

ONTARIO
NORTHLAND
RAILWAY DIARY

ONTARIO
SESSIONAL
PAPERS

1918-1923

Painting.

Under contract with the O'Boyle Bros. Construction Co., the following buildings were painted one coat:—

Trout Mills.—Station.
Widdifield.—Station, water tank, section house.
Mulock.—Section house.
Moose Lake.—Water tank, section house.
Riddle.—Section house.
Otter.—Section house.
Bushnell.—Section house.
Redwater.—Two section houses, water tank.
Doherty.—Section house.

Temagami.—Restaurant, water tank, freight shed, section house.
Rib Lake.—Section house.
Johnson.—Section house.
Latchford.—Station, freight shed, water tank, section house.
Cobalt.—Section house.
Haileybury.—Station, freight shed.
New Liskeard.—Station, freight shed.

Ties and Track Material.

Ties.—John Cahill, contractor, Bonfield, has completed delivery of ties on both contracts.

At Nellie Lake the soil is sandy and the growth principally jack pine. It was here necessary to maintain a constant watch and to employ fire rangers to protect the ties. In this locality 150,000 were piled. To guard against spread of fire, from clearing operations or from other causes, the right of way was cleared for an extra width of 100 feet. Several fires occurred, caused principally by labourers walking out of the country and leaving small camp fires burning. No ties were, however, destroyed. Some of the standing tie timber adjoining the right of way was somewhat damaged.

Rails.—To provide rails for the terminal yards at Cochrane a contract was entered into with the Algoma Steel Co., of Sault Ste. Marie, for the delivery of 650 tons of 80 pound open hearth steel rails, low in phosphorous. These were delivered in October.

Main Line Construction, A. R. Macdonell, Contractor.

The work of filling trestles from mile 200 northward was continued during the winter of 1907 from the Wataybeag Pit.

Until March 23rd the contractor operated the line north of Englehart. On that date the contract was taken off the contractor's hands as completed, and the first train operated by the Commission went over the height of land.

During the past summer many settlements occurred in the fills made during the fall and winter of 1907. These were brought up to grade by the Commission. For this purpose steam shovel outfits were placed in the pit at Dane, and in the southern Wataybeag pit.

The Canada Foundry Co. let us cross the Wataybeag bridge on April 20th, after being at the bridge site almost four months.

By arrangement with McRae, Chandler & McNeil track laying between the Wataybeag bridge, mile 208, and the southern end of their contract, 212.4 was done on force account basis. The ballasting over this portion was done by these contractors at the price per cubic yard for which they tendered to do ballasting on their own contract.

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ACCIDENTS.

Date, 1916.	Name of Person Injured.	Nature of Employment.	Place of Accident.	Work at which Employee was Engaged at Time of Accident.	Extent of Injury.
Nov. 2	Edward Rose	Blacksmith	North Bay	Upsetting shackle bar	Ruptured.
" 7	Geo. Bernette	Laborer	North Bay	Loading Timber	Foot crushed.
" 15	Jos. Sasseville	Sectionman	Widdfield	Handling rails	Finger jammed.
" 29	Geo. Goli	Laborer	Dane Pit	Picking clay	Foot bruised.
Dec. 1	T. Forzezuk	Laborer	North Bay	Handling rails	Toe bruised.
" 5	Enos, Scobie	Laborer	Mileage 6 1/4	Handling rails	Left shoulder and back bruised.
" 6	Wm. Swain	Helper	North Bay	Cleaning coach	Hand, arm and side bruised.
" 11	Fred. Palmer	Laborer	Mileage 76	Handling rails	Finger bruised.
" 15	Robert White	Car Repairer	North Bay	Handling tools	Toe broken.
" 19	Chas. C. Miller	Car Inspector	Englehart	Attending heaters	Foot hurt.
" 20	Louis Rousson	Carman	Cochrane	Handling coal	Back injured.
" 30	Vincenzo Deluca	Laborer	Temagami	Riding on hand car and fell off in front of car	Ankle injured.
1917.					
Jan. 2	Hugh Allan	Inspector	Matheson	Drilling concrete	Hand injured.
" 3	Wm. Hiltz	Sectionman	Porquis Junction	Pulling on line and block at coal chutes	Leg injured.
" 5	W. Hilton	Helper	North Bay	Assisting boiler-maker at work on engine	Cheek cut and eye bruised.
Feb. 1	B. Cipparone	Helper	North Bay	Holding clamp on tire when it slipped and fell on his foot	Toe bruised.
" 2	J. Lamarche	Helper	North Bay	Fell into engine pit while walking in round-house	Knee bruised.
" 13	Geo. McIntosh	Laborer	North Bay	Planing a piece of board	Two fingers crushed.
Mar. 2	W. Silverthorn	Machinist's Apprentice	North Bay	Carrying tools in machine shop	Three fingers cut and bruised.
" 4	G. Travo	Sectionman	Cochrane	Unloading coal at coal chutes	Collarbone broken.
" 19	Jno. Bellevue	Laborer	Cochrane	Coaling engine	Foot bruised.
" 19	Mike Rota	Laborer	North Bay	Moving turntable	Side and back strained.

Mar. 23	Edward Thorning	Helper	Cochrane	Working on engine	Thumb smashed.
" 24	Edward P. Leach	B. & E. Foreman	Redwater	Building chimney, fell from scaffold	Two ribs broken.
April 22	Geo. Main	Section Foreman	Dane	While riding on hand-car, blasting caps which were on the car exploded	Leg injured.
" 22				Repairing locomotive	Thumb cut and bruised.
May 7	Wm. Cripps	Machinist	North Bay	Repairing locomotive	Finger broken.
" 13	Geo. W. Powles	Machinist	North Bay	Handling ties	Arm fractured.
" 28	Enos Scobie	Laborer	Wabun	Pumping hand-car	Finger bruised.
June 11	Wm. Munroe	Sectionman	Haileybury	Handling tools	Toe injured.
" 14	F. Cipparone	Blacksmith's Helper	North Bay	Cleaning locomotive	Back strained.
" 14			Irondules Falls		Back scalded.

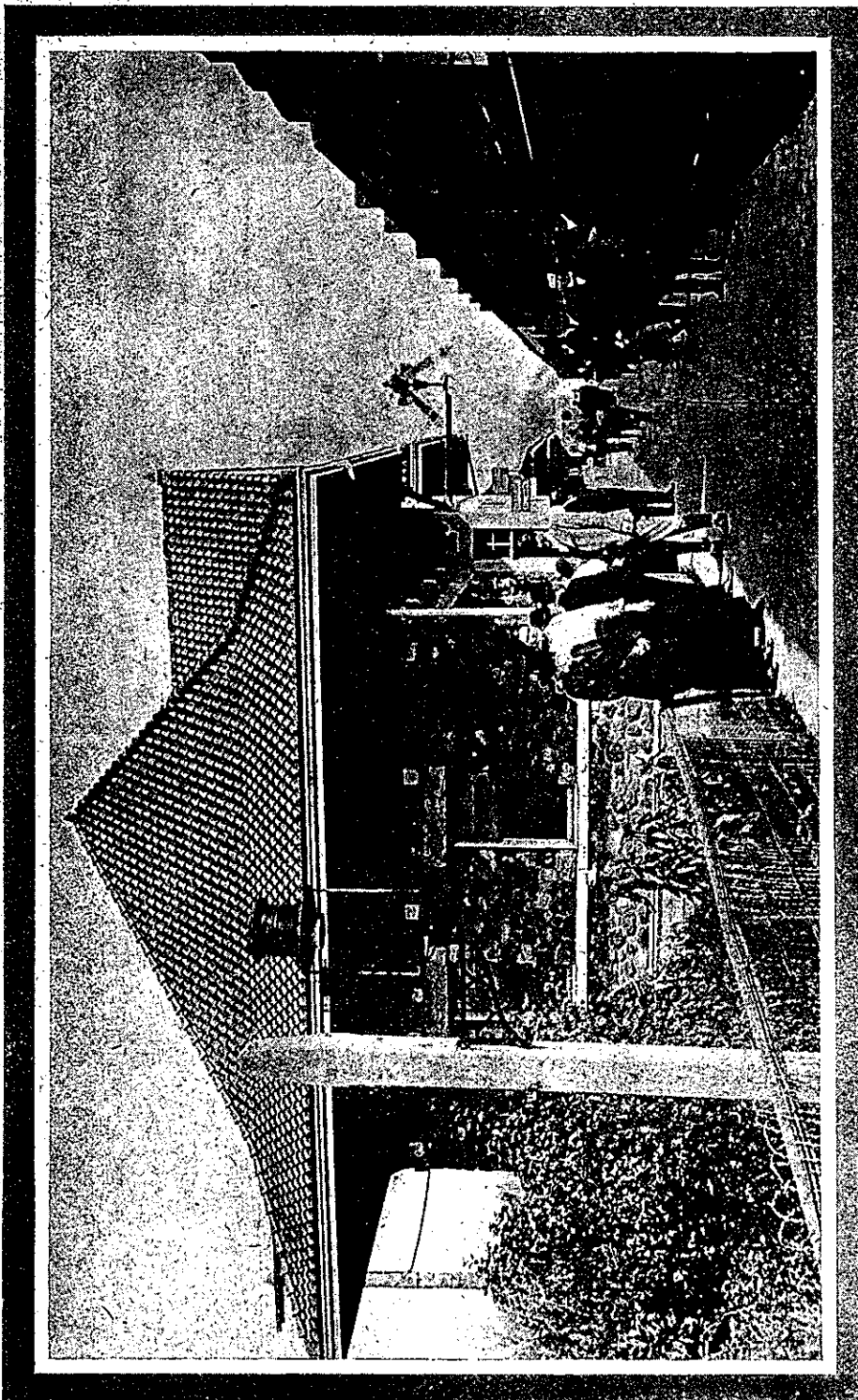
Mar. 23.....	Edward Thorning	Helper	Cochrane	Working on engine	Thumb smashed.
" 24.....	Edward P. Leach	B. & B. Foreman	Redwater	Building chimney, fell from scaffold	Two ribs broken.
April 22.....	Geo. Malin	Section Foreman	Dane	While riding on hand-car, blasting caps which were on the car exploded	Leg injured. Thumb cut and bruised.
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" 13.....	Geo. W. Powles	Machinist	North Bay	Repairing locomotive	Toe injured. Back strained.
" 28.....	Enos Scoble	Laborer	Wabun	Handling ties	Foot scalded.
June 11.....	Wm. Munroe	Sectionman	Halleybury	Pumping hand-car	Foot injured.
" 14.....	F. Cipparone	Blacksmith's Helper	North Bay	Handling tools	Foot scalded.
" 22.....	F. Tignanelli	Hosler	Iroquois Falls	Cleaning locomotive	Foot scalded.
" 27.....	A. Jensen	Sectionman	Porquis Junction	Rerailling locomotive	Foot injured.
July 10.....	Allan Johnson	Section Foreman	Kenabeek	Mowing grass	Hand bruised.
" 22.....	Edward Rose	Blacksmith	North Bay	Repairing locomotive	Back injured.
" 24.....	Albert Marleau	Sectionman	Widdfield	Handling ties	Hand cut.
" 27.....	Frank Duff	Pipefitter	North Bay	Repairing steam line	Fatally burned.
" 28.....	Chas. Rose	Water Boy	Halleybury	Lighting fire for supper	Finger crushed.
Aug. 4.....	Jas. Martin	Laborer	North Bay	Lifting automatic jack	Thigh scalded.
" 4.....	Chas. W. Mould	Tenderman	North Bay	Repairing locomotive	Legs and hands burned.
" 14.....	Robert Roddy	Section Foreman	Mileage 7	Pouring coal-oil on fire	Toes bruised. Hip bruised.
" 24.....	Nap. Dubois	Sectionman	Sesekinika	Lifting track	Head cut.
Sept. 17.....	N. Kalynick	Sectionman	Cobalt	Repairing track	Shoulder bruised.
Oct. 7.....	Wm. Baronet	Steam Shovel Cranesman	Barber's Bay	Removing steam shovel boom	Finger injured.
" 15.....	Nathan Abramson	Laborer	Englehart	Handling ice	
" 30.....	Francis Leppan	Machinist	North Bay	Placing piston rod in lathe	

The accompanying report of the Motive Power and Car Department for year ending October 31st, 1917, prepared by Master Mechanic Thomas Ross, contains additional detailed information in reference to the operation of this department.

