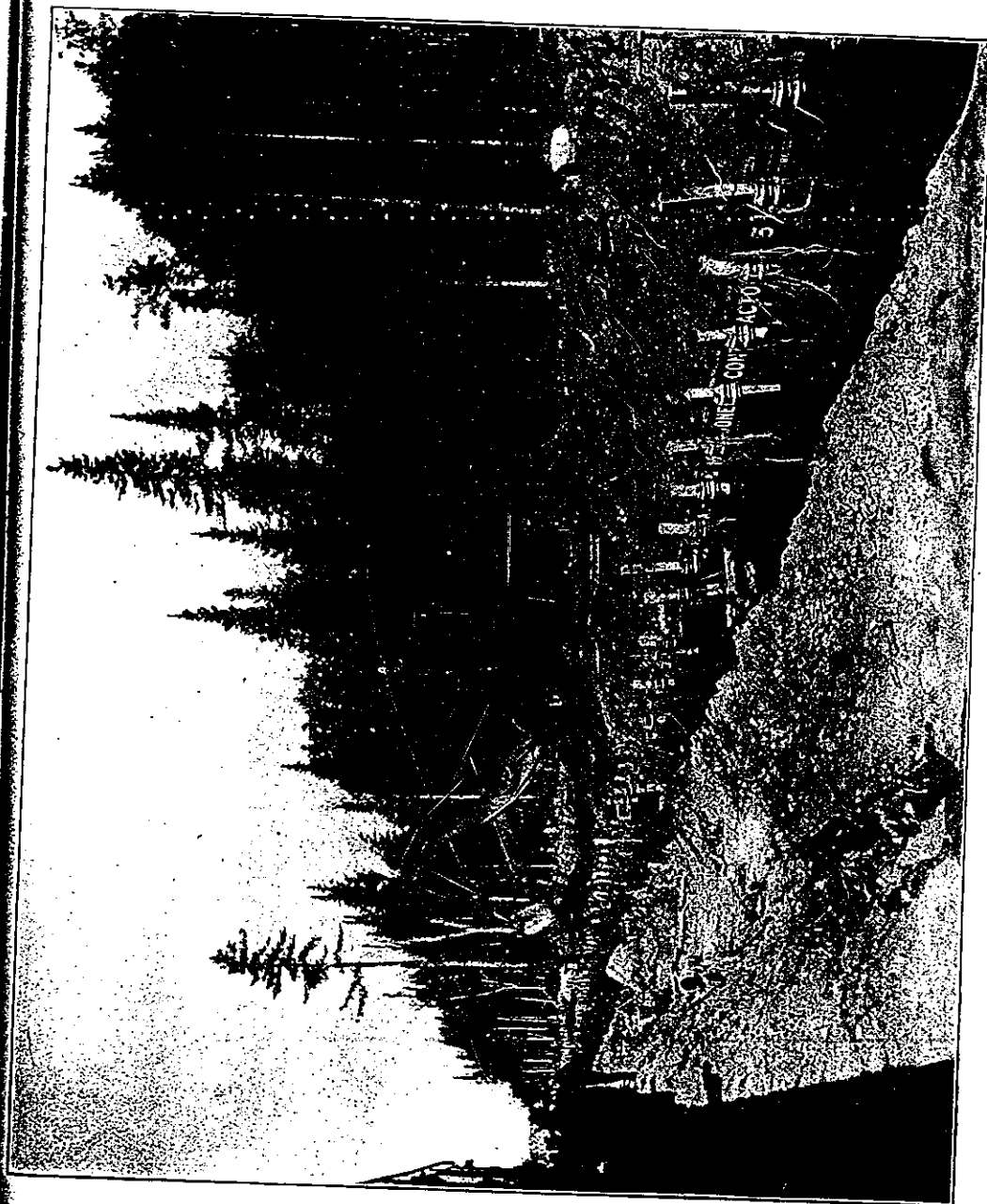
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Unloading Ballast, T. & N. O. Ry.

1903



Steam Shovel Loading Bullock Train to E. N. A. No.

1904

## PART III.

## ROLLING STOCK AND EQUIPMENT.

*Rental of Rolling Stock.*

In the month of February the Grand Trunk Railway Company made application to the Commission to rent two locomotives which were then completed and stored at Kingston, and later extended the request to cover the four locomotives of the Commission. With the consent of the Government, the four locomotives were accordingly rented at \$10 per day each; the Grand Trunk Railway guaranteeing that they would be used only on such portions of their system as had the best roadbed and undertaking to return them in ample time for the requirements of the Commission, and subject to proper inspection of their condition on return. Under this arrangement engines Number 1 and 2 were under rental to the Grand Trunk Railway from February 12th to April 24th, and engines Number 3 and 4 from February 12th to April 8th.

The Contractor had before that time applied for the use of these engines and a number of flat cars, when the season for ballasting should open, and after the return of the engines from the Grand Trunk they, and flat cars, were handed over to the Contractor under the following agreement:

MEMORANDUM OF AGREEMENT made this fifth day of March, 1904, between ALLAN RANALD MACDONELL hereinafter called the Contractor, of the first part; THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission, of the second part; and THOMAS LONG of Toronto, JOHN J. LONG, of Collingwood and the HONOURABLE WILLIAM HARTY OF KINGSTON, hereinafter called the sureties, of the third part.

WHEREAS, By Indenture dated the 3rd day of October, 1902, the Contractor agreed with the Commission to furnish all necessary materials, labor, tools, machinery and plant, and to execute and complete all the works required in connection with the building of the Temiskaming and Northern Ontario Railway according to certain plans profiles and specifications as in said Indenture is more fully set forth.

AND WHEREAS, the Contractor is required by the Commission's Engineer in pursuance of the terms of the said contract, to provide for the said work on said railway, on or before the first day of May, 1904, one additional steam shovel, with the necessary additional plant and appliances which the Contractor represents to the Commission would involve large expense to him in the purchasing or otherwise procuring of additional engines and flat cars in consequence of which the Contractor has requested the Commission to rent to him for use on the said work, certain engines and flat cars now being built for the said Commission.

1904

1907  
townsite, and many parties, to get early on the ground, have put up claims. Rights of these parties will be respected as far as possible in making subdivision.

*Cochrane.*—Sufficient land for townsite and railway purposes has been secured at junction with National Transcontinental Railway. This townsite has been named Cochrane. Detailed surveys are now being made so that a proper relation may be established between station grounds and subdivided townsite.

*Sesikinka.*—Surveys were made for land required for townsite purposes at Sesikinka Lake. Plans have been submitted to Department of Lands, Forests and Mines for approval.

*Dane.*—At Dane, formerly called Boston, land has been secured and surveys are being made for townsite. Location will be at west end of road leading into Larder Lake. There is a possibility of this becoming an important traffic point.

#### TERMINALS (NORTH BAY JUNCTION).

*Engine House and Machine Shop.*—The Forest City Paving Co., contracted work on their contract and completed machine shop and eight stalls of engine house. Side walls are up for seven additional stalls, and concrete roof has been put upon three of these. Concrete work in connection with engine pits in seven extra stalls has been completed.

Seldons, Limited, of Galt, Ont., installed hot air, blast system of heating in above buildings. As far as tested, system works satisfactorily.

Two 75 h.p. boilers have been set, to furnish power to machine shop equipment, and supply steam for heating coils, over which air passes to the fan in connection with heating system.

In addition to equipment, which is now being moved from temporary machine shop, new building will be equipped with one 50 k.w. generator with direct connected engine, air compressor, 40 h.p. stationary engine, dotting machine, lath polishing wheel, etc.

Foundations for all machines are of concrete.

*Blacksmith Shop.*—Under contract with Clarke and Monds of Toronto, a concrete blacksmith shop 30 ft. x 60 ft. was built. This building is completed with exception of waterproofing of roof. Forges and other machines are being installed.

*Turntable.*—A 75 ft. turntable was supplied and placed in position by the Locomotive & Machine Co., of Montreal. Concrete pit required in connection with this table was built by the Forest City Paving Co.

*Coal Shed and Trestle.*—Messrs. Wyse & Middlemist, of Toronto, completed their contract for coal shed and trestle in April. It has been in successful operation since that date.

*Water Supply.*—Under contract with the O'Boyle Bros., Construction Co., of Sault Ste. Marie, Ont., 40,000 gallon standard tank was built near new engine house.

An agreement was entered into with the Town of North Bay for supply of water. Pipes were laid from end of town system, at corner of Railway and Golf Sts., to tank. Meter was placed in the supply line.

Distributing system to the different buildings, engine pits, etc., was installed by our Mechanical Department.

Hydrants have been placed on this system, and thus good protection from fire is afforded.

Tank in east end of yard is kept in order so that in case of failure on part of town to provide water we will not be left without supply.



# ENGLIHA

**Supply.**—To obtain a quick, locomotive purposes, it was necessary to pump water from the River to tank, a distance of about 100 ft. The tank is about 95 ft. Pump and bridge, and necessary pump operation.

to secure a supply of pure water for  
to drive one deep well. After con-  
Wright Bros., of Petrolia, and  
of station and west of track.

analysis of the water from this  
for domestic use; but slightly h  
purposes. The addition of a sm  
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per hour. The results from well No. 1 were satisfactory farther north. Location made on main line. Rock was found at 305 ft. and quartz at 305 ft.

analysis of water from this well No. 1. It is not as hard and gallons to make suitable for 10 imperial gallons per hour.

The casing varies from ten inches to twelve inches at the bottom of well.

*Engine House and Machine Shop.*—It was well on in June before the Forest City Paving Co. again started work on their contract for these buildings. The weather during May and early part of June was very cold and backward. On May 28th, there was a snowfall at Englehart of about nine inches.

*Grading.*—All grading, ballasting and drainage was done by A. R. Macdonell under the supervision of the engineer.

**Cattle Pen.**—A cattle pen 30 ft. long, 10 ft. wide, etc.

BRJ

Our regular bridge gang was  
pairs and keeping the numerous trees  
At the following points permanent  
and the track ballasted over the

Mile.

523

On all open culverts between N  
permanent ballasted decks.



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2nd floor

1905

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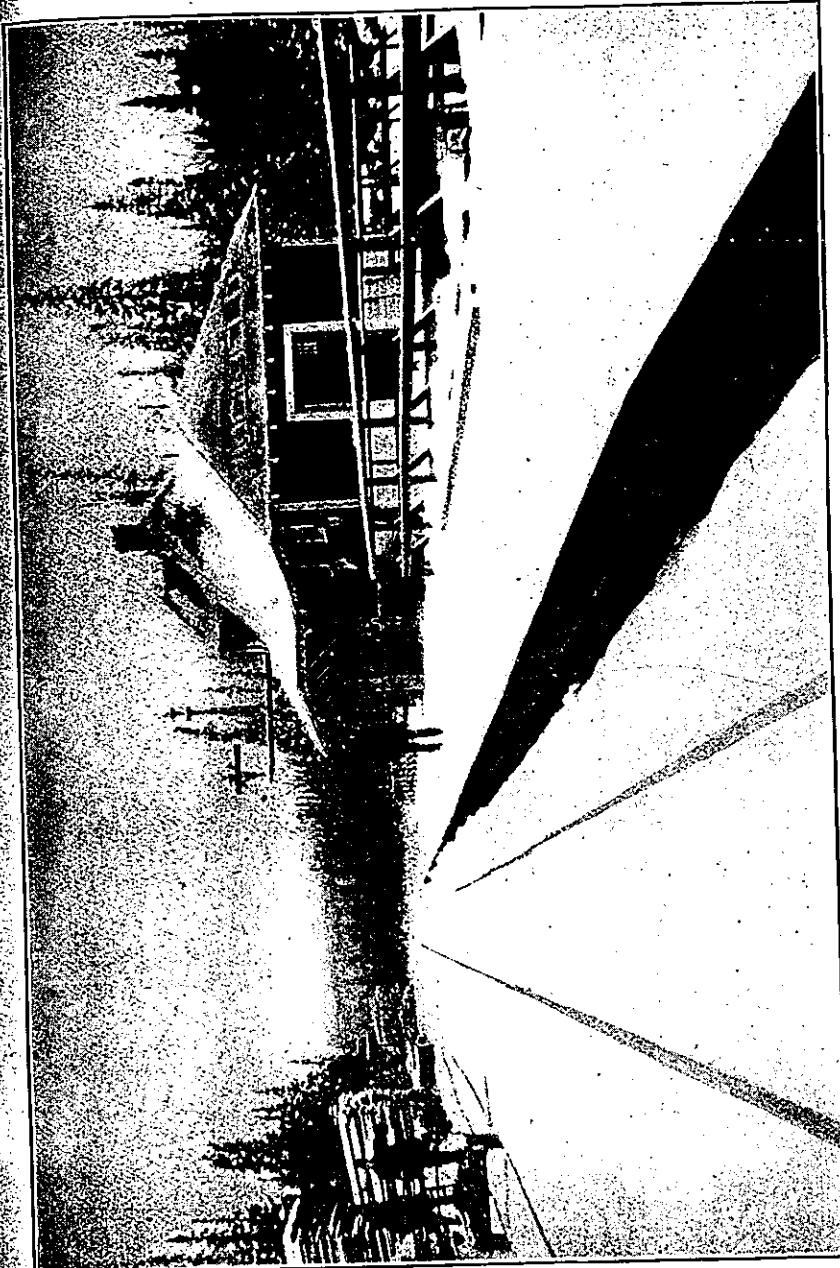
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Station at Widdifield.

1905



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2nd floor



Station at Tenagami.