In conclusion, I would take this opportunity of expressing appreciation of the faithful and efficient service rendered by the officers and employees.

Respectfully submitted,

S. B. CLEMENT,
Chief Engineer and Superintendent of Maintenance.



T. & N. O. Railway Depot, Temagami, Ontario, September, 1917.

MOTIVE P

S. B. CLEMENT, Esq.,
C. E. & S. of M.

DEAR SIR,—Beg to sub
Department for the year en

New Locomotives:

In November, 1916, t
delivered the remaining for
1916. A general descripti
the Motive Power and Car

During the year that
very satisfactory.

Alterations and Repairs to

With the view of effec
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thoroughly proven their n

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The matter has been
the Canadian Locomotive
ten-wheel-engines with th
complete overhauling.

New Freight Cars:

In May, contract was
for 100 box cars, deliver
are to be 36'-80,000 lbs.
They will be equipped w
roofs.

New Conductor's Caboose

During May, June
the six caboose cars on t

These cabooses are
steel underframes and e

NIPISSING CENTRAL RAILWAY

ANNUAL REPORT CHIEF ENGINEER AND SUPERINTENDENT OF MAINTENANCE, NIPISSING CENTRAL RAILWAY,

Year ended October 31st, 1916,

NORTH BAY, ONTARIO, December 7th, 1916.

W. H. MAUND, Esq.,

Secretary-Treasurer,

Toronto, Ontario.

DEAR SIR,—I beg to submit my annual report, as Chief Engineer and Superintendent of Maintenance, for the fiscal year ended October 31st, 1916.

Mileage.

The mileage now operated is as follows:—

Main Track:

Owned and maintained by Company	4.92 miles
Lease from T. & N. O. Rly. Commission:	
Maintained by Company	5.28 miles
Maintained by Commission	5.17 miles
	15.37 miles

Sidings and Spurs:

Sidings on that part of the line owned by	
T. & N. O. Commission:	
Yard Tracks and Sidings	1.65 miles
Private Sidings	1.16 miles
	2.81 miles

Sidings on that part of the line owned by
N. C. Rly.:

Company Spurs	2.00 miles
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Total Track	20.18 miles
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Equipment.

Rolling equipment consists of the following:

- 8 Electric Motor Passenger Cars.
- 1 Combination Switching Locomotive, Express Car and Snow Plow.
- 2 Freight Cars.

PART OF MR. W. H. MAUND, CHIEF ENGINEER AND SUPERINTENDENT OF MAINTENANCE

Additions to Road and Equipment.

During the year a spur track was laid on to the new Government dock at Haileybury 500 feet long and a private siding was installed for the Right-of-Way Mines at Cobalt 262 feet long.

No additions to the rolling stock during the year.

Maintenance.

The property of the railway, including roadbed, track, buildings, electrical equipment and rolling stock has all been maintained in good condition.

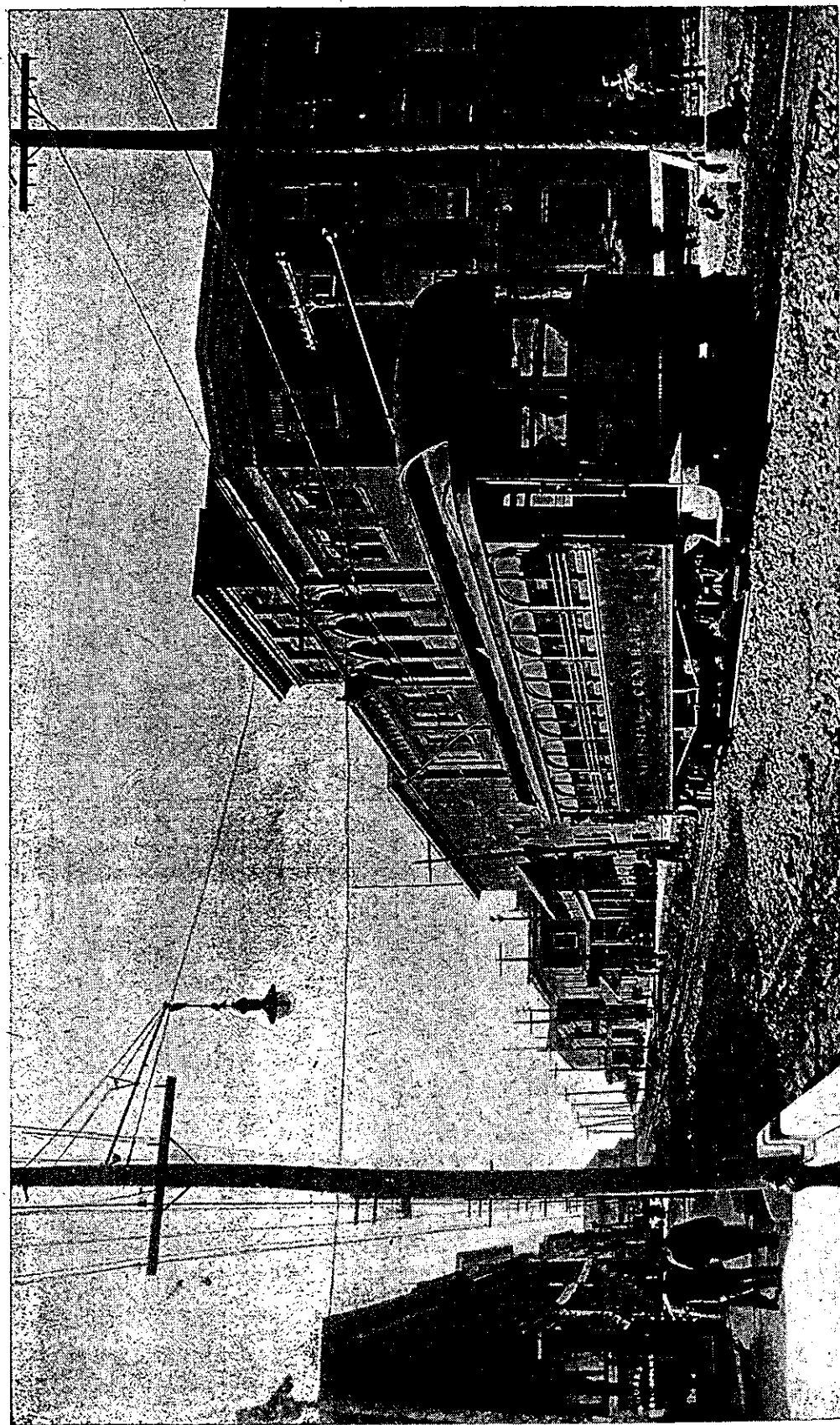
Accidents.

The only accident occurring on the Nipissing Central Railway during the year was:

January 30th, 1916. Harry Andrews, line foreman, North Cobalt, while operating snow plow caught the thumb of his left hand in piston of plow and it was necessary to amputate it at the first joint.

Respectfully submitted,

S. B. CLEMENT.



Street view, Haileybury, Ontario, showing electric car of Nipissing Central Railway Company.

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NIPISSING CENTRAL RAILWAY.

Fire at Car Barn.

On March 4th, 1917, during the early hours of the morning, fire destroyed the north end of the car barn and five electric passenger cars, and one partially burned.

During period of reconstruction and until new cars—which were purchased in St. Louis—were received, the service was of necessity greatly restricted.

This period, however, was of short duration and full schedule was under operation within two weeks. Loss and damage under this heading as recorded below:—

Property.	Original Value.	Salvage.	Depreciation.	Net Loss.	Insurance Recoverable.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Car Barn.....	34,980 75	23,194 98	2,623 56	9,162 21	9,162 21
Building Contents....	787 80	.....	171 67	616 13	616 13
Car No. 2.....	7,800 00	1,157 84	2,314 00	4,328 16	4,000 00
“ 6.....	7,800 00	4,664 50	2,314 00	821 50	821 50
“ 14.....	8,878 64	1,424 84	1,450 18	6,003 62	5,000 00
“ 16.....	8,878 64	1,424 84	1,450 18	6,003 62	5,000 00
“ 18.....	10,833 60	2,744 41	1,047 25	7,041 94	6,000 00
“ 20.....	10,833 60	2,744 41	1,047 25	7,041 94	6,000 00
	90,793 03	37,355 82	12,418 09	41,019 12	36,599 84

Original property value.....\$90,793 03

Salvage.....\$37,355 82

Depreciation.....12,418 09

49,773 91

Net Loss.....\$41,019 12

Insurance recoverable.....36,599 84

N. C. Ry. uncontrollable loss.....\$4,419 28

W. H. MAUND, Esq.,

Secretary-Treasurer,

Toronto, Ont.

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Mileage.

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Main Track—

Owned and maintained by Company 4.92 miles

Leased from T. & N. O. Ry. Commission:

Maintained by Company 5.28 “

Maintained by Commission 5.17 “

15.37 miles

MOTIVE POWER AND CAR DEPARTMENT.

S. B. CLEMENT, Esq.,
C. E. & S. of M.

DEAR SIR,—Beg to submit the following report of the Motive Power and Car Department for the year ending October 31st, 1917.

New Locomotives:

In November, 1916, the Canadian Locomotive Company, Limited, Kingston, delivered the remaining four "Mikado" type locomotives on the contract of March, 1916. A general description of these engines was included in the annual report of the Motive Power and Car Department for 1916.

During the year that these locomotives have been in service they have proven very satisfactory.

Alterations and Repairs to Locomotives:

With the view of effecting all possible economy in the matter of fuel consumption, it has been the intention for some time to proceed with the installation of superheaters, brick arches, etc., on the older types of locomotives. All the engines built for the road since 1909 have been equipped with these devices which have thoroughly proven their merit.

Owing to labor conditions and volume of other work it has been impossible to go ahead with these changes at our shops here.

The matter has been taken up with the different locomotive manufacturers and the Canadian Locomotive Company have undertaken the work of equipping eight ten-wheel engines with these appliances, and at the same time, give these engines a complete overhauling.

New Freight Cars:

In May, contract was given the Canadian Car and Foundry Company, Limited, for 100 box cars, delivery of same to be made towards end of this year. These are to be 36'-80,000 lbs. capacity cars with steel framing and single sheathing. They will be equipped with Arch Bar trucks, friction draft gear, and inside metal roofs.

New Conductor's Caboose Cars:

During May, June and July, the Preston Car and Coach Company delivered the six caboose cars on their contract of June, 1916.

These cabooses are the T. & N. O. standard type, 29' long over end sills with steel underframes and equalized pedestal trucks.

New Machine Tools:

The following machinery has been added to the equipment of the Machine Shops at North Bay Junction:

One No. 6, type B, pneumatic hammer; one 200-ton electric hoist; one centering machine; one 24-inch shaper; one 8-inch power hack saw; one tube cleaning machine; one safe end machine; one tube welding furnace; one combination hot saw and tube expanding machine; one tube welding machine; one No. 02 stationary forge; one 5-ton hand travelling crane; one oil and waste reclaiming outfit, consisting of one 20-inch waste machine and one 15-inch centrifugal oil separator.

Summary of Extensive Repairs to Locomotives:

Since November 1st, 1916, the following locomotives have been through our shops at North Bay Junction for repairs:—

Given General Repair:—106, 108, 124, 131, 133, 137, 138, 150, 151.

Given Heavy Repair:—101, 111, 113, 117, 119, 123, 130, 134, 135, 136.

Given Light Repair:—106, 109, 123, 127, 133, 139, 145.

Note: The term "General Repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuilt. Heavy repair refers to cases where an engine has received such repairs as driving tires turned, driving boxes renewed, valves, piston rings, and side rod bushings renewed. Light repair refers to cases where an engine has received minor repair such as renewal of side rod bushings, piston rings and valve rings.

All requirements of the Dominion Railway Commission in regard to washing out and testing boilers, testing stay-bolts, examining nettings and dampers, etc., have been fully complied with, and during the summer months periodical inspection of all fire protective appliances on engines has been made by a Government Inspector.

Engine Despatch:

Statement showing the number of engines despatched from different terminal and divisional points during the year:—

Station.	Number of Engines Despatched.
North Bay Jct.	6,315
Elk Lake	391
Englehart	4,391
Iroquois Falls	362
Timmins	773
Cochrane	1,745
Total	13,977

The motive power has been generally assigned during the year as follows:—

Class of Service.	Number of Engines.
Passenger	15
Freight	28
Work	2
Switching	4

Locomotive Mileage:

The following statement shows the mileage run by the locomotives during the year:—

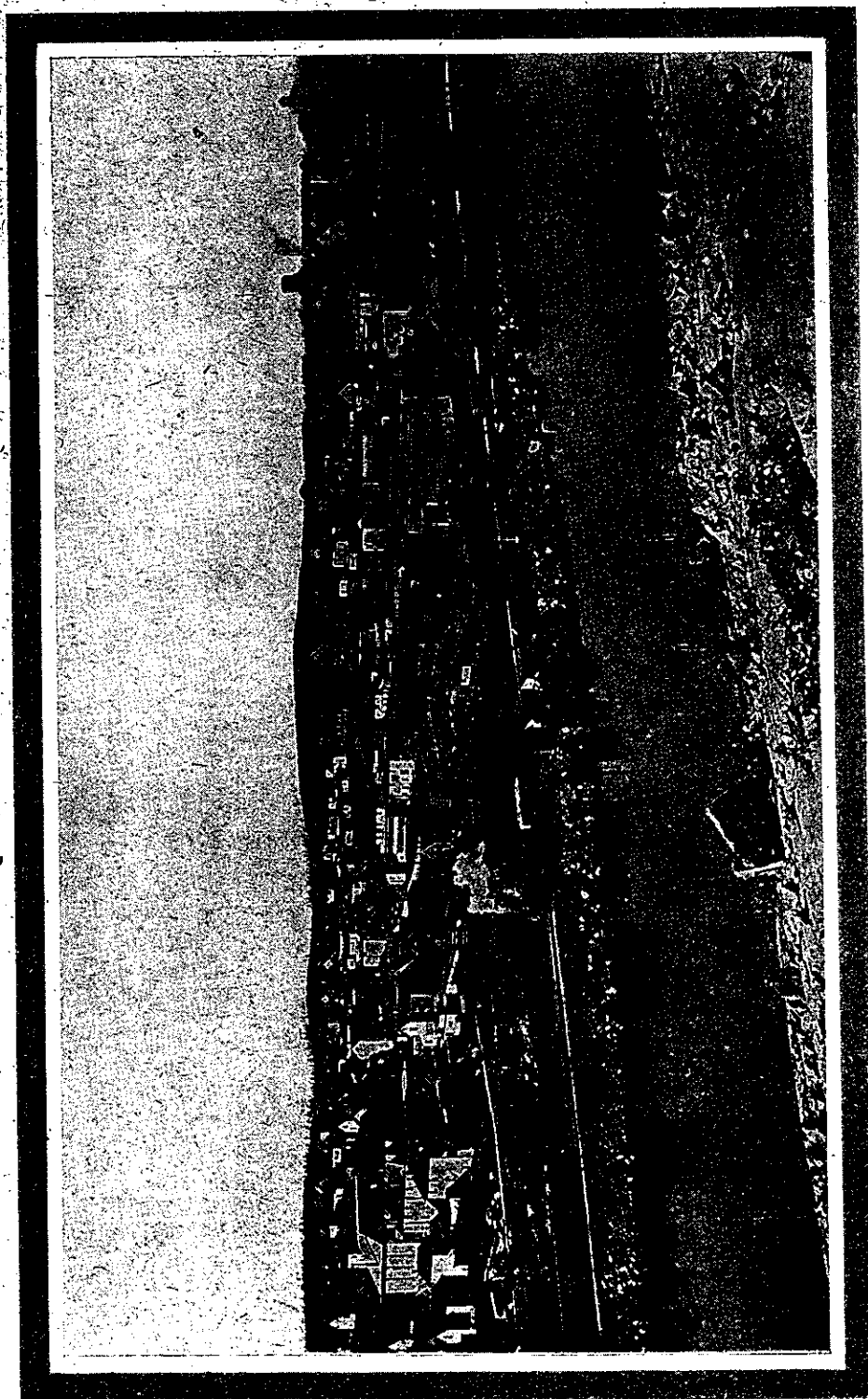
Engine No.	Mileage
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Repairs to Passenger Equipment:

Extensive repairs have been made in the shops as follows:—

Class of Car.	Number of Cars.
First Class
Second Class
Baggage and Express
Mail and Express
Parlor Cafe Cars

Note.—The term "General Repair" has been used for the interior and rebuilt.



View of part of Town of Cobalt, Ontario, 1917.

Preliminary Report Northern Ontario Northern C

By

The mining industry. While gold and silver production in the actual year offset the difference of \$25,000,000, an increase in order to meet the gold and silver in the silver camp by a last year many of out this winter, profit ahead.

In both the gold and promising, capital is re

The statistics of (calendar year, issued by for the corresponding p

1916	.....
1917	.....

Porcupine:

The gold production, approximately \$9,000,000, and

Hollinger.
McIntyre.
Dome.
Porcupine C

With the continuation of the cost of producing the Dome mine, so the decided to close the mill is closed down and shaft to the 1,500 ft.

The favorable developments, as well as the information to show that the ore indications point to t Outside of the p of the camp both no

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lectric hoist; one center-
saw; one tube cleaning
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waste reclaiming outfit,
centrifugal oil separator.

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130, 134, 135, 136.
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Number of Engines Despatched.	
.....	6,315
.....	391
.....	4,391
.....	362
.....	773
.....	1,745
.....	13,977

g the year as follows:—

Number of Engines.	
.....	15
.....	28
.....	2
.....	4

Locomotive Mileage:

The following statement shows mileage made by locomotives belonging to this railway during the year:—

Engine No.	Miles Run.
101.....	24,762
103.....	28,294
104.....	8,184
105.....	24,643
106.....	22,751
107.....	21,539
108.....	22,528
109.....	34,109
110.....	27,030
111.....	19,908
112.....	36,387
113.....	30,356
114.....	25,203
115.....	12,164
116.....	9,794
117.....	22,900
118.....	26,484
119.....	24,292
120.....	6,702
121.....	33,357
122.....	36,032
123.....	26,858
124.....	7,917
125.....	31,895
126.....	21,617
127.....	31,046
128.....	37,552
129.....	16,334
130.....	15,362
131.....	2,637
132.....	16,603
133.....	33,876
134.....	32,569
135.....	53,216
136.....	48,777
137.....	31,306
138.....	22,534
139.....	26,683
140.....	27,227
141.....	35,249
142.....	33,092
143.....	46,601
144.....	32,509
145.....	39,445
146.....	37,979
147.....	30,579
150.....	28,098
151.....	20,130
152.....	35,635
153.....	
	1,320,745

Repairs to Passenger Equipment:

Extensive repairs have been made to passenger equipment at North Bay Junction shops as follows:—

Class of Car.	General Repair.	Light Repair.
First Class	1	8
Second Class	1	10
Baggage and Express		3
Mail and Express	1	3
Parlor Cafe Cars	1	1

NOTE.—The Term "General Repair" as applied above refers to cases where a coach has had the interior and exterior finish of car removed, framing refitted, and trucks rebuilt.

Brakemen.—Continued.

Peden, A.	Brakeman	\$891 29
Belec, A.	"	750 95
Lewis, W. L.	"	838 37
Bourette, W. J.	"	732 67
Kennedy, J.	"	1,025 90
Denault, W.	"	1,199 28
Thom, W.	"	692 94
McArthur, N. R.	"	1,081 21
Eheler, E. G.	"	1,002 04
Fisher, W.	"	1,056 25
Childerhose, W.	"	1,459 32
O'Connell, J.	"	240 65
Irvine, A.	"	1,239 00
Keats, W.	"	254 04
Sharpe, R. M.	"	176 57
Biers, J.	"	1,061 40
Wagner, H. W.	"	1,019 97
Croghan, J. B.	"	144 82
Graham, W. A.	"	53 95
Traverse, F.	"	143 73
Johnston, A.	"	1,147 06
Castor, D.	"	319 29
Brown, M.	"	376 81
McCarthy, J.	"	214 91
Mayhew, W. J.	"	19 29
Barrett, P. J.	"	745 95
Banks, R.	"	1,072 16
McMahon, F.	"	692 51
Connell, R. T.	"	809 71
Archer, H. A.	"	55 30
Sullivan, H.	"	205 16
Cameron, A.	"	1,178 65
Brennan, L.	"	93 75
Lavoys, J.	"	471 80
Cameron, E. M.	"	644 17
Nixon, W.	"	7 93
Johnston, R. A.	"	18 79
Samler, W.	"	186 72
Conroy, J. A.	"	698 96
Lillie, O.	"	67 70
Leckie, R.	"	942 95
McDonald, J.	"	188 60
St. Louis, F.	"	940 06
Leckie, J. W.	"	64 78
Loney, W.	"	498 38
Manning, W.	"	79 44
Chambers, A. J.	"	682 31
McAughey, T. J.	"	622 55
Johnston, I. W.	"	544 35
Spence, E. J.	"	587 89
Empie, B. E.	"	43 61
Green, D.	"	169 02
Sommerville, J.	"	137 05
McAuley, N. J.	"	107 28
Biglow, J.	"	77 25
Kerr, B. E.	"	34 48
Jarvis, A.	"	14 94
Thompson, G.	"	4 62

\$98,176 48

Engineers.