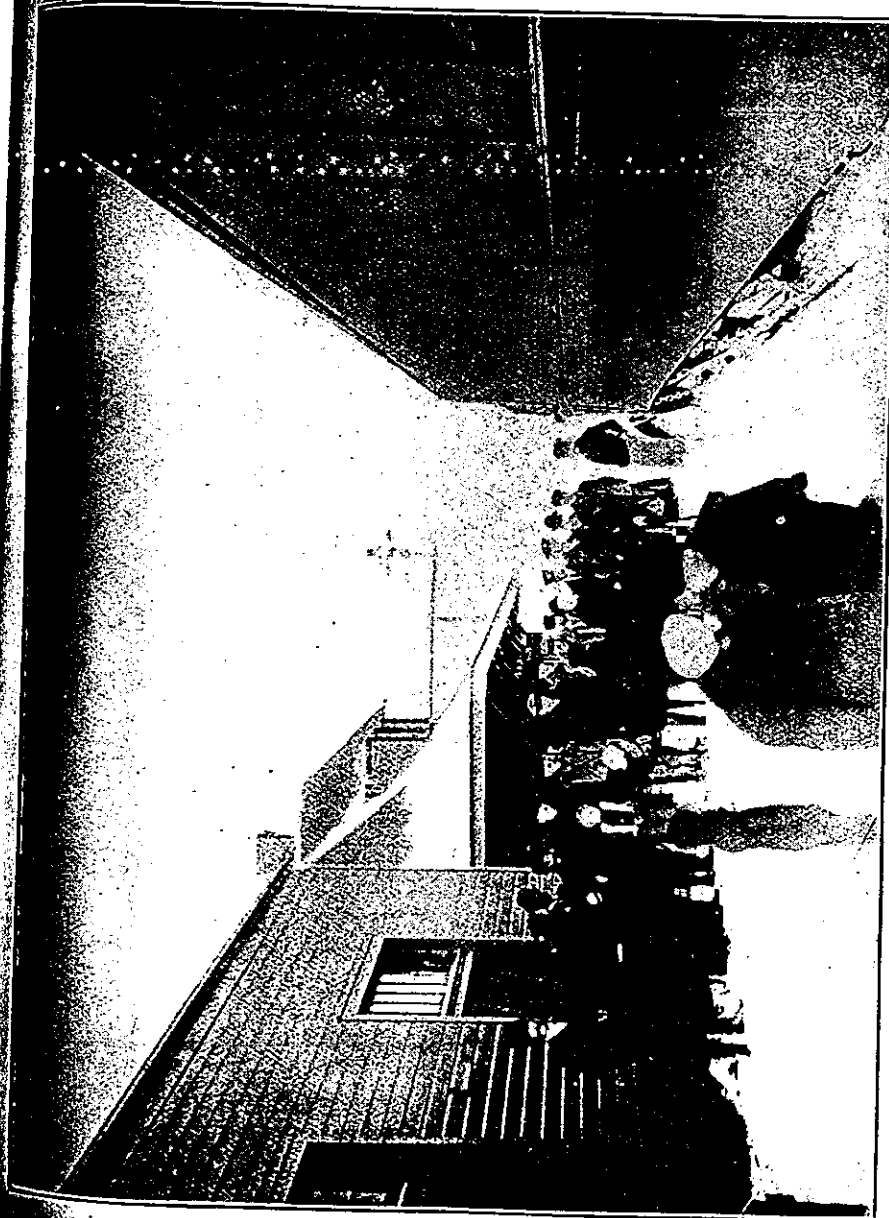
## LOCATION GUIDE

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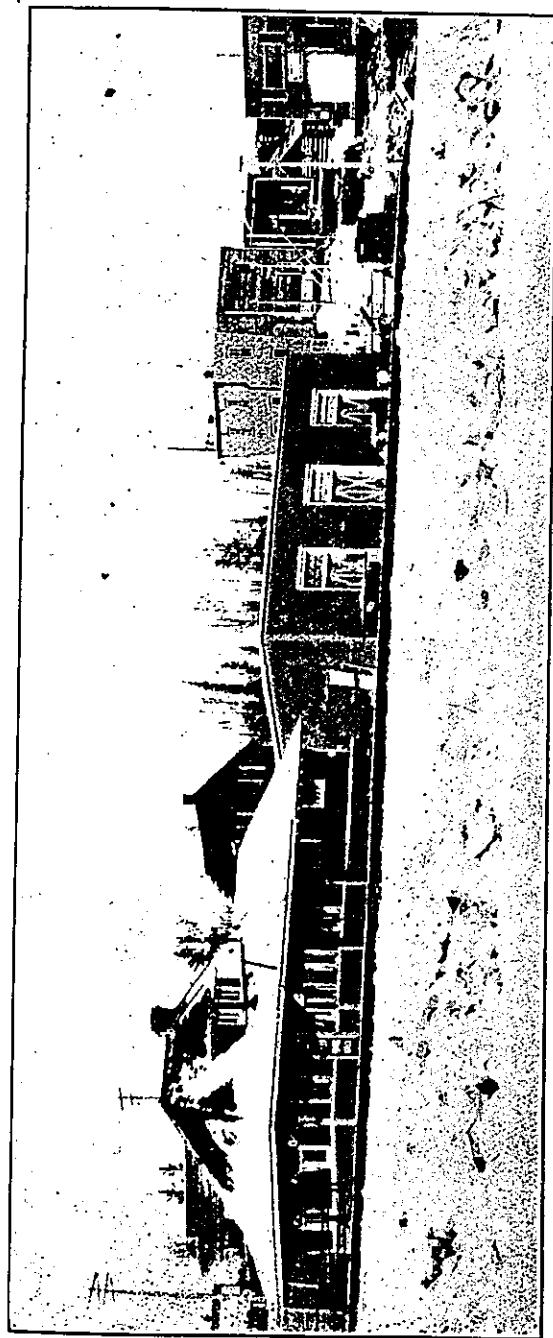
Station at Latchford.



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Station at Cobalt.

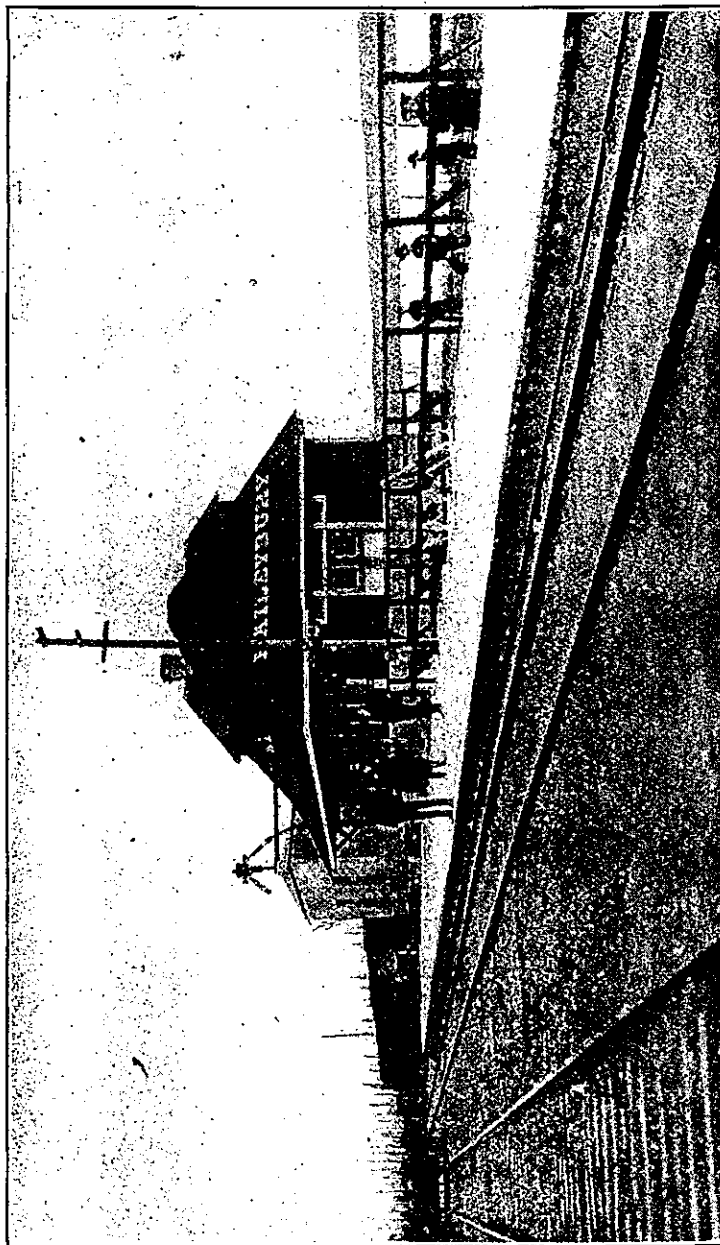


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Station at Haileybury.

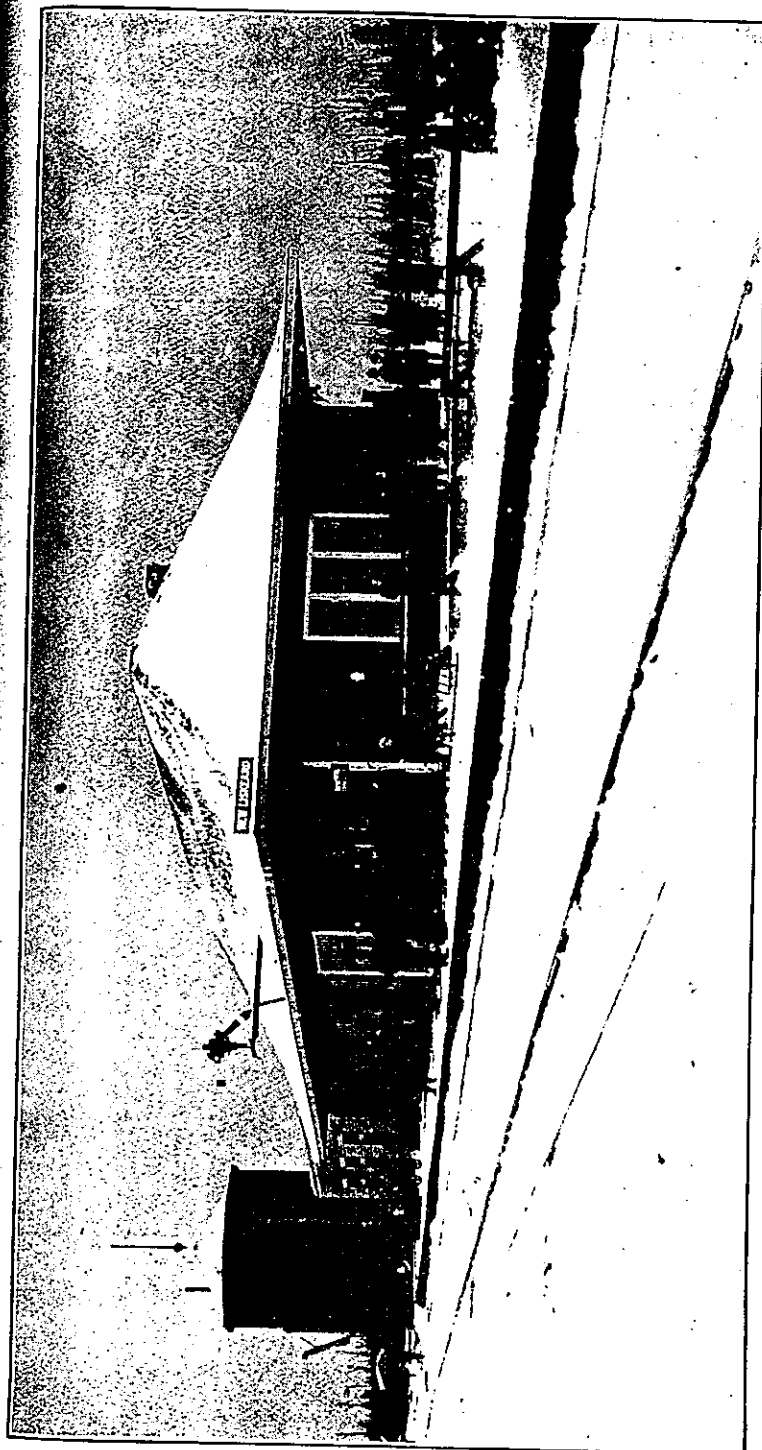


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# LOCATIONS

Bibliography



Station at New Liskeard

## CHIEF ENGINEER'S REPORT.

NORTH BAY, Jan. 24th, 1906.

H. W. PEARSON, Esq.,  
Secretary-Treasurer, Toronto.

DEAR SIR,—I beg to present herewith my annual report for the year ending December 31st, 1905.

## DIVISION No. 1.

*Roadbed Construction.*—A. R. Macdonnell, Contractor.

*Trestle Filling.*—As soon as the frost left the ground the contractors began filling in the temporary trestles of which there were a great number. This work has been completed with the exception of the trestle at the 6th mile, which is at present being proceeded with.

A short permanent trestle at mileage 83½ will, on account of the poor holding bottom, be filled in before the contractors finish their work.

*Ballasting.*—Ballasting was started about July 1st and completed about the middle of November. This took more material than was anticipated on account of sink holes developing through the muskeg country south of Redwater, and the necessity of widening many narrow banks.

All sink holes were filled without accident and with slight delay to traffic.

This whole division has now received two lifts of ballast and the roadbed is of a solid, durable nature.

A large amount of filling was necessary around the stations at Haileybury and Cobalt to provide suitable unloading facilities. This was done by the contractors.

*Fencing.*—Fencing was built from mile 104 to mile 101 through the Cobalt region, and the fencing previously built was put in thorough repair.

*Building Construction.*—O'Boyle Bros., Contractors.

The following stations were completed and opened for traffic during the season: Haileybury, Cobalt, Latchford, Temagami.

Section houses were built at the following points: Widdifield, Bushnell, Mulock, Redwater (2), Moose Lake, Doherty, Riddle, Temagami, Otter, Latchford, Cobalt.

*Telephone Construction.*—Wyse & Middlemist, Contractors.

Under contract with Wyse & Middlemist, of Toronto, to construct a four copper wire telephone line from North Bay to Temagami, and one of two wires from this point to New Liskeard. The line has been built to the 20th mile from North Bay, and the cross arms have been placed as far as the 47th mile. Telephones have been installed in the stations at North Bay Junction and Widdifield.

*Construction by Employees of the Commission.*—Buildings and sidings.

*Haileybury.*—At Haileybury a through siding was laid behind the station to give unloading accommodation to the people of that town. This siding is capable of holding twenty-six (26) cars.

A freight shed 30 ft. x 40 ft. was built, and a station signal put in position.



When the heating system of the station was used early in the season some slight changes were found necessary in order to make it work satisfactorily.

**Argentite.**—At Argentite, mile 105½, a through siding to hold ten cars (10) was built on the east side of the track to accommodate the mine owners in the Kerr Lake district.

**Cobalt.**—At Cobalt a freight shed with the necessary platforms was provided, 30 ft. x 60 ft.

A through siding was built behind the station and freight shed to accommodate local traffic. This gives siding room for about eighteen cars (18). The building of this siding necessitated considerable rock excavation, but the congested state of traffic at this point made this construction absolutely necessary.

Some slight alterations in the interior arrangements of the station was made to provide additional office room.

A furnace room was provided below the floor so as to give more waiting room accommodation.

A station signal was provided and erected.

**Gillies.**—At Gillies Depot sidings to hold twenty-eight (28) cars have been built on the usual siding agreement.

**Latchford.**—At Latchford a freight shed 30 ft. x 40 ft., with necessary platforms was provided. A coal bin 12 ft. x 24 ft. was built.

A station signal was erected.

The water service was put into operation, the water being pumped from the Montreal River about 250 feet distant.

Sidings to the total length of 3,658 feet have been built on the usual siding agreement to accommodate the large saw mill of the Empire Lumber Company.

A siding was also put in just south of the Montreal River crossing for Salmon Brothers saw mill. It is 803 feet long, and was also built under the usual siding agreement.

**Johnson.**—At Johnson a section house similar to those built by the contractors was provided.

**Rib Lake.**—At Rib Lake a section house similar to that at Johnson was put up.

**Smallman.** At Smallman, mile 81½, a siding to hold six cars was put in to accommodate mine owners in the neighborhood. This was built on the usual siding agreement.

**Temagami.**—At Temagami the station was extended twenty feet northward to enlarge the restaurant, and the necessary changes made in the heating apparatus.

A station signal was placed in position.

A freight shed 30 ft. x 40 ft. was provided and a coal bin 12 ft. x 24 ft. built.

The water service was put in working order, pumping from Lake Temagami.

A cross over was put in between the through siding and the main line.

**Redwater.**—At Redwater a coal bin 12 ft. x 24 ft. was provided.

**Dover.**—At Dover, 40th mile, a through siding was built to hold fifty-six cars. At this place, under agreement with the Commission, the Cleveland and Sarnia Lumber Co. built about six miles of track into their lumber mill, and at the main line built a "Y" connecting with our through siding.

**Jocko.**—At Jocko a freight platform 12 ft. x 40 ft. was provided.

Sidings to hold sixteen (16) cars were built for Mason and Gordon, and to hold thirty (30) cars built for Munro and Coxford.

N. O.

*Mile 28.*—At Mile 28 a siding to hold 19 cars was built under the usual siding agreement for Ferguson and McFadden.

*Moose Lake.*—At Moose Lake a combined open and closed shelter station was built and the tank pumping apparatus put in first-class order. A coal bin 12 ft. x 24 ft. was provided.

*Mile 20 1-2.*—At mile 20½ a siding to hold twenty-three (23) cars was built under the usual siding agreement for Messrs. Graham and Ferguson.

*Widdifield.*—At Widdifield some slight alterations were made in the station and heating apparatus.

A coal bin 12 ft. x 24 ft. was built, and the station signal placed in position.

*Trout Mills.*—At Trout Mills a shelter station with platforms was built.

*Mile 2 1-2.*—At mile 2½ a siding to hold eight (8) cars was built under the usual siding agreement to accommodate McLean's saw mill.

*North Bay Junction.*—At North Bay Junction the following building operations were completed:

Station and store-house, a building 30 ft. x 60 ft. was raised one story to give increased store room and office accommodation; roadmaster's store-house, 20 ft. x 40 ft.; coal shed, 20 ft. x 120 ft.; coal bins (under platform) 35 ft. x 40 ft.; oil house, 18 ft. x 30 ft.; lime and cement storehouse, 12 ft. x 30 ft.; lumber shed, 20 ft. x 30 ft.; locomotive shop, 52 ft. x 152 ft.; boiler house, 15 ft. x 38 ft.; blacksmith shop, 18 ft. x 27 ft.; carpenter shop, 60 ft. x 75 ft.; carpenter shop, addition, 16 ft. x ft.

The following are in course of erection: Standard water tank, with 40,000 gals. Tub.; 2 coal docks, each 16 ft. x 112 ft.

The following equipment has been installed in connection with the locomotive shop: 60 h.p. boiler, 50 h.p. engine, planer, drill, shaper, 2 lathes, grind stone, emery wheels, small dynamo for lighting purposes.

Heating coils have been installed in the machine shop end, and the blacksmith's forges in the blacksmith shop.

A foundation has been built for the large wheel lathe recently purchased.

The following wood working machinery has been installed in the carpenter shop: Buzz planer, band saw, matcher, boring machine, saw machine.

1,287 feet of additional sidings were laid in connection with yard improvements.

To supply water to the tank a 12x12 well has been sunk.

Below will be found a summary of the work done in the shops here in connection with general road and equipment.

15 section tool houses, 10 ft. x 14 ft. were built, shipped out in knock-down condition and erected on the different sections.

Outhouses to the number of 24 were finished, loaded on cars and placed along the line in connection with the different stations and section houses.

41 yard limit boards were made and placed where required.

215 signals for snow-plows and flangers were also made and distributed.

Many articles of station furniture, such as tables, cupboards, etc., were manufactured for the different stations.

*Rebuilding Telegraph Line.*—The telegraph line was found to be of poor character that it had to be completely rebuilt. New poles were put where required, and the whole line well braced. In addition to this a section of telegraph wire was strung. It required two gangs the best part of the season to complete this work. In connection with this much slashing of trees had to fall upon the wires was done. Up to the present about 22 miles of slashing has been completed, and the worst trees cut down over the division.

*Clearing.*—The bush near all stations, section houses, tanks, etc., was cut down and the ground well burned to prevent the possibility of forest fires spreading and damaging the buildings.

*Rock Cuttings.*—Considerable work has been done taking down loose rock from rock cuts, and where necessary knocking off small points to give a clearance from the nearest rail of 6 feet. This work has been completed over 60 miles of the division.

*Public Road Crossings.*—21 public road crossings at rail level were properly guarded and the necessary cattle guards, signs, fences and drains provided. The following is a list of the mileages:

At North Bay Jct.	Through the Yard.
$\frac{1}{8}$ mile	18 $\frac{3}{4}$
1st "	103 $\frac{1}{2}$
2 $\frac{1}{2}$ "	106 $\frac{1}{4}$
3 $\frac{1}{2}$ "	107 $\frac{1}{2}$
4 $\frac{1}{2}$ "	110 $\frac{1}{2}$
6 $\frac{1}{2}$ "	111
8 $\frac{1}{2}$ "	111 $\frac{1}{2}$
10 $\frac{1}{2}$ "	112
12 $\frac{3}{4}$ "	112 $\frac{1}{8}$
14 $\frac{1}{2}$ "	112 $\frac{3}{4}$

*Private Road Crossings.*—31 private crossings were properly guarded, being placed and the necessary drainage provided along the railway ditches.

The work of properly grading and draining these road crossings has been in many cases very heavy. Few were properly formed at the time of construction. Through the clay country south of New Liskeard long approaches were in some cases needed, and proper fences had to be erected on each side of these approaches.

*Bridges.*—On account of the pile driving done on this division being of a very inferior character a large bridge gang was constantly employed this summer shimming up and making repairs, which should have been unnecessary so soon after construction.

At mile 45 $\frac{1}{2}$  the long low pile trestle was cut down, and the bank is now carried by a light gravel bank on heavy cross laying.

At mile 35 $\frac{1}{2}$  an additional 8 feet opening was provided, and a top of white pine put on the whole structure.

At mile 30 $\frac{1}{2}$  where at the time of construction a solid bank was built across a small creek, an opening is now being made to permit the floating of logs from Moose Lake into Jocko Lake.

*Culverts.*—Solid concrete steel tops were put on four of the small open culverts in the track; the steel for the balance is on hand and the tops will be put on next season. Those completed are at mileages 41, 44, 46 $\frac{1}{2}$  and 47.

On account of the bank sliding at Dickson's Creek the large culvert had to be extended in both directions in wood. To the east 84 feet and to the west 53 feet.

The following openings were provided under the track at the points named: Mile  $\frac{1}{2}$ , 10 inch vitrified pipe; mile  $\frac{3}{4}$ , 12 inch vitrified pipe; mile 39 $\frac{1}{2}$ , 3x4 cedar culvert; mile 111 $\frac{1}{2}$ , 3x3 cedar culvert.

At mile 110 $\frac{1}{2}$  a culvert 3 ft. x 4 ft. x 200 ft. long was built along the west side of track to prevent ditch becoming closed by sliding banks.

*Track.*—The following work has been done in addition to the general track maintenance, ditching, etc.

1905

All switch stands, targets and connecting rods have been straightened and painted.

All main line switches have been supplied with lamps.

When the track was laid the guard rails were merely spiked. They have been strengthened by the insertion of three cast iron blocks and the whole securely bolted.

All curves over 4 degrees have been strengthened by the use of pressed steel rail braces.

*Surveys, etc.*—At New Liskeard two lines were located to the water front in the town, one started just north of the station and curved to the right, following the valley of the Wabis River to the docks on the south shore below the bridge. The other started south of the station and ran down through the south part of the town coming to the river side near its mouth.

*Mile Post 109.*—A line was located from this point to the shore of Lake Temiskaming near the stone wharf. This line gave heavier grades and more expensive work.

*Cobalt.*—At Cobalt a branch about three miles long was surveyed into the Kerr Lake mining region.

*Mile Post 88.*—From mile post 88 a line was surveyed to the Fountain Falls on the Montreal River. This was rather an expensive line, about 10 miles long with heavy grades.

*Diver.*—At Diver some time was spent by a Locating Party getting the best line into the timber limits of the Cleveland and Sarnia Lumber Co. The total length of this line as built is about 6 miles.

*Mile 98.*—From mile 98 a complete traverse was made of the Montreal River to a point about three miles below the Fountain Falls. The river was gauged to determine the flow, and the water powers at Hound Chute, Rags Chute and Fountain Falls carefully investigated.

*Townsites.*—A party was employed almost constantly during the summer at townsite work, principally at Cobalt. A complete contour survey of the place was first made to enable the town to be laid out in the proper manner so that the streets could be placed to suit the topography. On account of the limited space at our disposal this method had later to be abandoned and the streets made parallel and at right angles to the mining location boundaries.

*Track Centres, etc.*—During the summer months a large engineering force was employed giving track centres and grades, cross-sectioning, ball pits, etc., etc.

## SECOND DIVISION.

*Roadbed Construction.*—A. R. MacDonnell, Contractor.

The grading is practically completed to the 75th mile from New Liskeard, with the exception of the clay cutting known as Swanson's Cutting about the 37th mile, and that cutting about the 17th mile which, during the past season, was largely removed by steam shovel. Swanson's Cutting is of such a soft nature that it was found advisable to lay the track around it, and the work of removing it by steam shovel will be started at once. A few other cuts not yet quite completed will be finished before the rails reach them. A good many banks that were originally built narrow will require to be widened next season.

The last 25 miles on this 100 mile contract is being cleared, some grading started and preparations being made to push it to completion next season.

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1905

*Ballast.*—A ballast pit purchased by the Commission from J. M. Wallace  
opened at Earlton and the worst spots in the track between New Lis-  
ard and mile 33 were picked up.

The ballasting of the one and one-half mile branch into this pit is com-  
pleted and all necessary plant in position, so that the ballasting can be con-  
tinued as soon as the frost leaves the ground, and rapidly pushed to com-  
pletion.

*Track Laying.*—The rails are laid to Boston Creek about mile 41, and  
large timber trestle at this point is being built. A forest fire in July con-  
sumed the timber that had been gotten out for this structure, so that this  
present delay in building the trestle is unavoidable.

*Sidings.*—Sidings have been put in at the following points: Uno Parks,  
Thornloe, Earlton, Heaslip, Blanche River, 1st crossing, Charlton, Blanche  
River, 2nd crossing.

*Fencing.*—The right of way has been fenced from New Liskeard to the  
3rd mile at the second crossing of the Blanche River.

*Blanche River Bridges.*—Dominion Bridge Co., Contractors.

The Blanche River bridges, one at the 25th mile and the other at the  
3rd mile, have been erected and completed, except painting, which was left  
over until next season.

*Building Construction.*—O'Boyle Bros, Contractors.

The station at New Liskeard was completed early in the season and  
turned over to the Traffic Department on the first division.

*Construction Work by Employees of the Commission:*

*New Liskeard.*—At New Liskeard the station was sheeted over the plaster  
with hard pine and the heating apparatus put into working order.

A freight shed 30 ft. x 60 ft. was built.

A siding to hold nineteen (19) cars was built behind the station to accom-  
modate local traffic.

A well 12 ft. x 15 ft. was sunk near the tank, and the tank put in proper  
working order.

A temporary engine shelter 32 ft. x 150 ft. was built to afford protection  
to engines in bad weather, and 1,371 feet of sidings laid in connection there-  
with.

*Uno Park.*—At Uno Park a foundation has been built for the station.

*Earlton.*—At Earlton a station foundation has been built similar to that  
at Uno Park.

*Telegraph Line.*—Some repairs were made on the telegraph line and a  
second wire strung, so that we now have direct connection from North Bay  
to White River.

*Tie Inspection.*—A complete re-inspection was made of all the ties sup-  
plied by T. Wallace & Son, on their last contract. The result showed that  
many ties were originally taken that did not conform to the specification.  
The contractors were paid on the basis of the second inspection. They  
brought action in the courts, but were non-suited at North Bay on Novem-  
ber 21st.

*Location.*—The line is located to a point on the Black River, about 105  
miles from New Liskeard. The maximum grade is .4 rising coming south,  
and .5 rising going north. The maximum curve is 4 degrees.

A trial line following the general course of the Abitibi River has been  
run 35 miles farther. One party is now locating from the south end of this  
line, and a second party has gone to the region where the Trans-continental  
crosses the country between the Frederick House and Abitibi Rivers.

1905

They will locate south on the best route to be found. This part of the line will be nearly all in clay, and of fairly light construction. Forest fires burned out our location party twice during the season, the last time in July, the cache at McDougall's chute containing provisions valued at about \$2,000.00 was consumed, and the men escaped only with their instruments and the clothes they wore.

*Exploration to James Bay.*—Starting about July 1st an exploration party in charge of Mr. E. A. E. Sullivan, of Ottawa, as engineer, and accompanied by a geologist and timberman, went to James Bay by the Abitibi River, and made an exploration to get a general idea of the country, as well as to ascertain the probable facility with which a railway could be built.

I enclose herewith reports from the engineer and geologist.

The plans that were made of the estuaries of the Moose and Albany Rivers show water varying in depth from 5 to 20 feet, but the depths are so irregular that a very large amount of dredging would be required to make a satisfactory channel for vessels.

The timber through the country traversed by the party was as a rule small. From the junction of the Black and Abitibi Rivers to within one-half mile of Iroquois Falls it consisted chiefly of spruce and balsam, averaging 7 inches in diameter and giving about 9 cords of pulpwood per acre. This runs from the river only about 300 feet. It then becomes smaller and would only average about 50 per cent. of that next the river.

From Iroquois Falls 4 miles north the timber is larger with more poplar. This would average 13 inches diameter, giving 16 cords pulpwood per acre. This continues about three-quarter mile wide. It is small and scrubby farther inland. From this point to the foot of Limestone Falls the timber is practically all spruce and poplar mixed with small balsam. It would average about 9 cords of pulpwood per acre. This is from 300 to 100 feet wide along the river bank.

From Limestone Falls to the coast the timber becomes smaller, with some poplar, and averages about 5 cords of pulpwood per acre, and extends only from the river inland from 200 to 500 feet.

Some small white birch was seen along the route, but no other hard wood.

Any tamarac in the country is worm killed.

The party returned by way of Missanabie on the 19th of October. Coming across the height of land there was a snow fall of 5 inches.

Yours truly,

G. A. MCCARTHY,  
Chief Engineer.

#### ENGINEER'S REPORT OF EXPLORATION SURVEY TO JAMES BAY

SIR,—I have the honour to submit the following report on the exploration for a line of railway in the vicinity of the Abitibi River, from its junction with the Black River down to the Moose River, and thence to James Bay, and also the Harbour facilities to be had at the Moose and Albany Rivers. From instructions received by wire from the Commission in Toronto, I reported to you at North Bay on July 3rd, and after being delayed there for a week in order to procure men I went by way of New Liskeard to North Temiskaming and then across the long portage known as the Quinze to Klocks Depot, where I found my supplies and outfit awaiting me, having previously sent them under the charge of Mr. Wilson, the Geologist of the

# REPORT OF ARTHUR A. ALLAN, MASTER MECHANIC OF TEMISKAMING AND NORTHERN ONTARIO RAILWAY.

## MOTIVE POWER AND CAR DEPARTMENT, ANNUAL REPORT 1906.

*New Locomotives.* During the year 1906 the following new locomotives have been added to the motive power equipment of this road:

Four locomotives, Numbers 105, 106, 107 and 108, built by Canadian Locomotive Works, Kingston, Ont. Were received in March and are of the ten-wheeled type cylinders 19 inches in diameter, 24-inch stroke. Diameters of drivers of first two engines 56 inches, and second two 62 inches, total weight of engine and tender in working order, 229,000 lbs. They have been used mostly in freight trains.