Morgan, F.	Engineer	\$2,152 58
Shaw, L. G.	"	2,077 15
Donohue, J.	"	1,889 38
Fry, J.	"	2,065 05

Engineers.—Continued.

McLeod, A.	Engineer	\$2,047 30
Coombs, G.	"	2,080 07
Thomas, W.	"	1,471 07
Ross, W.	"	2,209 84
Holland, J.	"	1,492 80
Newman, A.	"	1,667 80
Johnston, J. A.	"	1,830 59
Millman, W. C.	"	1,860 89
Wilson, J. T.	"	2,479 22
McMillan, N.	"	2,640 47
Currie, N.	"	635 31
Copeland, J. E.	"	1,402 86
Johnston, J. C.	"	1,905 97
Hill, T. H.	"	2,132 11
Ward, A.	"	1,912 19
McKenzie, H. W.	"	1,780 60
McElhaney, H.	"	2,633 58
Thomas, F.	"	2,006 55
Filiatrault, Z. E.	"	1,978 33
Plaus, W.	"	1,966 19
Nornabell, E. A.	"	1,911 97
Kirk, F. G.	"	1,687 86
Langlois, J.	"	1,592 11
Nolan, P. B.	"	1,817 65
Durkin, J. T.	"	2,520 80
Hermeston, H.	"	1,772 80
McGovern, H. E.	"	858 54
Morris, J.	"	1,636 23
Bedard, S.	"	1,987 53
Leishman, E. G.	"	2,068 21
Reynolds, H.	"	1,922 94
Nudds, G.	"	903 90
Biggs, J.	"	1,666 90
Newman, S. B.	"	1,817 21
McEwan, S.	"	883 37
Connell, W. D.	"	689 22
Moore, A.	"	352 15
Jackson, I.	"	1,932 80
Tripp, G.	"	766 06
McMenemy, A.	"	1,518 94
McElhaney, A.	"	1,680 66
Lackie, S.	"	2,145 19
Vincent, R.	"	562 27
McKerrow, J. E.	"	1,990 49
McKenzie, A. B.	"	285 90
Beauchamp, H.	"	27 37
McLeod, J. M.	"	810 71
Lewis, H.	"	76 99
McCallum, J.	"	32 47
Brooks, G.	"	5 66
Vernon, A.	"	5 66

\$84,298 46

Firemen.

McElhaney, A.	Fireman	\$86 25
McMenemy, A.	"	33 71
Moore, A.	"	900 83
Lewis, H.	"	1,504 78
McKenzie, A. B.	"	998 83
Biers, G.	"	1,240 48
Beauchamp, H.	"	1,367 67
Muldoon, T.	"	1,237 76
Woollings, T.	"	1,017 41
McKenney, J.	"	1,244 72
Dods, J.	"	1,417 23

Gentile, A.
 Byers, P.
 Brooks, G.
 Kelly, H.
 Tripp, G.
 Nudds, G.
 Anderson, J.
 Vernon, A.
 Savard, E.
 McDonald, M. J.
 Bebee, T. A.
 Drury, H. M.
 Chambers, J. W.
 McLennan, E.
 Romaine, D. C.
 Vinette, D.
 Woods, W.
 Humphrey, W.
 Quinn, D.
 Ryan, J.
 Quinn, P.
 Gard, W. I.
 Clark, F.
 Mahaffy, A. W.
 Vincent, R.
 McEwan, S.
 Brooks, A. W.
 Floyd, E.
 Haskins, G. K.
 McKerrow, J. E.
 McKenzie, H. W.
 Arquette, S.
 Jackson, I.
 McLeod, J. M.
 Pepin, A.
 Fox, A. J.
 Cameron, H.
 Brooks, S.
 Murray, W.
 Woods, A.
 Vreeland, C.
 Beasley, W.
 Brown, F. J.
 Smith, F.
 Britton, L.
 Empie, C.
 McAuley, J.
 Watters, P. A.
 Lacey, C. F.
 Vincent, R.
 Lind, T.
 Carr, H.
 Tuck, A.
 Porter, T.
 Brown, S.
 McDonald, K.
 Bellevue, J.
 Hamilton, J.
 McAllister, T. I.
 Hermeston, G.
 Cragg, L.
 Legary, J.
 Sasseville, P.
 Kay, G.
 Levell, A.
 La'imer, W.

Firemen.—Continued.

Gentile, A.	Fireman	\$1,144 73
Byers, P.	"	1,398 94
Brooks, G.	"	1,232 84
Kelly, H.	"	1,126 33
Tripp, G.	"	1,017 49
Nudds, G.	"	234 76
Anderson, J.	"	1,100 44
Vernon, A.	"	1,063 80
Savard, E.	"	1,509 06
McDonald, M. J.	"	1,222 68
Bebee, T. A.	"	1,410 05
Drury, H. M.	"	832 19
Chambers, J. W.	"	1,110 01
McLennan, E.	"	1,061 60
Romaine, D. C.	"	908 80
Vinette, D.	"	1,120 14
Woods, W.	"	209 11
Humphrey, W.	"	1,220 02
Quinn, D.	"	1,214 84
Ryan, J.	"	978 82
Quinn, P.	"	1,382 47
Gard, W. I.	"	1,270 13
Clark, F.	"	1,153 75
Mahaffy, A. W.	"	1,120 53
Vincent, R.	"	905 18
McEwan, S.	"	747 87
Brooks, A. W.	"	1,016 92
Floyd, E.	"	723 30
Haskins, G. K.	"	707 34
McKerrow, J. E.	"	154 14
McKenzie, H. W.	"	144 09
Arquette, S.	"	212 28
Jackson, I.	"	53
McLeod, J. M.	"	779 05
Pepin, A.	"	30 16
Fox, A. J.	"	56 04
Cameron, H.	"	325 88
Brooks, S.	"	30 85
Murray, W.	"	772 55
Woods, A.	"	984 21
Vreeland, C.	"	1,116 75
Beasley, W.	"	360 93
Brown, F. J.	"	47 88
Smith, F.	"	53 03
Britton, L.	"	20 28
Empie, C.	"	1,102 55
McAuley, J.	"	104 92
Watters, P. A.	"	274 79
Lacey, C. F.	"	20 34
Vincent, R.	"	80 19
Lind, T.	"	741 46
Carr, H.	"	69 63
Tuck, A.	"	3 08
Porter, T.	"	19 42
Brown, S.	"	610 80
McDonald, K.	"	4 35
Belleveau, J.	"	462 35
Hamilton, J.	"	637 99
McAllister, T. E.	"	226 22
Hermeston, G. H.	"	207 32
Cragg, L.	"	112 21
Legary, J.	"	102 02
Sasseville, P.	"	101 78
Kay, G.	"	445 87
Levell, A.	"	30 48
Laflimer, W.	"	45 74

Firemen.—Continued.

Ley, W.	Fireman	\$169 27
Aubin, E. D.	"	15 92
Sholtz, O.	"	243 92
Westfall, G.	"	24 86
Gosselin, H.	"	131 21
Landers, J.	"	71 80
Folsy, T.	"	60 65
Ames, F.	"	110 88
Pringle, A.	"	134 89
Landers, M. P.	"	518 99
Waldron, G.	"	13 52
McKenzie, H. W.	"	17 74
Cameron, H.	"	23 78
Biggs, J.	"	222 84
Solway, E.	"	59
Thompson, H.	"	2 99
Bedard, S.	"	98 53
Weiss, G.	"	3 55
		\$53,556 90

Telegraph and Telephone Department.

Kelly, W. J.	S. T. and T.	\$2,020 00.
Brown, C. A.	Clerk	640 00
Ferguson, L. M.	Inspector	683 33
Picard, P.	Lineman	1,107 47
Imbeault, E.	"	69 43
Lynch, W.	"	22 00
		\$4,542 23

*Commercial Telegraph and Telephone Offices.**Cobalt.*

Bunyan, Miss M.	Operator	\$932 25
Hann, R. C.	"	176 36
Goldforbe, J.	"	53 47
Asseltine, Miss G.	"	76 13
Guertin, Miss F. M.	"	779 89
Chessar, A.	"	25 00
Donaldson, W.	Messenger	42
Simpkins, W.	"	90 00
Simpkins, J. H.	"	55 00
Buray, J.	"	175 00
O'Brien, M. L.	Accountant	81 79
		\$2,445 31

Elk Lake and Gowganda.

Tremblay, Miss E.	Operator	\$197 17
Craig, W. H.	"	205 00
Craig, Miss M.	"	40 00
Stubinski, Miss J.	"	222 83
Sullivan, M. J.	Lineman	1,054 20
		\$1,719 20

Cochrane.

Shane, J. W.	Operator	\$97 06
Bunyan, Miss M.	"	74 67
Burdock, H. G.	"	17 42
Hann, R. C.	"	871 62
Cole, W. C.	"	52 26
Schultz, J. B.	"	18 19
Brown, T. W.	"	416 67

Munns, Miss I. ...
Hogan, Miss D. M.
Jamieson, Miss E.
Waldron, W.

McLellan, J.
Loisel, S.
Imbeault, E.
Toupin, P.
McInnis, J.
Other Linemen, L.

Office

Clement, S. B. ...
Dickson, G. H. ...
Burt, T. K.
McRoberts, A. A.
Johnston, W. I. ...
Young, J.
McIntosh, R. M. ...
O'Donnell, J. A. ...
Morgan, Miss N.
Lemieux, Miss G.
Simpson, Miss D.
Imeson, W. C. ...
Martin, Miss A. ...
Palmer, Miss M.
Griffiths, Miss E.
Armstrong, T. ...

Kerrigan, D. ...
Ward, W.
Garovitch, M. ...
Preston, B.
Simpkins, A.
Beaupre, W.
Clark, A.
Shellswell, J. ...
Marchand, D. ...
Simpkins, P.
Gray, W.
Jarvie, E.
Fulford, A.
Phillips, W. ...
Cannon, W.
Cannon, H. A. ...
Byerlay, G. ...
Simpkins, A. ...
Hounslow, F. ...

Ross, T. R. ...
Douglass, J. J.
Rodgers, H. L.
Battley, C. A. ...
McMillan, W. ...

is, that if it were possible to
 Workmen's Compensation
 the seven days as it now
 more justice for both working-

truly,
 (igned) A. H. McMURCHY,
 Chief Medical Officer.

R DEPARTMENT

eport of the Motive Power and
 ober 31st, 1921:

senger locomotives, four Mikado
 ing engines were received from
 arious types of locomotives is

city of these new passenger and
 aid of a dynamometer car, and

for the sale of seven ten-wheel
 6, 107 and 108. These engines
 and on account of their not being
 re being replaced by the heavier
 scribed above.

installed in the shops at North
 e 32 inch shaper, and one 80 inch

or-watching results of the change
 The lamps stood the winter
 tenance, and the equipment used
 with arc headlights.
 arly equipped, and in addition the
 The railway now has no arc lights

w extension to office at North Bay

for light and power and electrical

ining of electric lights at all points
 hart, Cochrane, Timmins, Porquiss

N. O. Railway took over all work
 despatching, inspection and repairs
 action.

Railway has housed, repaired, and
 nspected and repaired all coaches
 aned their passenger equipment;
 equipment, and looked after their
 Bay Junction.

The bills covering above are being looked after by the various
 departments affected.

G. T. Railway Inspection, Etc.

On July 16th, 1921, the T. & N. O. Railway agreed to take over the
 inspection of freight and passenger equipment, the repairing of coaches,
 and cleaning same at North Bay Junction for the Grand Trunk Railway,
 and since that time, this work is being done by this Railway's staff, in
 addition to the repairing of their freight equipment, which has already
 been done for a number of years.
 Bills are being rendered monthly in connection with above.

Engine Despatch

Statement showing the number of engines despatched from the
 different terminal and divisional points during the year:

Station	Number of Engines Despatched
North Bay Junction	7,817
Elk Lake	315
Englehart	5,853
Iroquois Falls	670
Timmins	1,048
Cochrane	2,233
Total	17,936

The motive has been generally assigned during the year as follows:

Class of Service	Number of Engines
Passenger	16
Freight	27
Work	3
Switching	6

Locomotive Mileage

The following statement shows the mileage made by locomotives
 belonging to this railway during the year:

Engine Number	Mileage	Engine Number	Mileage
101	14,053	135	38,877
102	13,258	136	42,316
103	14,589	137	32,711
107	21,158	138	26,650
109	36,346	139	37,966
110	43,645	140	39,607
111	28,299	141	41,751
112	34,138	142	41,021
113	47,967	143	34,780
114	27,963	144	37,927
115	35,966	145	36,140
116	23,428	146	34,650
117	18,883	147	10,174
118	29,996	148	10,005
119	31,858	149	3,558
120	26,838	150	13,416
121	28,232	151	24,868
122	29,155	152	68,435
123	24,601	153	27,044
125	33,655	154	23,087
126	33,438	155	16,104
127	31,238	156	20,204
128	29,291	157	22,346
129	30,785	158	21,874
130	22,317	159	22,131
131	32,247	160	19,826
132	56,993		
133	54,455		
134			
		Total	1,602,269

The term "Light Repair" applies to coaches having seat arms scraped and sanded, interior of car varnished, outside of car washed down and given two coats of varnish; trucks repaired.

Each first and second class coach given a general repair has been equipped with steel side sills, extra wooden sills, new friction buffers and draft gear, vestibule curtains and tail gates. The mail and express cars have been equipped with steel sills, new friction buffers and draft gear.

Parlor cafe car "Wasaksima" is now in the shop undergoing general repairs, and is being equipped with electric lighting system of the Safety Car Heating and Lighting Company's make with Edison storage batteries.

In addition to the above the official car "The Whitney" has been given a general repair and equipped with Commonwealth Company's cast steel six-wheel trucks, thus making all six-wheel passenger car trucks in use on this railway of one standard type.

Coach Cleaning:

Statement showing the number of coaches cleaned at the different stations during the year:—

Station.	Number of Coaches Cleaned.
North Bay Junction	2,878
Elk Lake	628
Englehart	1,198
Timmins	1,441
Iroquois Falls	628
Cochrane	2,493
Total	9,266

Repairs to Conductor's Vans:

During the past year fourteen of our conductor's vans have been through the shop for general overhauling and repairs.

Repairs to Freight and Work Equipment:

The staff maintained on freight car repair work in Carpenter Shop at North Bay Junction has rebuilt 17 flat cars, made heavy repairs such as new sills, new decking, trucks overhauled, and etc., to 34 flat cars, 5 box cars, and one stock car. On the repair track 28 flat cars have had new sills applied and 15 cars have been redecked. In addition to this, 814 T. & N. O. freight cars, 2,717 coaches and 18,678 foreign cars have been repaired and released from repair track at North Bay Junction.

Bills have been rendered against foreign roads for repairs to cars under rules adopted by the Master Car Builders' Association. Monthly bills have also been rendered against the Grand Trunk Railway for repairs to cars under terms and conditions of Grand Trunk Running Rights Agreement.

All work equipment such as snow ploughs, snow flangers, wrecking outfits, steam shovels, and boarding cars, etc., have been overhauled and given such repairs as were required to keep them in serviceable condition.

At different times during the year our wrecking outfit has been loaned to outside companies for which proper bill has been rendered in each instance.

Steel Tyres Turned and Wheels Applied Rolling Stock:

During the year forty-four pairs of driving wheels, one pair of trailing truck wheels, eighty-one pairs of coach wheels, forty-three pairs of tender wheels, thirty-one pairs of engine truck wheels, and sixteen pairs of street car wheels have been turned at North Bay Junction.

The following new tyres were applied to wheels: Thirty-four driving wheel tyres, twenty engine truck tyres, eight tyres for street car wheels.

One thousand four hundred and seventy-eight cast iron wheels have been pressed off axles, new wheels bored and mounted on these axles.

Sixty-nine pairs of wheels have been changed under passenger equipment and bad tyres turned.

New wheels have been applied to T. & N. O. freight and work equipment as follows:—

- 14 pairs new 33" C.I. wheels on 3½ x 7" axles.
- 1,242 pairs new 33" C.I. wheels on 4¼ x 8" axles.
- 636 pairs new 33" C.I. wheels on 5 x 9" axles.
- 255 pairs new 33" C.I. wheels on 5½ x 10" axles.

Rolling Stock Destroyed:

We are glad to report that there have been no serious wrecks and little heavy damage to rolling stock on our line during the past year. T. & N. O. coach No. 112 was destroyed by fire at Englehart, January 14th, 1917; C. & N. W. 114746 by wreck at M.P. 153½, February 7th, 1917; D. P. & I 5154 by wreck at M.P. 222, February 25th, 1917; B. & S. 11346 by wreck at South Gillies, August 3rd, 1917.

In each case of foreign cars destroyed we have settled with owners for depreciated value of cars in accordance with Master Car Builders' regulations.

Seven of our flat cars and two steel underframe box cars have been destroyed on foreign lines and bills have been rendered against such companies covering depreciated value of cars, less value of serviceable parts returned, as per Master Car Builders' rules.

Work Turned Out of Carpenter Shop:

In addition to the regular work in connection with repairs to passenger, freight and work equipment, considerable miscellaneous work has been done in the carpenter shop for other departments, such as dressing lumber, making window framing and stair banisters, conductor's kit boxes, ladders, tool chest, notice frames, gang planks, transfer cases, standard explosive blocking, spot boards, hand sleighs, snow scrapers, flanger markers, station sign boards, bulletin boards, time table racks, barrel skids, repairs to office chairs, desks, cabinets, and platform trucks.

Equipment Owned:

- 45 road locomotives.
- 4 switching locomotives.
- 2 private cars.
- 2 business cars.
- 13 first-class wooden coaches.
- 6 first-class steel coaches.
- 14 second-class wooden coaches.
- 4 second-class steel coaches.
- 2 combination wooden second-class and baggage cars.

- 1 combination wooden first-class and baggage car.
- 1 exhibition car.
- 3 parlor cafe cars.
- 5 wooden baggage and express cars.
- 4 steel baggage and express cars.
- 5 wooden mail and express cars.
- 3 steel mail and express cars.
- 26 conductor's vans.
- 9 stock cars.
- 143 box cars.

ANNUAL REPORT OF CHIEF ENGINEER AND SUPERINTENDENT
OF MAINTENANCE

Mileage and Equipment

There has been no change in the main track mileage during the year, but a small increase in the mileage of yard tracks, spurs and private sidings.

Operated by the Commission:

	Oct. 31, 1919.	Oct. 31, 1918.
First Track	328.50 miles	328.50 miles
Second Track	1.70 "	1.70 "
Yard Tracks and Sidings	100.21 "	99.80 "
Private Sidings	14.41 "	14.09 "
Mattagami River Spur	2.96 " "
	447.78 "	444.09 "

Leased to Grand Trunk Railway:

Nipissing Junction Spur	2.10 "	2.10 "
-------------------------------	--------	--------

Leased to Nipissing Central Railway:

Main Track	10.45 "	10.45 "
Yard Tracks and Sidings	1.65 "	1.65 "
Private Sidings	1.10 "	1.06 "
	13.20 "	13.16 "

Details of all track changes are shown in statements included in this report. The equipment owned by the Commission consists of the following:—

	Oct. 31, 1919.	Oct. 31, 1918.
Locomotives	49	49
Passenger Cars	65	65
Freight Cars	596	660
Work Cars	165	118

Main Line Revision:

The tracklaying and ballasting of the revision between M.P. 63 and M.P. 66.5 was completed, and opened for traffic on July 17th, 1919. This revision makes a small reduction in distance, reduces the northbound grades from 1 per cent. to 0.4 per cent., and southbound grades from 1 per cent. to level, number of curves 6, and maximum curvature from 7 deg. to 3 deg., and total curvature by 309 deg. 57 ft.

References have been made in previous reports to revisions of line from M.P. 54 to M.P. 55; and at M.P. 81, but owing to the pressure of other work, it was not possible to do anything at these two revisions during the year.

Kirkland Lake Branch:

Tenders were called for the construction of a branch line, six miles in length, from Swastika to the Kirkland Lake Mining Camp, but at the suggestion of

leading mining interests in the camp, the construction of the branch was deferred, pending an investigation of the relative advantages of motor and steam railway transportation. It was finally decided that the welfare of the camp would be better served by the construction of good macadam roads, which are now being built by the Northern Development Branch.

Mattagami River Spur:

For some years, the construction of a spur line from Timmins to the Mattagami River, for the handling of the large quantity of forest products which annually come down this river, has been under consideration. The amount of this traffic has been steadily increasing, until this year the construction of this spur seemed justifiable. Accordingly, final location surveys were made and tenders called for the work. The lowest tender, that of Angus Sinclair, was accepted, and a formal contract was entered into by the Commission and Mr. Sinclair. Work was started the end of May, and the spur was opened for traffic on August 27th. This spur line is 2.96 miles long, with a maximum curvature of 12 deg. and 2 per cent. grades compensated for curvature. Besides the construction of the spur line itself, the necessary sidings were provided for the handling of the traffic at the river.

Exploratory Surveys—Cochrane to James Bay:

A survey party, in charge of Mr. W. R. Maher, left Cochrane on May 13, 1919, to explore for a railway route between Cochrane and Moose Factory, and to collect information relating to the water powers and the forest, mineral and agricultural resources of the intervening country. A few days after leaving Cochrane, two members of the party, Mr. Kenneth Ord, of Cochrane, and Mr. D. W. T. Smith, of Newmarket, were drowned, through the upsetting of canoes in the Abitibi River. The bodies were recovered, brought back to Cochrane and returned to their homes for burial. It was the intention that these exploratory surveys should be carried down the Abitibi River as far as the confluence with the Moose River, and thence down the Moose to Moose Factory, if possible. The party had carefully worked its way down the Abitibi River, as far as Speight's Base Line, when it was necessary, on account of the difficulty of keeping Indian packers, to return to Cochrane, which was reached on September 14th.

Although the party did not cover all the ground anticipated, a large quantity of valuable and interesting information was obtained to supplement that which was available from previous explorations, conducted by the T. & N. O. Railway Commission, the Geological Survey of Canada and the Ontario Bureau of Mines. This data is now being compiled and will appear in a special report at an early date.

Additions to Road and Equipment

Although the supply of labour and materials during the year was not as plentiful as desired, yet a large amount of work was carried out for the betterment of the property. The most important of these works are given as follows:—

North Bay Junction

The enlargement of the interchange for the fiscal year, has been completed and is now proceeding enlargement of the interchange.