Four locomotives, numbers 111, 112, 113 and 114, were built by The Locomotive and Machine Company of Montreal. These engines are also of ten-wheeled class with cylinders 19 in. x 24 in.; diameter of drivers, 62 inches. Total weight of engine and tender in working order, 262,570 lbs. They were received in June and have been used mostly in passenger service.

Two six-wheeled switching engines were received from the Canadian Locomotive Works, Kingston, Ont., in November. These have cylinders 19 in. x 26 in., and drivers 50 inches in diameter. Total weight of engine and tender in working order, 213,000 lbs. These engines are Numbers 150 and 151.

*Locomotive Mileage.* During the year 1906 the following engines belonging to this railroad have run the mileages as shewn below:

Engine No.	Miles, 1906.	Total Mileage of Engines.
101	34,807	83,529
102	21,868	69,933
103	21,003	70,888
104	36,452	85,914
105	19,966	19,966
106	20,095	20,095
107	19,564	19,564
108	26,416	26,416
109	31,089	40,875
110	25,356	35,521
111	16,948	16,948
112	22,098	22,098
113	14,606	14,606
114	15,193	15,193

*Engine Despatch.* The following is a statement shewing the number of engines despatched from the different terminal points during the year:

Terminal Station.	Number of engines despatched.
North Bay .....	1,037
New Liskeard .....	1,414
Englehart .....	92

*Repairs and Renewals to Locomotives.* During the year the locomotive equipment has been maintained in a proper manner. The repairs and renewals necessary from time to time have been executed thereon.

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Engine 101 has received a general repair, driving tires have been turned, engine equipped with steam and repainted.

Engine 102 has been given general repair, has had driving tires turned, 63 tubes renewed in boiler, air signal and steam heat applied, and engine and tender repainted.

Engine 103 has had general repair, driving tires have been turned, air signal equipment and steam heat applied, new cab, and engine and tender repainted.

Engine 104 has been given light repair.

Engine 105 has received heavy repair, driving tires turned, engine and tender painted.

Engine 106 has undergone heavy repairs, driving tires turned and engine and tender painted.

Engine 107 has been given heavy repair, driving tires turned, and engine and tender repainted.

Engine 108 has received heavy repair, driving tires turned, engine and tender painted.

Engine 109 had necessary running repairs and maintained in efficient condition.

Engine 110; has not been necessary to have this engine in the shop for general overhauling during the year, but necessary running repairs have been sufficient for proper maintenance in service. This engine has been equipped with pilot and head lamp on rear of tender, being engaged in passenger service on the run between Latchford and New Liskeard. This engine has also been equipped with four pairs of new tender wheels and axles.

Engines 101 and 104 have been equipped with rapid unloader apparatus for ballast train service.

The following material has been manufactured for repairs and renewals of locomotives:

Two new engine cabs, one applied to engine 103, which was damaged by fire, the other kept for spare. Five new engine pilots completed, also twelve new tool boxes, for use on engines.

Each engine has had boiler washed out once every two weeks when in regular service. Stay bolts in fire boxes have been regularly tested every three months, and renewals have been made where necessary.

Nettings, ash pans and dampers have been regularly examined at end of each trip during the summer season as a precaution against fire. During the damp weather and at such times as the danger from this source would be reduced to a minimum, nettings, ash pans and dampers have been examined twice a week.

During the year 112 couplers have been received and applied to engines and cars. Twelve pairs of cast iron truck wheels and four pairs steel-tired wheels have been received for this service.

*New Coaches.* Seven new first-class coaches, Nos. 103, 104, 105, 106, 107, 108, and 109, have been received and put into service. There are at present four more coaches of this class under construction by Crossen Car Company of Cobourg, Ont. Will be numbered 110, 111, 112 and 113.

Four second-class cars have been purchased (second hand) from Hicks Company, Chicago, Ill., Nos. 16, 18, 20 and 22.

Three new workmen's cars have been received and put into service, Nos.



*Repairs to Coaches.* Repaired seven passenger coaches, 100, 101, 102, 12, 4, 6 and 8, having painted same and turned coach tires.

Have built three sets of steps and six step-ladders for coaches.

Have given heavy repairs to three baggage cars, Nos. 1, 3 and 5. Car 1 has had four pairs of tires turned, and car 5 has three pairs.

*New Baggage Cars.* Five new baggage cars have been received from the Crossen Car Company of Cobourg, Ont., and placed in service. Numbers 9, 11, 13 and 15. One second-hand baggage car, No. 17, has been purchased from Hicks Company of Chicago.

*New Cars.* Twenty-five new flat have been received from Rhodes, Irby & Co., Amherst, Nova Scotia, August, 1906.

Have seventy-five new flat cars now under construction by Rathbun Company of Deseronto, Ont.

*New Conductors' Vans.* Have received and put into service seven new conductors' vans, Nos. 52, 53, 54, 55, 56, 57 and 58.

*Repairs to Vans.* Have repaired and repainted vans 50 and 51.

*Freight Cars.* Have rebuilt T. & N. O. flat car 60,051, new sills, etc. Have converted 25 box cars into boarding cars for Construction Department.

Eight pairs of hose bag racks for baggage cars and vans for carrying air brake and steam heater hose, and six fusee racks for vans have been applied.

*Steam Shovel.* Have received one new "Victor" steam shovel manufactured by Toledo Foundry and Machine Company, Toledo, Ohio, April, 1906.

*Rapid Unloader.* During April, 1906, received one second-hand rapid loader from F. H. Hopkins Company, Montreal, Que.

*Steam Wrecking Crane.* Have received from Industrial Works of Bay City, Michigan, one new steam wrecking crane for heavy lifting, clearing docks, etc.

*Auxiliary Equipment.* In addition to steam wrecking crane auxiliary equipment has been fitted up and is maintained ready for service.

*Repairs to Flangers and Snow Plows.* Have repaired snow plows No. 1 and 2, equipped them for winter service. Flangers No. 1 and 2 have been repaired. Charges for repairs to snow plow No. 2 have been made against Contractor Mr. A. R. MacDonnell, New Liskeard, Ontario, as damage occurred to plow while in service in construction of the line.

*Car "Temagami."* One map rack supplied for Official Car "Temagami." Also new cabinet in kitchen. Car repaired, cleaned and repainted.

*Car "Abitibi."* New draft timbers, sills and steps. Car repainted and varnished, inside pipes gilded.

*New Machinery.* The following new machinery has been received and installed during the year:

One 36 in. lathe from McGregor, Gourlay Co., Galt.

One driving wheel lathe from John Bertram and Sons Co., Dundas, Ontario.

One sand drier complete.

One single head bolt cutter from John Bertram and Sons Co., Dundas, Ontario.

*Shop Equipment, Repairs and Renewals.* Have made repairs to six wheel barrows. Machine shop and carpenter shop have equipped with

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new coal chute  
painted one tin

*Pattern M.*  
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*Stores Dep*  
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springs. New water tank constructed at North Bay Junction shops. Temporary coal dock also been placed at the shop for coaling locomotives. (new coal chute in course of construction at North Bay shop. Made and painted one time check board for use Locomotive Foreman's office.

*Pattern Making and System of Numbering.* Necessary patterns have been made from time to time for repairs and renewals of different parts locomotives, cars, and other equipment, by the St. Thomas Brass Co., Thomas, Ontario, and the Nipissing Foundry and Machine Co., North Bay, Ontario. Patterns are now being made at shops of this Company at North Bay Junction at reduced expense. All patterns are the property of the Temiskaming and Northern Ontario Railway, and proper record is kept of the location of same.

Proper system of numbering all patterns and classifying has been adopted.

*Stores Department.* Have supplied six fire pails, four water barrels and one ladder, and painted same for use of Stores Department.

Have fitted up car 60,180 with shelving, bins, etc., to be used as store car in delivering material to various stations.

*Bridge and Building Department and Transportation Department.* Have rebuilt two baggage trucks for Latchford and Cobalt stations. Supplied forty new ladders for use of stations and seven train boards of sheet iron. Fifteen sets of crossing signs, and 150 mileage boards.

*General Offices.* Windows frosted and painted in General Offices, Ferguson Block, North Bay, doors, etc., lettered. Six new desks, one blotting print cabinet for offices at North Bay Shop. Two desks repaired, one new counter.

*Road Department.* Have built fourteen hand push cars for use of section men in Road Department work. Have built eight new hand cars for use of road construction departments. Fitted up forty flat cars for ballast train service, equipping same with aprons, hinges, etc., for use with rapid unloader, and gravel plows. Have made necessary repairs from time to time on gravel plows, rapid unloader, etc. Have completed 150 snow plow boards.

*Work Done and Repairs made for Outside Companies and Firms.* Have made repairs to one locomotive belonging to Cleveland-Sarnia Saw Mill Company of Sarnia, Ontario. Putting new false bridge in cylinder. Have turned two sets of driving wheels, and six pairs of coach wheels for A. R. MacDonnell, Contractor. Have made necessary repairs to one concrete mixer for Forest City Paving Co., who have contract for new round house, &c., at North Bay. Accounts have been rendered to cover.

Have loaned steam wrecking crane, and engineer in charge on necessary occasions to A. R. MacDonnell, Contractor, New Liskeard, for use on construction work, for which charges have been made and accounts rendered.

Have put in one pair of cast iron truck wheels for locomotive No. 1 belonging to Canada Construction Company. Account rendered.

*Repairs to Foreign Cars.* Have rendered proper bills against foreign roads for repairs made to cars by this railway in accordance with Master Car Builders' Association Standard Code of Rules, governing condition of and repairs to freight cars for interchange of traffic.

*New Liskeard Engine Shed.* Water service has been installed at New Liskeard from water tank to station building.

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*Cattle Pen.*—A cattle pen 30 ft. x 40 ft. was built with necessary shutters, etc.

At the following points permanent concrete tops were put on open culverts and the track ballasted over them:—

On all open culverts between North Bay Jct., and Englehart, there are ~~new~~ permanent ballasted decks.

ated permanent timber trestle bridge  
branch of Wabis River, mile 115.  
loaded, original ground moved  
fit for traffic. It was decided at  
on concrete pedestals supported  
Campbell of Englehart, for all  
tions, driving piles, and building  
s work was completed in August

into, have contract for steel  
place complete on August 30th

, mile 146, the weight of  
ment to move bodily forward  
The wing walls were cracked  
coming in contact with  
was decided to unload abutment  
trestle. Trestle that was in place  
gravel filling, was found in good condition

ment was unloaded no sign of movement has been observed.  
The Wild Goose, permanent trestle, mile 197, an 84 ft. Howe  
bridge, resting upon timber bent abutments was placed in position  
takes place of temporary trestle built across stream during construction.

#### STATIONS AND STATION GROUNDS.

*North Bay Jct.*—An extension 12 x 18 was made to present station  
provide room for Bridge and Building Department and give more  
ation to Station Agent.

*Diver.*—Under contract the O'Boyle Bros., Construction Co.  
a station 20 ft. x 60 ft. with platform 12 ft. x 160 ft.

*Redwater.*—A similar station and platform was built here  
O'Boyle Bros., Construction Co.

*Temagami.*—The new station was completed early in the year  
station was remodelled and is now entirely used as restaurant.

Concrete station platform of 9,500 sq. ft. area was provided.

*Grey.*—One section Freight Shed 20 ft. x 30 ft. to be used  
station, with platform 12 ft. x 200 ft., is being by contract for  
mission by the Temagami Mining and Milling Co.

*Latchford.*—An extension 20 ft. x 30 ft. was made to Freight  
Station platform was extended northerly to tank, a distance  
Concrete floor was placed in Station Agent's residence.  
Standard 100 ton railway track scale was placed on siding east  
line and north of station. Concrete foundations were built by  
forces, and scales installed under supervision of Burrow, Stewart  
of Hamilton, Ont.

*Gillies.*—By contract the O'Boyle Bros., Construction Co.  
station 30 ft. x 60 ft. with necessary platform.

*Cobalt.*—By agreement McQuigge & Hunt excavated three knolls  
containing 9,009 cu. yds., lying between main line and Cobalt Lake.

General repairs were made to the station and rear portion of  
Camp Association Building was fitted up as telegraph and telephone

1907

## NORTHERN ONTARIO RAILWAY COMMISSION.

35

**North Cobalt.**—An agreement was entered into with the North Cobalt Corporation of Toronto under which station and platform, similar to that at Uno Park and Earlton, was built. This has been in use about six months, though contract is not yet quite completed.

**Haileybury.**—An extension 10 ft. x 20 ft. was made to rear of station, and five increased office accommodation.

**Matheson.**—Temporary station 25 ft. x 70 ft. with platform has been built.

Temporary engine shed to accommodate two engines and coal dock to hold a reserve supply of coal are now under construction.

Grading and tracklaying in this yard is being done by A. R. Macdonell, Contractor.

## TANKS.

With our own forces tanks were completed at mile 122 and at Englehart, and coal houses provided at these points. Foundations are of concrete resting upon piles.

The O'Boyle Bros., Construction Co., tendered upon and received contract for all other tanks required to be built during the season. They are at the following points:—North Bay Jct.; Swastika, mile 164½; Bourke's, mile 183½; Matheson, north of station, mile 206.

These tanks have been completed and the intake pipes and pumping machinery is now being installed by our Mechanical Department.

Along upper end of the line all streams from which water can be obtained are much below grade. Pump and coal houses require to be built at stream level.

## TENEMENT, SECTION AND TOOL HOUSE.

Our Bridge and Building Department improved section houses on the Division that had not already received attention. Verandahs and Kitchens, 6 ft. x 29 ft. and 12 ft. x 14 ft. respectively were provided at following points:—Widdifield, Mulock, Moose Lake, Riddle, Otter, Bushnell, Redwater (2), Doherty, Temagami, Rib Lake, Johnson.

The section house at Thornloe is completed.

The O'Boyle Bros., Construction Co., secured contract to build a three tenement dwelling house at Englehart and all section houses required during the year. These buildings are located as follows:—

Haileybury, section house frame, erected and boarded in.

Englehart, three tenement dwelling house and section house completed.

Krugerdorf ..... mile 146 section house completed.

Dane .....	"	151½	"	"
Kenogami .....	"	160	"	"
Sesikinika .....	"	168	"	"
Bourke's .....	"	176	"	"
Bourke's .....	"	183	"	"
Scotty's .....	"	188½	"	"
Ramore .....	"	195	"	"
Matheson .....	"	205*	"	"

except interior painting.

Tool houses 14 ft. x 16 ft. for use of section gangs were built at the following points:—Haileybury, Uno Park, Thornloe, Heaslip (2), Englehart (2), Matheson.

condition. When the Black River opened up steamboats and barges were used to take supplies from Macdonell's Chute to the Driftwood River, from which point they were taken overland to the headquarters camp.

The backward season caused the snow to remain on the ground later than usual. This was a disadvantage to contractors in their clearing and grading operations. The "rainy season" starting about the end of June made it almost impossible to conduct operations in the clay section. This was, therefore, temporarily abandoned and all forces sent to the Nell Lake region where formation is sand. Since October 15th good progress has been made, an average force of probably 600 workmen being employed.

In connection with this contract it was intended to use steam shovels to take out heavy cuttings around the Driftwood River. It will be necessary to take these shovels across the Watabeag bridge. If Canada Foundry Co. had let us across the bridge when they agreed to, serious delay would have been avoided.

About eight miles of grading has been completed.

#### BRANCHES.

*Kerr Lake.*—This is Branch line built to accommodate the mines of the Cobalt Camp. Trouble experienced in obtaining right of way prevented work being let until February, when contract was entered into with Messrs. McQuigge & Hunt of Arnprior for the construction of Branch leaving the main line near south end of Cobalt Lake and running southerly and easterly to boundary of the Drummond Mining Co., near shore of Kerr Lake, distance of about four miles. This line runs through one corner of "Gillies Limit," which is known to be rich in silver. After line was located and work was started it was necessary to make some slight changes in location to avoid covering by embankments some of the silver veins on the Lawson property.

Work has gone forward steadily since contract was entered into. The extremely wet season, and labor troubles among the miners of Cobalt Camp combined, caused contractors no end of trouble and delay. Men were openly hired off railway work to go to the mines. The management of all the mining properties paid more for ordinary labor than any railway contractor could afford. They thus got pick of all the men brought upon railway work. I have elsewhere in this report given an example of the movement of men on this Branch during the summer months.

The grading will be completed as far as the bay of Giroux Lake next month. The track can then be laid this far and some of the larger shipping mines accommodated. Grading will be completed to the end of the line in February next.

It is expected that a great deal of traffic in low grade ore will be secured by the building of this Branch. Our Engineer has located sidings off "Branch" on following properties:—McKinley-Darragh, Nipissing, Cobalt Contractors, Limited, Provincial Mine, Foster, Kerr Lake, Drummond. More will no doubt follow.

*Charlton Branch.*—This branch runs from Englehart in southwesterly direction to Charlton, at foot of Long Lake in Township of Dack. It was located in summer of 1906, and tenders invited in autumn of that year; but trouble in adjusting right of way matters made it impossible to let contract until well on in winter following. Tender of the Canadian Construction Co. was accepted and contract entered into.

1907

## STATEMENT OF ACCIDENTS AND PERSONAL INJURIES DURING 1907.

March 30th, Ronald McDonald struck by train No. 11, mileage 103, cutting one leg off and breaking the other in several places. Man died April 1st.

April 25th, F. J. Neff, while attempting to board down freight extra 102 at Cobalt, missed footing, fell between cars and was killed instantly.

May 27th, Patric Lecleir, killed at Cobalt by Temiscaming coal dock falling on him, while train No. 11 was switching in yard. Cause supposed to have been by vibration of engine.

May 31st, six cars on train No. 12 were derailed, mileage 4½, doing considerable damage to track and cars.

June 28th, Chas. Barrager of Tweed, Ont., passenger on passenger extra 114, south, had finger caught between vestibule of two coaches, crushing same.

July 9th, extra 106 derailed, mileage 134½, causing death of engineer Thos. Gold, and doing considerable damage to engine.

July 11th, ballast extra 101 pitched into freight extra 103 at mileage 5½, causing \$2,444 damage to rolling stock and track.

August 7th, train No. 4, engine 105, derailed M.P. 98, causing slight damage to engine and \$222 damage to track.

Nov. 13th, engine 114 left train mileage 51½ to go to Redwater for water, and on return ran into train damaging one of our steel flat cars and tender of engine.

Nov. 21st, brakeman T. D. Charlebois, while jumping off light engine 102 at Moose Lake 1.55 a.m., missed his footing and had leg jammed between platform and step of engine, breaking leg in two places, necessitating amputation above the knee.

Nov. 29th, Paul Degan, while attempting to board train No. 1 at Cobalt, after train had started, fell under wheels, cutting off both legs and badly smashing right arm above the elbow. Man died the same day.

December 9th, train No. 46 ran into A. R. Macdonell's engine which was standing foul without protection at south leg of the Wye, New Liskeard, damaging contractor's engine considerably, also damaging our engine 111 and track to some extent.

## REPORT OF WILLIAM YOUNG, GENERAL ROADMASTER.

Commencing January 1st, 1907, the road or maintenance of way department was transferred from construction to transportation or operation, thereby placing under my supervision the general roadmaster, William Young. Report of work is as follows:

## MAINTENANCE OF TRACK, 1ST DIVISION.

The track has been maintained in better surface and line during the present year than in 1906, largely on account of the new roadbed gradually become more consolidated. In order to maintain better gauge on curved track, it was found necessary to increase the number of tie plates, also to slightly increase the elevation of the outer rail to meet the required speed of trains. A number of curves remain to be treated in like manner. The

STATEMENT SHOWING SIDINGS ON T. & N. O. RAILWAY, 1ST DISTRICT, FROM  
M. P. 0 TO 138.

Location.		Description.	Remarks.
M. P.	Station.		
0	North Bay Junction	Freight house spur .....	T. & N. O. Ry.
	"	Cole's spur .....	Private.
	"	Ashpit spur .....	T. & N. O. Ry.
	"	Turntable .....	"
	"	Roundhouse .....	"
	"	Machine shop .....	"
	"	Snow plow spur .....	"
	"	Coal dump spur .....	"
	"	Coal loading spur .....	"
	"	No. 1 through .....	"
	"	" 2 coal chute spur .....	"
	"	" 3 through siding .....	"
	"	" 4 .....	"
	"	" 5 .....	"
	"	" 6 .....	"
	"	" 7 .....	"
	"	" 8 .....	"
	"	" 9 .....	"
	"	" 10 old shop spur .....	"
	"	" 11 .....	"
	"	" 12 .....	"
	"	Short transfer through .....	"
	"	Coach siding .....	"
	"	New siding .....	"
	"	Long transfer through .....	"
2½	Trout Mills .....	North Bay Lumber Co.'s spur .....	Private.
	"	Milne & Son main spur .....	"
	"	To pumping plant .....	"
	"	Short lumber spur .....	"
	"	No. 2 short spur to saw mill .....	"
	"	" 2 .....	"
	"	" 1 lumber yard through .....	"
	"	" 2 .....	"
3½	Trout Lake .....	Montreal Reduction & Smelting Co.'s siding .....	T. & N. O. Ry.
8	Ballast Pit .....	No. 1 ballast spur .....	"
	"	" 2 .....	"
	"	" 3 .....	"
8½	Woodland .....	Through siding .....	Private.
10½	"	St. Catharines Wood & Pulp Co. ....	"
11½	"	Long Lake Lumber Co.'s siding .....	T. & N. O. Ry.
13½	Widdifield .....	Through siding .....	Private.
15½	North River .....	St. Catharines Wood & Pulp Co.'s spur .....	T. & N. O. Ry.
18	Mulock .....	Through siding .....	Private.
19½	"	DeLaplante Lumber Co.'s spur .....	"
20½	"	" .....	"
23½	"	No. 1 Temagami Lumber Co.'s spur .....	"
	"	" 2 .....	"
26	"	Ferguson & McFadden and Milne & Son joint spur .....	T. & N. O. Ry.
27½	Moose Lake .....	Through siding .....	"
	"	Spur .....	"
27½	"	Ballast pit, No. 1 pit spur .....	"
	"	" 2 .....	"
28	"	Ferguson & McFadden log spur .....	"
30½	"	" .....	"
32½	Jocko .....	No. 1 log spur .....	Private.
32½	"	" 2 .....	"
34	Riddle .....	Through siding .....	T. & N. O. Ry.
37½	Osbourne .....	" .....	"
	"	Mackie Bros. spur .....	Private.
	"	Temagami Lumber Co. log spur .....	"

STATEMENT SHOWING SIDINGS  
M. P.

Location.	
M. P.	Station.
	Driver .....
	Cleveland .....
	Wye .....
	Throat .....
	Otter .....
	Bushnell .....
	Redwater .....
	Wye .....
	Ballast Pit .....
	Spur .....
	Doherty .....
	Throat .....
	Temagami .....
	Grey .....
	North .....
	Rib Lake .....
	Throat .....
	Balls .....
	Throat .....
	Gilli .....
	Boot .....
	Emp .....
	Sal .....
	Wye .....
	Emp .....
	Latchford .....
	Throat .....
	Gillies Depot .....
	Throat .....
	Cassidy .....
	Pit .....
	Err .....
	Dy .....
	Throat .....
	Kerr Lake Junction .....
	Ke .....
	Sil .....
	Mt .....
	Ch .....
	Ca .....
	Th .....
	Fr .....
	To .....
	O .....
	Ti .....
	Argentite .....
	North Cobalt .....
	Th .....
	Haileybury .....
	" .....
	" .....
	New Liskeard .....
	M .....
	N .....
	N .....



1907

MENT SHOWING SIDINGS ON T. & N. O. RAILWAY, 1ST DISTRICT, FROM  
M. P. 0 to 138.—Continued.

Location. Station.	Description.	Remarks.
Wyer	Through siding.....	T. & N. O. Ry.
"	Cleveland Sarnia Saw Mill Co.....	Private.
"	Wye and main line.....	"
Wyer	Through siding.....	T. & N. O. Ry.
Washnell	".....	"
Redwater	".....	"
"	Wye.....	"
Ballast Pit	Through siding.....	"
"	Spur.....	"
Doherty	Through siding.....	"
Temagami	".....	"
"	Spur.....	"
Grey	Temagami Mining and Milling Co.....	Private.
"	Northland Mining Co. spur.....	"
"	" short spur.....	"
Lake	Through siding.....	"
"	Ballast pit spur.....	"
Johnson	Through siding.....	"
"	Gillies Bros. Camp spur.....	"
"	Booth & Sons Dock spur.....	"
"	Empire Lumber Co.'s log spur.....	"
"	Salmon & Son saw mill spur.....	"
"	Wye.....	T. & N. O. Ry.
"	Empire Lumber Co.'s log spur.....	Private.
"	" " No. 1 lumber spur.....	"
"	" " 2 ".....	"
"	" " 3 ".....	"
"	" " lath spur.....	"
"	" " No. 1 dry kiln.....	"
"	" " 2 ".....	"
Hatchford	Through siding.....	T. & N. O. Ry.
"	" town siding.....	"
"	" weigh scale siding.....	"
Gillies Depot	Gillies Bros. depot spur.....	Private.
Cassidy	Through siding.....	T. & N. O. Ry.
" Ballast Pit	Pit spur.....	"
"	Empire Lumber Co.'s log spur.....	Private.
"	Dynamite delivery siding.....	T. & N. O. Ry.
"	Through siding.....	"
Kerr Lake Junction	Kerr Lake main line spur.....	"
"	Silver Queen spur.....	Private.
"	Muggley Concentrator spur.....	"
"	Cleveland Cobalt Manufacturing Co. spur.....	"
Cobalt	Car storage spur.....	T. & N. O. Ry.
"	Through siding.....	"
"	Freight house through siding.....	"
"	Town siding spur.....	"
"	O'Brien's spur.....	Private.
"	Timmins' spur.....	"
Argente	Through siding.....	T. & N. O. Ry.
North Cobalt	Town siding spur.....	"
"	Through siding.....	"
Halleybury	" passing siding.....	"
"	" freight house siding.....	"
"	" warehouse siding.....	"
"	McLellan's spur.....	Private.
"	New Liskeard Brick and Tile Co.....	"
W. Liskeard	No. 1 through siding.....	T. & N. O. Ry.
"	" 2 ".....	"

1907  
 T. & N. O. RAILWAY, 1ST DISTRICT, FROM  
 M. P. 0 TO 138.—Continued.

Remarks.	Location. Station.	Description.	Remarks.
& N. O. Ry. Private.	Driver	Through siding	T. & N. O. Ry. Private.
& N. O. Ry.	"	Cleveland Sarnia Saw Mill Co.	"
"	"	Wye and main line	T. & N. O. Ry.
"	Butter	Through siding	"
"	Bushnell	"	"
"	Redwater	"	"
"	"	Wye	"
"	Ballast Pit	Through siding	"
"	"	Spur	"
"	Roberty	Through siding	"
"	Temagami	"	"
"	"	Spur	"
"	Grey	Temagami Mining and Milling Co.	Private.
"	"	Northland Mining Co. spur	"
"	"	short spur	"
"	Lib Lake	Through siding	"
"	"	Ballast pit spur	"
"	Johnson	Through siding	"
"	"	Gillies Bros. Camp spur	"
"	"	Booth & Sons Dock spur	"
"	"	Empire Lumber Co.'s log spur	"
"	"	Salmon & Son saw mill spur	"
"	"	Wye	T. & N. O. Ry.
"	"	Empire Lumber Co.'s log spur	Private.
Private.	"	" " No. 1 lumber spur	"
"	"	" " " 2 "	"
"	"	" " " 3 "	"
"	"	" " lath spur	"
"	"	" " No. 1 dry kiln	"
"	"	" " " 2 "	"
"	Latchford	Through siding	T. & N. O. Ry.
"	"	" town siding	"
"	"	" weigh scale siding	"
& N. O. Ry.	Gillies Depot	Gillies Bros. depot spur	Private.
"	Cassidy	Through siding	T. & N. O. Ry.
"	Ballast Pit	Pit spur	"
Private.	"	Empire Lumber Co.'s log spur	Private.
"	"	Dynamite delivery siding	T. & N. O. Ry.
"	"	Through siding	"
& N. O. Ry.	Kerr Lake Junction	Kerr Lake main line spur	"
Private.	"	Silver Queen spur	Private.
& N. O. Ry.	"	Muggley Concentrator spur	"
Private.	"	Cleveland Cobalt Manufacturing Co. spur	"
"	Cobalt	Car storage spur	T. & N. O. Ry.
"	"	Through siding	"
"	"	Freight house through siding	"
"	"	Town siding spur	"
& N. O. Ry.	"	O'Brien's spur	Private.
"	"	Timmins' spur	"
"	Argentite	Through siding	T. & N. O. Ry.
"	North Cobalt	Town siding spur	"
"	"	Through siding	"
Private.	Haileybury	" passing siding	"
"	"	" freight house siding	"
& N. O. Ry.	"	" warehouse siding	"
Private.	"	McLellan's spur	Private.
"	"	New Liskeard Brick and Tile Co.	"
Private.	Liskeard	No. 1 through siding	T. & N. O. Ry.
"	"	" 2 "	"

1907

STATEMENT SHOWING SIDINGS ON T. & N. O. RAILWAY, 1ST DISTRICT, FROM  
M. P. 0 TO 138.—Continued.