The quantity of material steadily increasing, necessitating considerable additions to the stockpile.

Plans were prepared for the tenderers being Jeffrey.

These additions to the construction, to the material, with galvanizing and a 60 foot by 30 foot store. It is completed of January, 1920.

A second story to provide additional storage for this addition were.

The various shops were covered.

An extension 5 feet roof and walls, with machinery installed.

Feronia:

The meeting trestle constructed for the interchange.

Mileage 15.3:

A spur siding, constructed for Lindsay.

Mulock:

The meeting trestle constructed for the interchange.

Mileage 20.5:

A private siding at Bay, for loading of material.

Otter:

The station was constructed for the section force.

North Bay Junction:

The enlargement of the yard under construction, at the close of the last fiscal year, has been partially completed, the three transfer tracks for the C.N.R. interchange and one of the storage sidings having been put into service. Work is now proceeding on the laying of the two remaining sidings to complete this enlargement of the yard.

The quantity of materials handled by the Stores Department has been steadily increasing to such an extent that it has been necessary to make considerable additions to the buildings and facilities for handling these materials.

Plans were prepared and tenders called for these additions, the successful tenderers being Jeffrey and Stevens of North Bay, who now have the work under way.

These additions consist of a 50 foot by 30 foot extension, in fireproof construction, to the main stores; a 100 foot by 30 foot extension, in frame construction, with galvanized iron roof, and walls to the Road Department material stores, and a 60 foot by 30 foot extension, in similar construction, to the pipe and castings store. It is expected that all this work will be completed about the first of January, 1920.

A second story addition, 40 feet by 30 feet, was added to the freight shed, to provide additional office accommodation. The heating and plumbing systems for this addition were installed by F. R. Gibson, of Haileybury.

The various steam mains between the different buildings in the vicinity of the shops were covered with asbestos insulation.

An extension 56 feet by 40 feet, in frame construction, with galvanized iron roof and walls, was made to the B. & B. Department shop, and the necessary machinery installed for the dressing of lumber, etc., used by this department.

Feronia:

The meeting track was extended 574 feet and a side track, 805 feet long, constructed for the loading of forest products, etc.

Mileage 15.3:

A spur siding, 307.5 feet long, was constructed, under private siding agreement, for Lindsay and McCluskey, for the handling of forest products.

Mulock:

The meeting track was extended 861 feet and a side track, 701 feet long, constructed for the loading of forest products, etc.

Mileage 20.5:

A private siding 372.0 feet long was constructed for the Town of North Bay, for loading of firewood.

Otter:

The station was moved from Diver to Otter, and fitted up for living quarters for the section forces.

Cochrane:

A transfer platform, 102 feet long, and a car repairer's building, 20 feet by 36 feet, were constructed in connection with the repair tracks, put in last year.

A new brick agent's house is now under construction, by contract.

Iroquois Falls:

A station employees' camp, 18 feet by 24 feet, and a section employees' camp, 14 feet by 18 feet, were built at this point.

An office was built in the end of the freight shed for the shed foreman and an 18 foot by 14 foot extension built to the car repairers' building.

An extension, 16 feet by 30 feet, with canopy, was built to the station for an express office.

McIntosh Springs:

The spur siding at this point was extended 718 feet and made a through meeting track.

Timmins:

A spur siding, 375.5 feet long, was put in for the Imperial Oil Limited, to serve their warehouse, and a siding, 622 feet long, was put in for Bourke, Lindsay & McCluskey, at the Mattagami River, for the loading of ties and logs.

The following public sidings were also constructed at this point: a loading spur, 450 feet long, in Timmins yard, a passing siding, 1,285 feet long, and two spurs, 1,557 feet and 367 feet long at the Mattagami River, for the handling of traffic in ties, logs, etc.

Except where otherwise noted, all the above works were done by the Commission's forces.

Equipment

The steel snow plow, mentioned in last year's report, was delivered by the Canadian Car & Foundry Company.

Twenty-five second-hand Hart cars and 4 second-hand air dump cars were purchased during the year.

A new 20-ton locomotive crane was obtained from the Orton and Steinbrenner Company.

Six 10-wheel type locomotives were fitted with superheaters and brick arches at the shops of the Montreal Locomotive Works.

The annual report of the Master Mechanic, which is transmitted herewith, covers, in detail, the work of the Motive Power and Car Department for the year.

Tie Supply

The Commission entered into contract with Messrs. Reamsbottom & Edwards, of South Porcupine, for the manufacture of ties from timber on the Commission's reservation, in the townships, east and south of Night Hawk Lake.

The following right

Second Division:

Mileage 139.5 to 14
Mileage 213.5 to 22

Total

New standard rig

Second Division:

South of Englehart
Mileage 150 to 153
Mileage 233 to 245
Mileage 250 to 260
Mileage 1.5 to 10.
Mileage 11.75 to 17
Mattagami Spur ...

Total

Private Sidings:

The following sta
the year:—

Location.**Main Line:**

M. 15.3
M. 20.5
M. 49.9
Latchford
Cobalt
M. 207.9

Porcupine Branch:

Timmins
Timmins

Charlton Branch:

M. 0.7

The following i

Location.**Porcupine Branch:**

M. 11:0
South Porcupine

Comparative Statements

The following right of way fence was repaired and renewed:—

Second Division:	
Mileage 139.5 to 145—Both sides.....	11.0 miles
Mileage 213.5 to 227.5—Both sides.....	28.0 "
Total	39.0 "

New standard right of way fencing was constructed as follows:—

Second Division:		90 rods
South of Englehart Bridge		
Mileage 150 to 153.5—Both sides.....	2,367	"
Mileage 233 to 245 —Both sides.....	7,434	"
Mileage 250 to Cochrane—Both sides.....	1,410	"
Mileage 1.5 to 10.25, Porcupine Branch—Both sides.....	5,473	"
Mileage 11.75 to 17.5, Porcupine Branch—Both sides	3,897	"
Mattagami Spur	1,048	"
Total	21,719	"
	or 67.9 miles	

Private Sidings:

The following statement includes all private sidings laid or extended during the year:—

Location.	Name.	Length.	Remarks.
<i>Main Line:</i>			
M. 15.3	Lindsay & McCluskey.....	307.5	For loading wood.
M. 20.5	Town of North Bay	372.0	For loading wood.
M. 49.9	McNamara Lumber Co.	232.0	For loading logs.
Latchford	Conkey & Murphy	826.0	For loading lumber.
Cobalt	Mining Corporation of Canada	550.0	For handling ore.
M. 207.9	R. S. Potter Lumber Co.	198.0	For loading lumber.
<i>Porcupine Branch:</i>			
Timmins	Imperial Oil, Ltd.....	375.5	To serve warehouse.
Timmins	Bourke, Lindsay & McCluskey	622.0	For loading logs.
<i>Charlton Branch:</i>			
M. 0.7	Thos. Woollings	314.0	For loading pulpwood.
		3,797.0	

The following includes all private sidings removed or shortened:—

Location.	Name.	Length.	Remarks.
<i>Porcupine Branch:</i>			
M. 11.0	Monteith Pulp & Timber Co..	253.0	
South Porcupine	Imperial Oil, Ltd.	235.0	
		488.0	

Meeting, Yard and Loading Sidings:

The following new sidings or extensions to existing sidings have been constructed to provide increased facilities at different points:—

Location.	Description.	Length.
		Feet.
North Bay Junction.....	Engine Storage Track	378.0
"	No. 1 Track Extension to Yard.....	2,040.0
"	No. 4 Track Extension to Yard.....	2,242.0
"	No. 5 Track C.N.R. Transfer	2,048.0
"	No. 6 Track C.N.R. Transfer	2,050.0
"	Short lead, west end of extension to yard....	466.0
"	Cross-over to C.N.R. Transfer	159.0
Feronia	Passing siding extended	674.0
"	Loading siding	805.0
Mulock	Passing siding extended	861.0
"	Loading siding	701.0
Latchford	"2" and "3" Through sidings connected.....	265.0
Halleybury	Spur on rear of freight shed extension ...	334.0
Chamberlain	Spur siding at station	350.0
Sesekinika	Loading siding	762.7
Ramore	Loading siding extended	755.0
Vimy Ridge	Spur at station	432.0
Porquis Junction	New leg of wye	1,166.0
"	Through siding north of freight shed.....	918.0
<i>Porcupine Branch:</i>		
McIntosh Springs	Siding extended	718.0
Timmins	Wood loading spur	450.0
"	No. 1 spur at river.....	1,557.0
"	No. 2 spur at river.....	367.0
"	Passing siding at river.....	1,285.0
	Total	21,683.7

The following public sidings were taken up or shortened:—

Location.	Description.	Length.
		Feet.
M. 2½	Public Spur	381.0
Latchford	Cross-over	168.6
New Liskeard	Cross-over south of station	177.0
M. 153.5	Public Spur	349.0
Matheson	Part of south leg of wye	437.0
"	North leg of wye and tail track	1,400.0
	Total	2,910.6

Tie Renewals:

The tie renewals were greater than last year, but not as extensive as desired, owing to the difficulty in securing a supply early in the season.

The following renew

	Location.
First Division	
Second Division	
Kerr Lake Branch	
Elk Lake Branch	
Charlton Branch	
Porcupine Branch	

Total for renew

The total number amounted to 192,890. Forty-one sets of struction work.

Ballasting:

Main track reball

	Loc
<i>First D</i>	
M. 1—15.5	
M. 60—62	
M. 66.5—68	
New Liskeard Yard ..	
<i>Second</i>	
M. 189.5—195	
M. 196.5—199	
M. 200 —201	
M. 209 —211	
Total	

Surfacing Main Lin

The following 2 in. to 5 in.

Three miles on C	
Mileage 140 to 14	
" 169 to 17	
" 176 to 17	
" 183 to 18	

Rail Renewals:

The rail renew	
Mileage 3.8	
" 67.85	
" 79.8	
" 99.	

Total .

Miscellaneous Bett

Timber trestle repla
Concrete tile used f
New right of way f
Public road crossing
Private road crossi

Summary of Extensive Repairs to Locomotives:

Since November 1st, 1918, the following locomotives have been through our shops at North Bay Junction for repairs:—

Given General Repair—103, 110, 125, 126, 135, 136, 141, 143, 144, 152.

Given Heavy Repair—112, 117, 122, 133, 137, 138, 140, 141, 142, 145.

Given Light Repair—108, 109, 111, 113, 114, 115, 116, 118, 119, 120, 124, 127, 128, 137, 139, 140, 141, 142, 143, 144, 145, 146, 150, 152.

NOTE.—The term "General Repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuild. "Heavy Repairs" refers to cases where engines have received such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushings renewed. "Light Repairs" covers cases where engines have received minor repairs such as renewal of side rod bushings, piston rings and valve rings.

All requirements of the Dominion Railway Commission in regard to washing out and testing boilers, testing staybolts, examining nettings and dampers, etc., have been fully complied with, and during the summer months periodical inspection of all fire protective appliances has been made by our Inspectors.

Engine Despatch:

Statement showing the number of engines despatched from the different terminal and divisional points during the year:—

Station.	Number of Engines Despatched.
North Bay Junction	6,912
Elk Lake	329
Englehart	4,662
Iroquois Falls	362
Timmins	763
Cochrane	1,807
Total	14,835

The motive power has been generally assigned during the year as follows:—

Class of Service	Number of Engines.
Passenger	15
Freight	27
Work	3
Switching	4

Locomotive Mileage:

The following statement shows the mileage made by locomotives belonging to this railway during the year:—

Engine Number.	Miles Run.
101.....	26,285
103.....	13,707
108.....	17,570
109.....	35,462
110.....	17,999
111.....	54,746
112.....	25,967
113.....	31,522
114.....	47,280
115.....	30,575
116.....	25,578
117.....	24,856

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OFFICE OF THE SUPERINTENDENT OF TRAFFIC

Annual Report. Year Ended October 31st, 1919

REPORT OF ACCIDENTS TO TRAINS, DERAILMENTS, ETC.

November 10th, 1918, Ex. 139, south, car P.L. 531046 derailed at Rib Lake. Estimated damage to roadway and track, \$161.97.

December 24th, 1918, Train No. 85, eight cars derailed at C.N.R. Diamond. Cause, broken rail. Estimated damage to track and equipment, \$67.22.

December 31st, 1918, Ex. 143, south, cars D. & H. 28041 and N.Y.C. 415880 derailed at Matheson. Cause, slide bar broke on switch stand. Damage to equipment, \$100.00.

January 23rd, 1919, Ex. 145 north. Car C.P. 58090, derailed at switch of spur siding near M.P. 133. Cause, unknown. Damage to equipment, \$400.00; to track, \$46.72.

January 26th, 1919, Train No. 9 derailed seven poles north of M.P. 197. Express car 2799, C.G.R., 1st class 401, G.T.P. Tourist 3407, Dining Car 4008, Pullman Rossignol, Pullman Car Pedley, T. & N. O. coaches 109, 14 and 28, and G.T.P. Private Car Kaiken, left rails. Cause, broken rail. Estimated damage track and equipment, \$7,000.00.

January 29th, 1919, No. 81. Car T. & N. O. 60329 loaded with logs derailed M.P. 100. Cause, broken flange on wheel. Damage to track and equipment, \$34.31.

February 12th, 1919, Ex. 141, south, while passing spur M.P. 231 $\frac{1}{4}$ three cars went over switch, following four cars went into spur, fifth car turned over. Cars supposed to have split switch point. Estimate of damage, \$3,000.00.

February 21st, 1919, No. 9, while passing north switch Uno Park had baggage car G.T.P. 419 derailed. Cause, broken equalizer. Damage to equipment and track, \$98.70.

March 28th, 1919, Train No. 9, while passing M.P. 431 $\frac{1}{2}$, engine 142, Express Car 2804, Baggage 2799, Colonist 1560, First Class 402 and Tourist Car 3405 left rails. Cause, spread track. Section foreman held responsible and dismissed. Total damage, \$250.00.

March 30th, 1919, Ex. 141, south, while passing M.P. 651 $\frac{1}{2}$, car P.R. 6405 derailed. Cause, defective track. Damage to track, \$49.39.

April 19th, 1919, Ex. 141, south at seven poles south of M.P. 32 pony truck of engine derailed. Cause, loose wheel. Damage to track, \$151.16.

May 25th, 1919, Ex. 139, south, at M.P. 211 $\frac{1}{4}$, car G.T.P. 309033 derailed. Cause, broken flange on wheel. Damage to equipment and track, \$144.64.

May 29th, 1919, Train No. 97, trailing truck of car C.P. 101388, derailed at Potter's Spur 208. Damage to track and equipment, \$61.60.

June 9th, 1919, Train No. 23. While running tender first passing M.P. 53 $\frac{1}{4}$, Charlton Branch, Train No. 23 derailed. Cause, fast running. Engineer and conductor responsible disciplined. Estimate of damage to track and equipment, \$4,555.00.

June 23rd, 1919, Ex. 141, south and No. 97, Engine 120 collided at Monteith. Cause, engineer failed to use proper precautions approaching station. Engineer responsible disciplined. Damage to equipment, \$1,125.37.

June 25th, 1919, Ex. 138, north. Four poles south of south switch Rib Lake, following cars derailed: C.P. 73644, C. B. & Q. 111594, C.P. 124898, St. L. 47736, V. S. & P. 26636, N. & H. 87143, C.P. 42896. Cause, spread track. Damage to track, \$212.60; to equipment, nil.

July 11th, 1919, Train No. 9. While pulling out of North Bay Junction, Engine 146 mounted switch point near boiler room. Cause, curvature in track slightly irregular. Damage to track and equipment, \$410.81.

August 7th, 1919, Ex. 137, south. Cars L. E. & W. 44988 and F. D. M. & S. 6512 derailed at M.P. 101. Cause, unlocated. Total damage to track and equipment, \$1,100.37.

August 9th, 1919, while Ex. 137, south, passing M.P. 136, cars C.G. 551311 and P. & R. 86160, loaded with lumber, derailed. Cause, defective track. Section foreman held responsible and dismissed. Total damage, \$357.92.

October 1st, 1919, Ex. 137, Cars G.T. 1055b and C.G.R. 80360 derailed at M.P. 96¾. Cause, broken wooden truck bolster. Total damage, \$490.95.

INJURIES TO EMPLOYEES.

November 2nd, 1918, North Bay yard, Yardman A. H. Wall, alleged while switching cars squeezed between engine and tender owing to draw bars passing each other. Resumed duty November 12th, 1918.

November 23rd, 1918, Englehart yard, Brakeman W. A. Blake while switching cars alleged sprained ankle. Resumed duty November 26th, 1918.

November 24th, 1918, Tomiko, Conductor R. McTavish, while stepping from van sprained ankle. Resumed duty November 26th, 1918.

November 24th, 1918, Charlton Station, Brakeman A. Peden, while riding top of car alleged lost balance, jumped to ground alleged bruising heel and dislocating toe. Resumed duty December 25th, 1918.

December 7th, 1918, Englehart yard, Yard Helper N. Pringle while coupling coaches, squeezed between tender and coach. Resumed duty December 26th, 1918.

January 2nd, 1919, Englehart yard, Engineer J. C. Biggs alleged tripped over pile of cinders injuring shoulder in the fall. Resumed duty January 25th, 1919.

January 3rd, 1919, New Liskeard, G. Knight, Fireman, alleged sprained back while firing locomotive at New Liskeard. Resumed duty January 14th, 1919.

January 7th, 1919, North Bay freight shed, Trucker Wm. Wrinn alleged bruised about chest, caused by heavy piece of freight tipping over and pinning him against the wall. Resumed duty January 16th, 1919.

January 14th, 1919, Haileybury freight shed, while handling pig Brakeman Jacob Chambers alleged sprained back. Resumed duty January 23rd, 1919.

January 25th, 1919, North Bay shops, Engineer T. E. Muldoon while getting engine ready alleged slipped on ice falling against engine, sustaining cut on head. Resumed duty February 3rd, 1919.

January 28th, 1919, New Liskeard, while unloading freight from car P. McMillan, Checker, scratched hand and blood poisoning alleged to have resulted. Resumed duty February 3rd, 1919.

February 1st, 1919, door slipped alleged February 3rd, 1919.

February 5th, 1919, man H. M. Ruston, alleged catching finger 21st, 1919.

February 10th, 1919, Stephenson alleged slipped

February 15th, 1919, engine alleged slipped subsequently amputated

February 24th, 1919, on gang plank bruised

February 28th, 1919, slipped on gang plank 10th, 1919.

March 5th, 1919, alleged sustained cut March 12th, 1919.

March 7th, 1919, getting on engine, all

March 23rd, 1919, finger while firing loco

March 27th, 1919, bruised thumb. Res

March 28th, 1919, fell between cars, ge

March 31st, 1919, fingers on right han

April 4th, 1919, permitted steel barre

April 21st, 1919, bruised foot, caused 1919.

May 1st, 1919, bruises to foot, caused 1919.

June 9th, 1919, bruises to leg on acco

June 12th, 1919, around engine, alleg

July 2nd, 1919, third finger on hand

July 7th, 1919, sustained bruises to duty July 21st, 191

MOTIVE POWER AND CAR DEPARTMENT

Alterations and Repairs to Locomotives:

During the year we have proceeded with the work of equipping locomotives with modern appliances.

Eight 10-wheel locomotives Nos. 112, 113, 127, 128, 129, 130, 131, 132, have been sent to Montreal Locomotive Works to be equipped with superheaters, brick arches, new smoke box arrangement, pneumatic fire doors, 8½ in. cross compound air pumps, Walschaert valve gear, Franklin hard grease driving box lubricators, and Babcock water gauge glass protectors.

In addition to the above, each engine was equipped with a new steel cab, and new cylinders, the latter being made 20 inches by 24 inch stroke, an increase of 1 inch diameter over the cylinders originally on these engines. The working steam pressure has been reduced from 190 to 180 lbs. per square inch.

At the same time all these engines were given a general repair, and engines 112 and 113 new fire-boxes and new smoke-boxes.

In April, Pacific type locomotive No. 134 and Mikado type locomotive No. 146 were returned from the Canadian Locomotive Company. On account of being badly damaged in wreck these two locomotives were shipped to the builders for repairs, as this work was too heavy for the facilities at our repair shops at North Bay Junction. Engine No. 134 required a new tender tank, and this was built with a coal box arranged to feed by gravity all the coal ahead to the front of the tender.

3/27/1918

New Snow Plow:

One steel snow plow has been received from the Canadian Car & Foundry Company, Montreal. This is equipped with air operated drop nose, wings, and ice cutters.

Ballast Cars:

Twenty-five Hart ballast cars were purchased second hand through F. H. Hopkins & Company, Montreal, also four 12-yard Western Wheeled Scraper Company's dump cars from the Cook Construction Company, Montreal.

Locomotive Crane:

One of these with fifty-foot boom, having a capacity of fifteen tons at fifteen-foot radius and three tons at fifty-foot radius, was supplied by Orton & Steinbrenner Company, Chicago.

Engine Number.	Miles Run.
118.....	34,517
119.....	23,219
120.....	34,866
121.....	10,064
122.....	33,092
123.....	28,125
124.....	32,300
125.....	140
126.....	11,609
127.....	18,502
128.....	26,744
129.....	3,057
130.....	32,611
131.....	27,413
132.....	19,448
133.....	35,722
134.....	18,042
135.....	36,987
136.....	41,105
137.....	42,714
138.....	44,374
139.....	45,956
140.....	41,022
141.....	35,674
142.....	43,656
143.....	29,643
144.....	33,483
145.....	38,604
146.....	14,557
150.....	36,886
151.....	34,574
152.....	17,722
153.....	32,929
Total.....	1,310,977

Repairs to Passenger Equipment:

Repair has been made to passenger equipment at North Bay Junction shops as follows:—

Class of Car.	General Repair.	Light Repair.
First Class .....	..	7
Second Class	2	7
Mail and Express .....	..	3
Baggage and Express	1	2
Business Cars .....	..	2
Nip. Cen. Rly. Cars .....	..	2

NOTE.—The term "General Repair" as applied above refers to cases where a coach has had the interior and exterior finish of car removed, framing refitted, new steel sills applied and trucks rebuilt. The term "Light Repair" applies to coaches having seat arms scraped and sanded, interior of car varnished, outside of car washed down and given two coats of varnish, and trucks repaired.