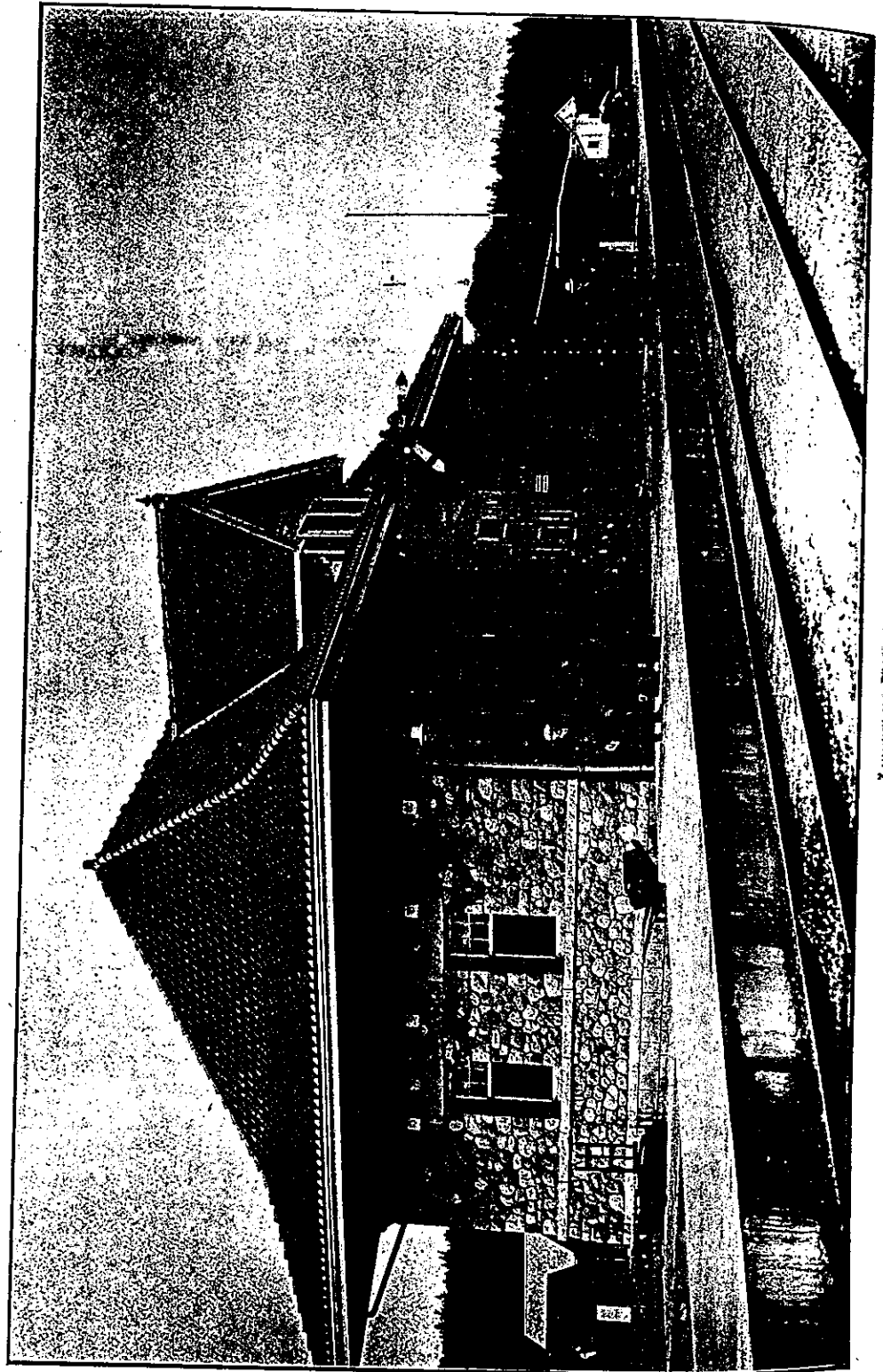
Location.		Description.	Remarks.
M. P.	Station.		
113	New Liskeard.	No. 3 through siding.	T. & N. O. R.
	"	" 4	
	"	Freight house spur.	
	"	Town siding.	
	"	No. 1 engine shed spur.	
	"	" 2	"
	"	" 3	"
113½	"	Wye.	"
	"	Coal unloading spur.	"
		A. R. Macdonell, contractor, 6 temporary spurs, used by him only; constructed by him with T. & N. O. materials.	"
115½	Land slide.	Main line diversion through.	"
118½	Uno Park.	Through siding.	"
120		Riordon Pulp Co. loading spur.	Private.
122		Drew & Taplin Pulp Co. spur.	"
123½		Love's Saw Mill spur.	"
125		Through siding.	T. & N. O. R.
126		Proposed siding, Drew & Taplin Pulp Co.'s loading spur.	Private.
127½		Michigan Sulphite Fibre Co. spur.	"
128½	Earlton	Through siding.	T. & N. O. R.
	"	Ballast pit spur.	"
	"	McBurney's Saw Mill spur.	Private.
130		Riordon Pulp Co.'s loading spur.	"
135	Heaslip	Through siding.	T. & N. O. R.
137½		Wye.	"
137½		Construction material spur.	"

STATEMENT SHOWING BUILDINGS OWNED BY T. & N. O. RAILWAY.

Building.	Dimension.	Location.
<i>North Bay:</i>		
Office building (under construction).	80 x 40 feet	Regina street.
Freight shed.	30 x 170 ft. St'd No. 1	"
Frame office	24½ x 18½ feet	Cor. Regina and Railway.
" shed	84½ x 18½ "	Railway st., back of office 1½ mi.
" dwelling	16½ x 20½ "	Railway street, block A
" "	25½ x 20 "	"
" (G)	45 x 20 "	William street, lot 4.
" (D)	33 x 16½ "	" 309.
" (C)	30 x 30 "	Cr. William & John sts., lot 309
" "	17 x 31 "	Cr. R'lway & John sts., lot 310
" "	30 x 30 "	John street, lot 310.
Rough cast house	20 x 15 "	Cr. John & William sts., lot 312
Frame Shed	16 x 23 "	John street, lot 312.
" dwelling, (A)	31 x 15 "	William street, lot 313.
" and shed (B)	60 x 20 "	" 314.
" "	60 x 25 "	Lot 34.
" (E)	50 x 18 "	Park street, lot 42.
" (F)	50 x 22 "	Cor. Gore & Park sts., lot 42.
Stable (frame)	25 x 15 "	Lot 42.

NOTE:—Letters refer to buildings as indicated on plan 703.

Figure 1. The effect of the concentration of the *Agaricus bisporus* spores on the growth of *Aspergillus fumigatus* on the agar medium.



BUILDINGS OWNED BY T. & N. O. RAILWAY.—Continued.

	Dimension.	Description.
office	30 x 60 feet	Two-story, frame.
construction)	30 x 106 "	" concrete.
ter's store	160 x 20 "	Frame.
store	12 x 11 "	Standard house.
	One special	Motor house.
	10 x 30 feet	Frame.
	6 x 15 "	"
	150 x 53 "	"
	75 x 45 "	"
	100 x 20 "	"
	40,000 gallons	Concrete.
	50 x 147 feet	"
	30 x 60 "	"
table.	15 stalls, 75 foot table.	Frame.
	204 x 20 feet	"
	631 x 20 "	"
	30 x 10 "	Standard semi-enclosed shel- ter No. 9.
	20 x 30 "	Frame, standard No. 2.
	57 x 21½ "	" " " 5.
	12 x 15 "	"
	40,000 gallons	Standard, enclosed.
	30½ x 40½ feet	" No. 2.
	12 x 11 "	"
	11 x 22 "	Frame.
	6 x 15 "	"
	30½ x 14½ "	Standard, No. 2.
	12 x 11 "	Frame.
	30 x 10 "	Standard, semi-enclosed, shel- ter No. 9.
shed	40,000 gallons	Standard, enclosed.
	12 x 11 feet	"
	30½ x 14½ "	" No. 2.
	30½ x 14½ "	" " 2.
	12 x 11 "	"
	20 x 60 "	Frame.
	30½ x 14½ "	Standard, No. 2.
	12 x 11 "	"
	30½ x 14½ "	" " 2.
	12 x 11 "	"
	20 x 60 "	Frame.
	30 x 14½ "	Standard, No. 2.
	12 x 11 "	"
al shed	40,000 gallons	" enclosed.
	30½ x 14½ "	" No. 2.
	12 x 11 "	"
	65 x 29 "	Stone.
	30 x 40 "	Frame.
	70 x 20 "	Std., No. 3., Station (modified)
	70 x 26½ "	Frame, standard, No. 1.
	30½ x 14½ "	Standard, No. 2.
	40,000 gallons	" enclosed.

## STATEMENT SHOWING

Building.	Dimension.	Description.
Tool house.....	12 x 11 feet.....	Standard
Ice house.....	24 x 24 ".....	"
Coal shed.....	24 x 12 ".....	"
Lavatory.....	6 x 15 ".....	"
<i>Grey:</i>		
Freight shed (under construction)...	20 x 30 ".....	"
<i>Rib Lake:</i>		
Section house.....	30½ x 14½ ".....	" No. 2.
Tool house.....	12 x 11 ".....	"
<i>Johnson:</i>		
Section house.....	30½ x 14½ ".....	" No. 2.
Tool house.....	12 x 11 ".....	"
<i>Latchford:</i>		
Station.....	57 x 21½ ".....	" No. 5.
Freight shed.....	60 x 30 ".....	" " 2.
Agent's house.....	28 x 26½ ".....	Frame, standard, No. 2.
Section house.....	30½ x 14½ ".....	Standard, No. 2.
Water tank.....	40,000 gallons.....	" enclosed.
Tool house.....	12 x 11 feet.....	"
Coal shed.....	22 x 11 ".....	Frame.
Lavatories.....	6 x 15 ".....	"
Ice house.....	10 x 15 ".....	"
Track scale with shelter.....	100 ton.....	Standard.
<i>Gillies:</i>		
Combined station and freight shed...	60 x 30 feet.....	Frame.
<i>Cobalt:</i>		
Station.....	80 x 21½ ".....	Standard, No. 5.
Freight shed.....	60 x 30 ".....	" No. 2.
Agent's house.....	28 x 26½ ".....	Frame, standard, No. 2.
Tool house.....	12 x 11 ".....	Standard.
Section house.....	30½ x 14½ ".....	" No. 2.
Lavatory.....	6 x 15 ".....	Frame.
Telegraph office.....	36 x 22 ".....	"
<i>North Cobalt:</i>		
Station.....	61 x 23½ ".....	Standard, No. 5-A.
<i>Haileybury:</i>		
Station.....	48 x 23 ".....	" No. 3.
Freight shed.....	60 x 30 ".....	" No. 2.
Agent's house.....	28 x 26½ ".....	Frame, standard, No. 2.
Section house (under construction)...	20 x 27 ".....	Standard, No. 3.
Lavatory.....	6 x 15 ".....	Frame.
Tool house.....	14 x 16 ".....	"
<i>New Liskeard:</i>		
Station.....	90 x 36 feet.....	Standard, No. 6.
Freight shed.....	60 x 30 ".....	" " 2.
Water tank.....	40,000 gallons.....	" enclosed.
Lavatory.....	6 x 15 feet.....	Frame.
Tool house.....	12 x 11 ".....	Standard.
Engine shed.....	30 x 132 ".....	Frame.
Cattle pen.....	50 x 60 ".....	"
<i>Uno Park:</i>		
Station.....	61 x 26 ".....	Standard, No. 5-A.
Closet.....		Frame.
Tool house.....	14 x 16 feet.....	"
<i>Thornloe:</i>		
Freight shed.....	20 x 30 ".....	Standard No. 2.
Tool houses (2)..... one 12 x 11 ft. and	14 x 16 ".....	Frame.
Water tank and coal shed.....	40,000 gallons.....	Standard enclosed.
Section house.....	26 x 28½ feet.....	" No. 1.
<i>Earlton:</i>		
Station.....	61 x 26 ".....	" No. 5-A.
Closet.....	6 x 15 ".....	Frame.
Freight shed (under construction)...	20 x 30 ".....	Standard No. 2.

**NOTE :-**

STATEMENT SHOWING BUILDINGS OWNED BY T. & N. O. RAILWAY.—Continued.

Building.	Dimension.	Description.
Freight shed .....	20 x 30 feet .....	Standard, No. 2.
Section House .....	28 x 26½ " .....	" No. 1.
Coal houses (2).....one 12 x 11 feet and	14 x 16 " .....	"
Station and restaurant.....	125 x 35 " .....	Frame.
Freight shed.....	30 x 60 " .....	Standard.
Water tank and coal shed .....	40,000 gallons .....	" enclosed.
Boardhouse and turntable, (75 feet	8 stalls.....	Concrete.
under construction) .....	63 x 50 feet .....	"
Machine shop (under construction) ..	204 x 20 " .....	Frame.
Coal chute.....	631 x 20 " .....	"
Coal trestle.....	75 x 30 " .....	"
Three tenement house.....	20 x 27 " .....	Standard No. 3.
Section house .....	14 x 16 " .....	Frame.
Coal houses (2).....	30 x 40 " .....	"
Cattle pen .....		
Pump house.....		
Superior:		
Section house .....	20 x 27 feet .....	Standard No. 3.
Section house .....	27 x 27 " .....	" "
Water tank .....	40,000 gallons .....	" enclosed.
Section house.....	20 x 27 feet .....	" No. 3.
Section house.....	20 x 27 " .....	" "
Section house.....	20 x 27 " .....	" "
Water tank .....	40,000 gallons .....	" enclosed.
Section house (mile 188½) .....	20 x 27 feet .....	" No. 3.
Section house .....	20 x 27 " .....	" "
Section house .....	20 x 27 " .....	" "
Section house .....	20 x 27 " .....	" "
Section house .....	14 x 16 " .....	Frame.
Engine shed (under construction) ..	33½ x 60 " .....	"
Water tank .....	40,000 gallons .....	Standard enclosed.
Pumphouse .....		Frame.

NOTE:—All T. & N. O. Standard Houses are frame buildings.

The Mechanical Department have been very much engaged during the year 1907, following new locomotives have been added to the power equipment of this railway:

## THE POWER AND CAR DEPARTMENT ANNUAL REPORT, 1907.

### NEW LOCOMOTIVES.

During the year 1907, following new locomotives have been added to the power equipment of this railway:

Five new engines, No. 115, 116, 117, 118, 119 and 120, built by the Locomotive and Machine Company, Limited, of Montreal. These have been delivered during the month of December, and are of the ten wheeled type, cylinders 19 inches in diameter, 24-inch stroke. The diameter of the piston on these engines is 57 inches, and they carry steam pressure of 190 lbs. These engines are of a thoroughly modern type, and are equipped with electric head-lights, and are especially designed for freight traffic.

Two six wheeled switch engines, No. 150 and 151, which were ordered from the Canadian Locomotive Works, Kingston, Ont., during the year 1906, have been placed in switching service at Cobalt and North Bay, and have been found to be a decided advantage, and have been constantly in use. The Commission has placed contract with the Canadian Locomotive Works, Kingston, Ont., for further order of six locomotives of the ten wheeled type which will probably be delivered to this railroad during March, 1908. It has been found necessary on account of increasing traffic and further extension of the line north, and on account of increasing number of trains.

It has been considered advisable to recommend the purchase of four new engines (8 wheeled type) which would be used in light passenger service.

### LOCOMOTIVE MILEAGE.

During the year 1907, the following engines belonging to this railroad have run the mileage as shown below:

Miles 1907.	Engine No.	Miles 1907.
44,205	111	53,932
47,090	112	42,858
33,420	113	54,694
34,133	114	36,924
44,383	115	776 (New engine)
34,626	116	270 "
43,430	150	44,276
45,732	151	64,431
32,313		
27,221	Total .....	684,714



## ENGINE DESPATCH.

The following is a statement showing the number of engines despatched from the different terminal points during the year.

Terminal Station.	Number of engines despatched.
North Bay.....	2,396
New Liskeard.....	2,217
Englehart.....	617
Total.....	5,230

## REPAIRS AND RENEWALS TO LOCOMOTIVES.

During the year the locomotive equipment has been maintained in good working order, and repairs and renewals necessary from time to time have been executed.

Engine 101 which is in work-train service, had a light repair, and was turned out of shop April 4th.

Engine 102 had light repairs at North Bay shop during month of June.

Engine 103 was taken into shop for driving tires to be turned in July, 1907, this engine had to be forwarded to the Locomotive and Machine Company of Montreal, on account of main frame being broken. (On account of limited facilities at North Bay, we were unable to do repairs in our own shop.) The engine received a new set of boiler tubes, and was returned to service in first-class condition, September 11th.

Engine 104 received light repair, and had driving tires turned, and was delivered for service April 24th.

Engine 105 had necessary work done, and was delivered for service August 23rd.

Engine 106 had a new cab applied, and was given a general repair, and turned out for service October 16th.

Engine 108 was repaired at North Bay shop, new back casting, and repainted, and turned over for freight service November 22nd.

Engine 109 received a thorough overhauling at North Bay shop, and was turned out March 16th, 1907.

Engine 110 was given a general repair and turned out of shop June 26th. This engine had driving tires turned, engine and tender painted, and was handed over for passenger service on trains 48 and 49.

Engine 112 was in shop for repairs to cylinder, etc., and was turned out March 25th, 1907. This engine was given heavy repair, and had driving tires turned, and delivered for services August 11th.

Two new tender tanks have been received, one of which was applied to passenger engine 109. The second one will be applied to engine 110 when it is necessary to bring her to the shop for repairs. These two engines are rather older than the balance of the equipment, having been purchased from the Pittsburg and Lake Erie Railroad Co., in 1905. Since coming to this road they have rendered exceptionally good service on light passenger runs.

Engine 150, in switching service between New Liskeard and Cobalt.

Each engine has had a general service. Stays in fire boxes and renewals made. The nettings in smoke stacks are examined at the same time, and precaution has been taken, and at such seasons as necessary, minimum, nettings, as well as proper records are kept of locomotive condition, and washed out.

During the past year, several new engines have been received from the factory. These are numbered, and are calculated. Two new second-class coaches, and are calculated. Two new Workmen's coaches, and are calculated. Equipment during the year, and are calculated. Three, 34, 36 and 38, and are calculated.

The following passenger coaches have had light repairs: Second-class coach, No. 1, Second-class, No. 2, and 112.

Coaches, No. 18 and 19, Chicago, during 1907, have been applied to. Second-class coaches, No. 1, Mail Car, No. 7, baggage combination baggage, wheels changed, water pipes repaired, repainted and varnished, mail and express, No. 17, revarnished, careful inspections, and wheels changed.

The Commission has been applied to, Preston, Ont.

Each engine has had boiler washed out once every two weeks when in regular service. Stays in fire boxes have been regularly tested every three months, and renewals made where necessary.

The nettings in smoke boxes, ash pans, and the dampers, have been regularly examined at the end of each trip during the summer season, and every precaution has been taken against fire from this cause. During damp weather, and at such seasons as the danger from this source would be reduced to a minimum, nettings, ash pans, and dampers, have been examined twice a week. Proper records are kept in the Master Mechanic's office, of the examination of locomotive stay bolts, nettings, dampers, and also of the boilers washed out.

#### NEW COACHES.

During the past year four new first-class coaches, thoroughly up to date, have been received from the Crossen Car Co., Limited, of Cobourg, Ont. These are numbered, 110, 111, 112, 113.

Two new second-class coaches, numbers 40 and 42, have also been received from the same manufacturers. These are a thoroughly substantial coach, and are calculated to give good service.

Eight new Workmen's cars (third-class) have been added to the rolling stock equipment during the year. Five of these, 24, 26, 28, 30 and 32, being received from the Rhodes Curry Co., Amherst, Nova Scotia, and the remaining three, 34, 36 and 38, from the Crossen Car Company, of Cobourg, Ont.

#### REPAIRS TO COACHES.

The following passenger equipment has been repaired at North Bay: Second-class coach, No. 2, in January, 1907, had necessary pipe work done. Second-class, No. 4, pipes repaired in March. The following first-class coaches have had light repairs, and been varnished: 106, 107, 108, 109 and 112.

Coaches, No. 18 and 22, purchased second hand from the Hicks Company, Chicago, during 1906, have been thoroughly overhauled, new heater pipes have been applied throughout, and coaches repainted and varnished.

Second-class coaches, No. 4, 6 and 8, requiring heavy repairs, which could not be handled at North Bay, owing to the limited facilities, have been shipped to the Preston Car and Coach Company, Preston, Ont., to have necessary work done.

No. 1, Mail Car, had heater pipes repaired during the month of January, and No. 7, baggage car during the month of February.

Combination baggage and mail car, No. 5, repairs made to coupler, one set of wheels changed, and pipes overhauled. Baggage cars, No. 11 and 13 heater pipes repaired during March. Mail and express car, No. 3, repaired, repainted and varnished, and turned out of the shop during April. No. 5, mail and express car, repainted and varnished during May. Baggage car No. 17, revarnished, and turned out during same month.

Careful inspections are made of all wheels and axles, also with regard to flanges, and wheels changed where required.

#### NEW BAGGAGE CARS.

The Commission has awarded contract to the Preston Car and Coach Company, Preston, Ont., for four new baggage cars, two to be of the combination baggage and mail type, and two baggage and express.

## NEW FREIGHT CARS.

During the year the following new freight equipment has been received: One hundred and seventy-five new flat cars built by the Rathbun Company, Deseronto, Ont., of sixty thousand pounds capacity each. These cars are all equipped with automatic couplers, metal body bolsters, and Westinghouse Air Brake, and are used largely in the lumber and log traffic.

The Commission has also purchased and received from the Dominion Car and Foundry Company, Montreal, one hundred steel underframe flat cars, each having a capacity of one hundred thousand (100,000) pounds. These cars are 36 feet 9 inches long, the same length as the ordinary wood flat cars, and are thoroughly up to date in every particular.

## NEW CONDUCTORS' VANS.

The Commission has awarded the contract to Rathbun Company, Deseronto, for four standard conductors' vans. These have not yet been delivered.

## REPAIRS TO VANS.

Van No. 50 has been rebuilt and turned out for service during December. Van No. 55 has had necessary repairs done, also two pairs of wheels changed in van 52.

## REPAIRS TO FREIGHT CARS.

The necessary repairs and renewals have been made by the staff at North Bay and Englehart to freight cars belonging to this road, also repairs to foreign cars handled in interchange, where necessary. Proper bills for all repairs to foreign cars have been rendered against the owners in accordance with the Master Car Builders' Rules of Interchange.

Twenty box cars have been fitted up for use as boarding cars in construction service.

## STEAM SHOVELS.

Have received one new Bucyrus steam shovel, manufactured by the Canada Foundry Company of Toronto, which has been put into service and found satisfactory.

Repairs have been made to No. 1 steam shovel.

## SNOW PLOWS.

During month of October one new Russell snow plow has been received from Russell Car and Snow Plow Company, Ridgeway, Penn. This plow is operated by air and is a first-class addition to the equipment for fighting snow. Repairs have been made to snow plow No. 1, plow being raised at front and two apron shoes applied. Plow No. 2 has also been overhauled. Snow flangers No. 1 and 2 have had the old mould board flangers removed and have been equipped with new Russell flanger made to operate by air. The snow flangers have been maintained in good condition for the work for which they are required.

## PILE DRIVER.

During the month of December one new pile driver has been received. This was manufactured by the Industrial Works of Bay City, Michigan, and supplied through the F. H. Hopkins Company of Montreal, Canadian representatives.

## AUXILIARY EQUIPMENT.

The auxiliary steam crane received during 1906 has been maintained in first-class condition, and the equipment at North Bay and Englehart has been still further improved by the addition of two tool cars. Two auxiliary board-ing cars have been received from the Rhodes Curry Company, Amherst, Nova Scotia. No. 1, has been stationed at North Bay, and car No. 2 forwarded to Englehart. These cars have both been equipped with a good supply of dishes and cooking utensils, and carry necessary stock of provisions.

Flat car 60,295 has been rebuilt as a cabin car for use in connection with the auxiliary steam crane.

## OFFICIAL CAR "TEMAGAMI."

The official car "Temagami" has been maintained in good condition, all water pipes renewed, new cabinets supplied, and revarnished during the month of June.

## WORK DONE AND REPAIRS MADE FOR OUTSIDE COMPANIES AND FIRMS.

The following work has been done for A. R. Macdonell, Contractor, New Liskeard, Ont.: January, 1907, bored four locomotive driving tires for engine No. 13. Two syphon hose month of July. Bills rendered against contractor for water supplied locomotives at Uno Park pump house, rental of steam crane and wages of operator for use on the contractor's line October 12th and 14th. Turned two pairs of driving tires month of July, and charged contractor for repairs to T. & N. O. box car 60,114, damaged month of September. Two pairs driving tires turned, engine No. 11, November. Made necessary charges against contractor for engineers supplied as pilots when contractor's engines were passing over our line. Engine No. 18 piloted from North Bay to New Liskeard June 15th, and No. 9 June 30th. Boiler maker at New Liskeard expanded and caulked boiler tubes in contractor's engine No. 16, December. Rendered bill for rental of auxiliary tool car, engaged in service on line north of Englehart with T. & N. O. car repairer in charge. Two brasses supplied to steam shovel passing through North Bay, December 28th.

Work done for the Cleveland Sarnia Saw Mills Company, Diver, Ont. Pattern made for locomotive, and one casting made, month of February. Pattern made for goose neck casting, June. Wire cloth screen for locomotive smoke stack, June. Six cold sets month of July. Charge made against this company for wages of engineer piloting engine No. 6 from Diver to North Bay, October.

Work done for Nipissing Foundry Company: Grate bar pattern made and supplied. Pattern made planer, and one-third inch globe valve, June.

A small locomotive (Norah) belonging to Empire Lumber Company at Latchford, Ont., has been thoroughly overhauled, repainted and varnished during May.

The O'Connor Hotel and Steamboat Company: Water supplied from pump house at Temagami station to above company, charge rendered during season. Loaned North Bay auxiliary tool car, November 28th, with car repairer in charge, for purpose of drawing steam boats from water to secure for winter season.

The steam crane loaned to J. R. Booth, of Ottawa, during July for purpose of unloading a number of boats at Latchford, and account rendered for service.

Two new brasses,  $4\frac{1}{2} \times 8$ , supplied to McRae, Chandler & McNeil October, for steam shovel at Earlington.

Rendered account against Montreal Refining and Reduction Company for rental of steam crane and wages of operator unloading machinery Trout Lake smelter, November.

Supplied four tanks of water, Canadian Pacific Railroad Company, July. Steam crane loaned for use at Cache Bay, July, for which account has been rendered.

Steam crane loaned Grand Trunk Railway System, July 8th and 9th, for use at Callander, also August 3rd, for which proper accounts have been rendered.

#### PUMPING STATIONS.

Pumping plants and pump houses at Widdifield, Moose Lake, Red Lake, Temagami, Latchford and New Liskeard, have been properly maintained, regularly inspected, and necessary work done with regard to cleaning boilers and tubes, and repairs to pumps. New pumping station completed at Uno Park. Water service installed at Englehart.

Preparatory to taking over line north of Englehart water stations have been installed at mileage 164 $\frac{1}{2}$ , 183, and Matheson.

#### STATION HEATING APPARATUS.

The heating equipment at following stations on line has been thoroughly overhauled, put in good working condition for winter service: Widdifield, Temagami, Latchford, Cobalt, Haileybury, and New Liskeard.

#### SHOP EQUIPMENT AND TERMINAL FACILITIES.

New modern coal chute constructed at North Bay Junction and now in service. A chute is in course of erection at Englehart.

New roundhouse at North Bay Junction partially completed, eight stalls are in use. The balance (7 stalls) will be completed during 1908.

Machine shop 150 feet by 50 feet completed and ready for occupation about close of the year.

Blacksmith shop 40 feet by 30 feet and tinsmithing and pipe fitting shop about completed.

Rack for holding material has been constructed and placed in old shop. Pair of trusses completed for old shop, desk made and shipped to Englehart for use of Locomotive Foreman.

The following new machinery has been received during the year 1907 for North Bay Junction shop:

One new crank pin press.

One new portable pump for testing boilers.

One new 50 K.W. electric generator, from Allis, Chalmers Bullock & Co.

One new engine for generator, from Robb Engineering Co., Ambler, N.S.

One new 40 H.P. stationary engine from Goldie, McCulloch Co., Oak

One air compressor from the Canadian Rand Drill Company.

One new slotting machine from McGregor, Gourlay Company, Galt

One new pipe threading machine.

One new buffing wheel.

Two new McCaslin blacksmiths' forges, manufactured by the Foundry and Machine Co., Monesson, Pa.

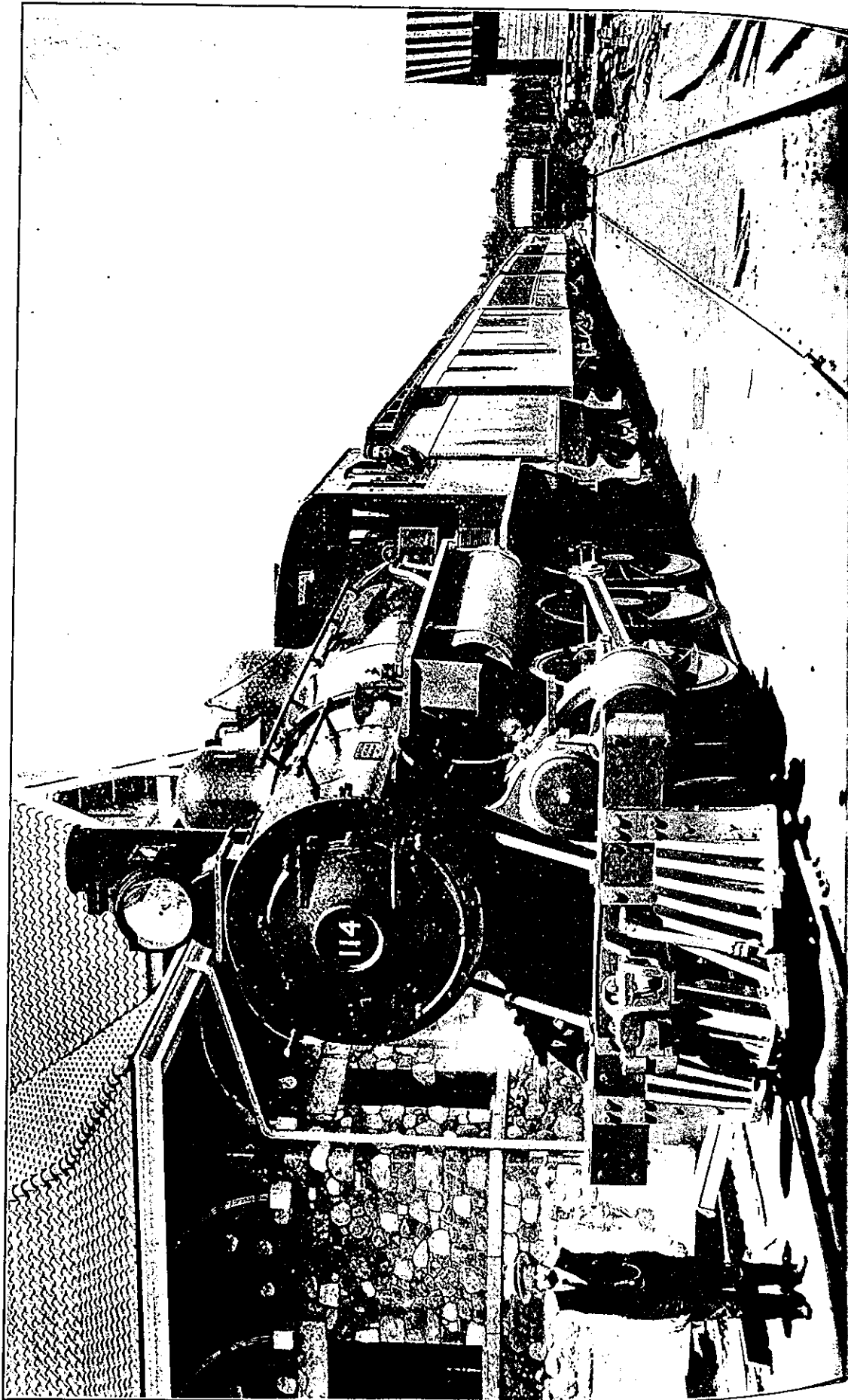
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## STATEMENT OF ACCIDENTS AND PERSONAL INJURIES DURING 1907.

March 30th, Ronald McDonald struck by train No. 11, mileage 104 $\frac{1}{2}$ , cutting one leg off and breaking the other in several places. Man died April 1st.

April 25th, F. J. Neff, while attempting to board down freight extra 102 at Cobalt, missed footing, fell between cars and was killed instantly.

May 27th, Patric Lecleir, killed at Cobalt by Temiscaming coal extra falling on him, while train No. 11 was switching in yard. Cause supposed to have been by vibration of engine.

May 31st, six cars on train No. 12 were derailed, mileage 43, doing considerable damage to track and cars.

June 28th, Chas. Barrager of Tweed, Ont., passenger on passenger extra 114, south, had finger caught between vestibule of two coaches, crushing same.

July 9th, extra 106 derailed, mileage 134 $\frac{1}{2}$ , causing death of engineer Thos. Gold, and doing considerable damage to engine.

July 11th, ballast extra 101 pitched into freight extra 103 at mileage 5 $\frac{1}{2}$ , causing \$2,444 damage to rolling stock and track.

August 7th, train No. 4, engine 105, derailed M.P. 98, causing slight damage to engine and \$222 damage to track.

Nov. 13th, engine 114 left train mileage 51 $\frac{1}{2}$  to go to Redwater for water, and on return ran into train damaging one of our steel flat cars and tender of engine.

Nov. 21st, brakeman T. D. Charlebois, while jumping off light engine 102 at Moose Lake 1.55 a.m., missed his footing and had leg jammed between platform and step of engine, breaking leg in two places, necessitating amputation above the knee.

Nov. 29th, Paul Degan, while attempting to board train No. 1 at Cobalt after train had started, fell under wheels, cutting off both legs and badly smashing right arm above the elbow. Man died the same day.

December 9th, train No. 46 ran into A. R. Macdonell's engine which was standing foul without protection at south leg of the Wye, New Liskamung, damaging contractor's engine considerably, also damaging our engine 111 and track to some extent.

## REPORT OF WILLIAM YOUNG, GENERAL ROADMASTER

Commencing January 1st, 1907, the road or maintenance of way department was transferred from construction to transportation or operation, there by placing under my supervision the general roadmaster, William Young. Report of work is as follows:

## MAINTENANCE OF TRACK, 1ST DIVISION.

The track has been maintained in better surface and line during the present year than in 1906, largely on account of the new roadbed gradually become more consolidated. In order to maintain better gauge on curved track, it was found necessary to increase the number of tie plates, also slightly increase the elevation of the outer rail to meet the required speed of trains. A number of curves remain to be treated in like manner.

The track through Dane Yard heaved very much during the winter of 1907 and 1908, requiring shimming to the extent of 12 inches to regulate the surface, a system of tile drains were put in of 6 inch land tile covered with cinders and fine brush which is expected to reduce the heaving conditions to a minimum.

The section gangs were placed on the extension of main line from Matheson to Cochrane in the month of December, tie plates added to the curves as a betterment, and much remains to be done in this direction.

#### *Construction of Branch Lines.*

All curves on the Kerr Lake, Haileybury, and Charlton branches, were supplied with tie plates on every tie, in order to hold the curved track to proper gauge.

Works under Construction at end of December not completed.

#### *First Division.*

Location.	Remarks.
North Bay Jct.....	Open box drain, timber 4'x4', outlet drainage from yard to Lake Nipissing.
Diver.....	Through siding North Leg of wye.
M. P. 115½.....	Rip Rapping, South Wabis River, under Permanent Bridge.

#### *Second Division.*

M. P. 220.....	Land slide (Clay Cut) clogging ditch.
Cochrane.....	Terminal sidings.

### Report of Motive Power and Car Department.

(A. Allan, Master Mechanic.)

#### *New Locomotives.*

During the year 1908, the following new locomotives were added to the motive power equipment of this railway:—

• Six new engines, Nos. 121, 122, 123, 124, 125, 126, built by the Canadian Locomotive Works of Kingston, Ont. These were received during the month of April. They are of the ten-wheeled type, with cylinders 19 inches in diameter, 24-inch stroke. The diameter of the drivers is 57 inches, and they carry steam pressure of 190 pounds. The weight in working order is 143,800 lbs., of which 113,675 lbs. is on driving wheels. The engines are of a thoroughly modern type (and are equipped with electric headlights), especially designed for freight service.

The six new locomotives, Nos. 115 to 120, inclusive, received from the Locomotive & Machine Company, Montreal, at close of 1907, have been con-



stantly in service both in freight and passenger traffic, and with the six received from Kingston, have been a valuable and most necessary acquisition to the motive power equipment.

Owing to the large amount of construction work which has occupied attention during the summer of 1908, we have been heavily taxed to meet demands for traffic, and, in addition to supply the required number of engines for use in work train service, both for improvements and maintenance, and also in connection with work in hand on extension of line from Matheson to Cochrane.

It has been considered advisable, owing to the amount of work done at Englehart, to consider the purchase of two more switch engines, similar to the 150 and 151 class. In addition to the terminal work at that point we now have the Charlton Branch in operation.

#### Locomotive Mileage.

During the year of 1908 the engines belonging to this railway have run the mileage as shown below:—

Engine No.	Miles run 1908.	Engine No.	Miles run 1908.
101.....	19,768	116.....	33,435
102.....	24,171	117.....	26,973
103.....	32,402	118.....	28,090
104.....	11,433	119.....	50,564
105.....	27,797	120.....	30,130
106.....	30,738	121.....	22,569
107.....	28,773	122.....	24,828
108.....	27,854	123.....	24,478
109.....	26,091	124.....	18,974
110.....	22,410	125.....	22,582
111.....	42,759	126.....	19,830
112.....	52,459	150.....	26,187
113.....	24,164	151.....	27,964
114.....	43,611		
115.....	30,617	Total.....	799,651

#### Engine Despatch.

The following statement shows the number of engines despatched from the different terminal points during the year:—

Terminal Stations.	Number of Engines Despatched.
North Bay.....	2,308
New Liskeard.....	411
Englehart.....	2,127
Matheson.....	301
Total.....	5,147

### Repairs and Renewals to Locomotives.

During the year the motive power equipment has been maintained to the necessary standard of efficiency, and the repairs and renewals required from time to time have been executed thereon.

Engine 101 taken into shop January, 1908, given a heavy repair, repainted and varnished, and put in freight service.

Engine 102 taken into shop during March; necessary repairs made and new set of tubes applied.

Engine 104 taken in during March; received new set of driving tires, boiler tubes renewed, repainted and varnished.

Engine 107 taken into shop during July; received new set of driving tires and turned out for work train service.

Engine 108 required to be sent to the repair shop during October on account of cracked driving wheel centres, rendering unsafe for service. New wheel centres were received from Canadian Locomotive Works, Kingston. Engine has been returned to freight traffic.

Engine 109 taken into shops during March; necessary repairs made and engine turned out for passenger service. This engine was derailed in work train service of Contractor T. S. Scott, near Cochrane during October. It is now in repair shop and will be put in serviceable condition.

Engine 110 received necessary repairs during July and returned to work train service.

Engine 111 brought to shop during February and had repairs made to rod brasses, etc., and returned to passenger service.

Engine 112 has rendered good service on passenger trains and was repainted during July.

Engine 113 is at present in repair shop and will be turned out in good condition.

Engine 114 turned out during the month of February, repairs consisting principally to the tender tank and frame.

Engines 115, 116, 117, 118, 119 and 120, being new power, have not required further repairs than ordinary running work to keep them in first class condition. This also applies to the balance of new locomotives from Kingston, which have had no extensive work done on them.

Engine 121 repaired during July on account of damage sustained in construction service on Charlton Branch.

Engine 150 had boiler work done during February, was repainted and varnished and returned to switching service at Cobalt. This engine was also re-tubed during month of April, which was necessary on account of extremely bad quality of Cobalt Lake water.

Engine 151 turned out during the month of June with the driving tires turned.

New tender tank is now on hand and will be applied to engine 110 when returned to shop.

The Motive Power equipment has been generally assigned during the year as follows:—

Engine 101, freight and work train service.

Engine 102, freight and work train service.

Engine 103, freight and work train service.

Engine 104, freight and work train service.

Engine 105, freight and work train service.

Engine 106, freight and work train service.

Engine 107, freight and work train service.

Engine 108, passenger, freight and work train service.  
Engine 109, passenger, and work train service.  
Engine 110, passenger and work train service.  
Engine 111, passenger service.  
Engine 112, passenger service.  
Engine 113, passenger and work train service.  
Engine 114, passenger service.  
Engine 115, freight train service.  
Engine 116, freight train service.  
Engine 117, freight and work train service.  
Engine 118, passenger train service.  
Engine 119, passenger train service.  
Engine 120, freight and work train service.  
Engine 121, freight and work train service.  
Engine 122, freight and passenger train service.  
Engine 123, freight train service.  
Engine 124, freight train service.  
Engine 125, freight train service.  
Engine 126, mixed service between Englehart and Matheson.  
Engine 150, in yard service at Cobalt.  
Engine 151, in yard service at North Bay Jct.

Each engine has had boiler washed out, once every two weeks—when in regular service—staybolts in fire-boxes have been regularly tested—and renewal made where broken bolts were found.

Nettings in smoke boxes, ashpans, and dampers have been regularly examined, every trip, during the summer season as precaution against fire. During damp weather and at such seasons as the danger from this source would be reduced to minimum, nettings, ashpans, and dampers have been examined twice a week. The necessary records are kept in Master Mechanic's office of these inspections, also of dates on which boilers were washed out. Considerable trouble has been experienced on new section, north of Englehart with engine in Construction service, on account of poor quality of water which at times we were obliged to use.

#### Repairs to Passenger Equipment.

The following passenger equipment has been repaired at North Bay shop :

First class coach 104, overhauled, painted and varnished during October.

First class coach 105, given a thorough overhauling, repainted and varnished and turned out during June.

First class coach 107, two pair wheels changed during July. This coach was equipped with the Safety Car Heating Equipment and Pintsch Gas.

First class coach 110, in shop during August, equipped with Safety Car Heating System and Pintsch Gas, and also repainted and varnished.

First class coach 111, is now in repair shop at North Bay.

Second class coach 8, had necessary renewals of wheels made and was

First class coach 112, received repairs in vestibule during April. equipped with Pintsch Gas, revarnished and turned out during September.

The following second class coaches were shipped to the Preston Car & Coach Co's plant at Preston, Ont., for general overhauling, and were returned to North Bay in first class condition :

No. 2 returned July 2nd.

No. 4 returned January 24th.

No. 6 returned March 2nd.

No. 8 returned February 22nd.

Repairs to flat car 124, at Englehart, two pair steel tired truck wheels turned up in North Bay shop.

Repairs to engine 17 at North Bay.

Repairs to flat car 98 at North Bay.

Repairs to flat car 128.

Loading one car wheels on their No. 35, North Bay.

Bills have been rendered to cover all work, also for sundry oil, etc., supplied to contractor's equipment while moving south, and for water supplied to his engines from the tanks of this railway. Account has been rendered to cover damages to engine 109, for which they were responsible.

*Canadian Pacific Railway.*—Steam crane No. 1 was loaned to C. P. R. for use at mileage  $11\frac{1}{2}$  west of North Bay, January 20th, 1908, for which proper bill has been rendered. Crane was also loaned for use at Mackays Station, October 25th, 1908, and proper bill rendered to cover charge.

One lead sink relined for the restaurant at Temagami station, during June, and proper account sent in.

Light repairs made to machinery for W. Milne & Sons at Trout Lake, during April.

Steam crane was loaned on April 15th to the Montreal Refining and Reduction Co., for unloading one car of machinery at their plant at Trout Mills, for which proper charges were made.

*Work for Contractor T. S. Scott.*—One track-laying machine repaired during month of April. Number of flat cars fitted up for gravel service as required. Six flat cars fitted with sides for loading coal. Twenty-four cast-iron lorry wheels fitted with axles during month of May. Number of jack boats, blocks, planks, chains, etc., were fitted up during May, and shipped to Driftwood City, also some short pieces of rails with necessary bridles, fish-plates, stop blocks and bolts. Coaches 16 and 20 were repaired and sold to the contractor for living cars on the construction work between Matheson and Cochrane.

Bills have been rendered monthly to cover all work done for construction, including engine rental, repairs, water supplied construction engines and other miscellaneous charges.

#### Rolling Stock and Equipment.

The motive power, equipment, passenger, freight and other rolling stock of this railway, December 31st, 1908, is comprised of the following:—

26 road engines.	100 box cars.
2 switch engines.	489 flat cars.
2 official cars.	3 snow plows.
14 first class coaches.	2 snow flangers.
21 second class and workmen's coaches.	4 gravel plows.
4 baggage and mail cars.	2 steam cranes.
2 mail and express cars.	2 steam shovels.
13 conductors' vans.	2 Lidgerwood Rapid Unloaders.
7 baggage and express cars.	7 flat cars assigned to special service.
2 auxiliary boarding cars.	2 auxiliary tool cars.
10 stock cars.	