Coach Cleaning:

Statement showing the number of coaches cleaned at the different stations during the year:—

Station.	Number of Coaches Cleaned.
North Bay Junction	3,321
Elk Lake	1,095
Englehart	1,037
Iroquois Falls	1,095
Timmins	1,408
Cochrane	2,703

OFFICE OF THE SUPERINTENDENT OF TRAFFIC

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March 30th, 1919, Ex. 141, south, while passing M.P. 651 $\frac{1}{2}$, car P.R. 6405 derailed. Cause, defective track. Damage to track, \$49.39.

April 19th, 1919, Ex. 141, south at seven poles south of M.P. 32 pony truck of engine derailed. Cause, loose wheel. Damage to track, \$151.16.

May 25th, 1919, Ex. 139, south, at M.P. 211 $\frac{1}{4}$, car G.T.P. 309033 derailed. Cause, broken flange on wheel. Damage to equipment and track, \$144.64.

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June 9th, 1919, Train No. 23. While running tender first passing M.P. 53 $\frac{1}{4}$, Charlton Branch, Train No. 23 derailed. Cause, fast running. Engineer and conductor responsible disciplined. Estimate of damage to track and equipment, \$4,555.00.

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August 9th, 1919, while Ex. 128, south, passing M.P. 136, cars C.G. 551311 and P. & R. 86160, loaded with lumber, derailed. Cause, defective track. Section foreman held responsible and dismissed. Total damage, \$357.92.

October 1st, 1919, Ex. 137, Cars G.T. 10556 and C.G.R. 80360 derailed at M.P. 96 $\frac{3}{4}$. Cause, broken wooden truck bolster. Total damage, \$490.95.

INJURIES TO EMPLOYEES.

November 2nd, 1918, North Bay yard, Yardman A. H. Wall, alleged while switching cars squeezed between engine and tender owing to draw bars passing each other. Resumed duty November 12th, 1918.

November 23rd, 1918, Englehart yard, Brakeman W. A. Blake while switching cars alleged sprained ankle. Resumed duty November 26th, 1918.

November 24th, 1918, Tomiko, Conductor R. McTavish, while stepping from van sprained ankle. Resumed duty November 26th, 1918.

November 24th, 1918, Charlton Station, Brakeman A. Peden, while riding top of car alleged lost balance, jumped to ground alleged bruising heel and dislocating toe. Resumed duty December 25th, 1918.

December 7th, 1918, Englehart yard, Yard Helper N. Pringle while coupling coaches, squeezed between tender and coach. Resumed duty December 26th, 1918.

January 2nd, 1919, Englehart yard, Engineer J. C. Biggs alleged tripped over pile of cinders injuring shoulder in the fall. Resumed duty January 25th, 1919.

January 3rd, 1919, New Liskeard, G. Knight, Fireman, alleged sprained back while firing locomotive at New Liskeard. Resumed duty January 14th, 1919.

January 7th, 1919, North Bay freight shed, Trucker Wm. Wrinn alleged bruised about chest, caused by heavy piece of freight tipping over and pinning him against the wall. Resumed duty January 16th, 1919.

January 14th, 1919, Haileybury freight shed, while handling pig Brakeman Jacob Chambers alleged sprained back. Resumed duty January 23rd, 1919.

January 25th, 1919, North Bay shops, Engineer T. E. Muldoon while getting engine ready alleged slipped on ice falling against engine, sustaining cut on head. Resumed duty February 3rd, 1919.

January 28th, 1919, New Liskeard, while unloading freight from car P. McMillan, Checker, scratched hand and blood poisoning alleged to have resulted. Resumed duty February 3rd, 1919.

February 1st, 1919, North Bay transfer platform, while placing door on car, door slipped alleged bruising arm of I. McKibbin, Labourer. Resumed duty February 3rd, 1919.

February 5th, 1919, on line, between Earlton Junction and Englehart, Fireman H. M. Ruston, while putting in fire, foot slipped, allowing door to close alleged catching finger between shovel and door handle. Resumed duty February 21st, 1919.

February 10th, 1919, North Bay yard, while switching cars Switchman W. J. Stephenson alleged sprained ankle. Recovery complete March 4th, 1919.

February 15th, 1919, North Bay yard, Yardman Alex. Cameron while riding engine alleged slipped, foot going under engine. Toes crushed, three being subsequently amputated. Resumed duty May 5th, 1919.

February 24th, 1919, North Bay shed, Trucker R. J. Jones alleged slipped on gang plank bruising knee. Resumed duty February 26th, 1919.

February 28th, 1919, North Bay freight shed, Trucker R. J. Jones alleged slipped on gang plank falling, sustained bruises to knee. Resumed duty March 10th, 1919.

March 5th, 1919, North Bay shed, Trucker W. Wrinn, while opening car door, alleged sustained cut on head. Caused by door falling from car. Resumed duty March 12th, 1919.

March 7th, 1919, Englehart round house, H. B. Legary, Fireman, while getting on engine, alleged slipped bruising side. Resumed duty March 19th, 1919.

March 23rd, 1919, on line near Jocko, Fireman Wm. Cushing alleged bruised finger while firing locomotive. Resumed duty April 9th, 1919.

March 27th, 1919, North Bay freight shed, Trucker R. J. Jones, alleged bruised thumb. Resumed duty April 1st, 1919.

March 28th, 1919, North Bay freight shed, Trucker F. T. Relph, alleged fell between cars, generally shaken up. Resumed duty April 28th, 1919.

March 31st, 1919, Cochrane freight shed, Trucker H. Haworth alleged had fingers on right hand frozen. Resumed duty April 14th, 1919.

April 4th, 1919, North Bay freight shed, Checker J. B. McLean alleged permitted steel barrel to fall, bruising his foot. Resumed duty April 7th, 1919.

April 21st, 1919, North Bay freight shed, Trucker H. W. Wallace, alleged bruised foot, caused by bar of iron falling on same. Resumed duty April 23rd, 1919.

May 1st, 1919, North Bay freight shed, Trucker Michael Pelta sustained bruises to foot, caused by heavy case falling on same. Resumed duty May 8th, 1919.

June 9th, 1919, on Charlton Branch, Engineer A. McMenemy alleged sustained bruises to leg on account of engine derailment. Resumed duty June 14th, 1919.

June 12th, 1919, North Bay yard, Fireman H. M. Ruston, while working around engine, alleged scalded leg. Resumed duty June 26th, 1919.

July 2nd, 1919, North Bay freight shed, Trucker W. E. Brigginsshaw crushed third finger on hand while handling freight. Resumed duty July 21st, 1919.

July 7th, 1919, North Bay transfer platform, Labourer E. F. Brown alleged sustained bruises to back caused by door falling on same. Resumed duty July 14th, 1919.

ing revenue to total operating
llows:

et earnings..... 7.8%
et earnings..... 1.9%
\$951,791.25, or 30.1%.

	1919
763 46	\$789,431 65
327 57	594,401 64
366 17	19,504 73
17 25	1,499,314 90
27 43	51,167 33
28 85	123,460 28
31 45	1,150 51
99 28	\$3,076,130 02
46 10	9,548 72
27 00	9,364 10
99 71	162 05
28.5	328.5

f road as compared with 1919.
n increase of \$951,791.25 for
oximately \$612,000 and this
our and certain maintenance

ir Board, at Chicago, arrived
in rates of wages covering
was adopted by Canadian
r May 1st, 1920. In conse-
reased in 1920 approximately

removal of snow and ice from
\$32,000 and in accordance
ce of equipment, the rolling
ney, involving an increased
for freight car repairs, and
will show the exact standing

	1919
47	\$286,400 19
87	118,697 05
48	55,847 72
60	27,089 57
42	\$488,034 53

This account in 1920 shows an increase of \$178,356.89 over 1919, equal to 36.6 per cent. During present fiscal year Commission have also provided for depreciation on equipment covering all classes of rolling stock to the extent of \$57,493.92 for the period.

The gross operating revenue and net earnings for the period 1919-20 fiscal years, is as follows:

1919	\$3,136,752 76	\$53,153 32	1.70%
1920	4,088,544 01	298,842 23	6.01%

Ore royalties during same period were:

1919	\$25,396 08
1920	57,296 28

Increase 1920 over 1919, \$31,900, equal to 124%.

The result of freight traffic handled during 1920 shows tonnage of freight earning revenue to have increased to the extent of 282,140 tons, equal to 26 per cent., and the total train mileage increased approximately 200,000 miles, locomotive mileage 225,000 miles, and car mileage 250,000 miles.

SURVEYS

James Bay Surveys:

A small party, in charge of Mr. W. R. Maher, spent about four months during the winter of 1919-20 in exploratory surveys between Cochrane and James Bay. An approximate line of levels was carried through to tide water at Moose Factory. The information that has been collected will be of great value in reaching a decision upon the route to be followed.

ADDITIONS TO ROAD AND EQUIPMENT

During the present fiscal year contracts for additional steam locomotives were placed:

Two Switchers (0-8-0), Montreal Locomotive Works Limited, Montreal,

Four Mikados (2-8-2), Canadian Locomotive Company, Limited, Kingston.

Delivery of these locomotives will be made early in the year 1920-21. These are being built from designs and specifications prepared by the officers of the Mechanical Department of the Railway, and represent the best modern practice as adapted to the requirements of the Commission.

Again this year a shortage of labour prevailed and considerable difficulty was experienced in securing certain classes of materials. This condition prevented the completion of the contemplated betterments to the property. The more important of the additions and betterments are as follows:

North Bay Junction:

The enlargement of the yard and the additions to the Stores Buildings, under construction at the close of the last fiscal year, have been completed.

Tenders were called for the removal of a considerable quantity of rock at the rear of the round-house to allow for much needed improvements to the north end of the yard. The successful tenderer, Mr. S. De Rosa, has this work well under way.

A frame car repair shop, 105 feet by 37 feet, was erected in the repair yard.
2 T.N.O.

The only suggestion I would care to make is, that if it were possible to extend the minimum disability clause of the Workmen's Compensation Act to ten or even fourteen days rather than the seven days as it now stands, that there would be a great deal more justice for both working-men and Company.

Yours very truly,

(Signed) A. H. McMURCHY,
Chief Medical Officer.

MOTIVE POWER AND CAR DEPARTMENT

Beg leave to submit the following report of the Motive Power and Car Department, for the year ending October 31st, 1921:

New Locomotives

During the year four Pacific type passenger locomotives, four Mikado type freight, and two eight-wheel switching engines were received from the builders. A description of these various types of locomotives is included in report of the Chief Engineer.

To determine the efficiency and capacity of these new passenger and freight locomotives, tests were made with aid of a dynamometer car, and proved very successful.

Arrangements have been completed for the sale of seven ten-wheel locomotives, Nos. 101, 103, 104, 105, 106, 107 and 108. These engines were the first to be used on this Railway and on account of their not being able to handle the traffic economically, are being replaced by the heavier and more modern type of locomotive described above.

New Machinery

The following new machinery was installed in the shops at North Bay Junction: One 4 foot radial drill, one 32 inch shaper, and one 80 inch electrically driven driving wheel lathe.

Electric Work on Locomotives

The past year gave an opportunity of watching results of the change from arc to incandescent headlamps. The lamps stood the winter conditions far better, cost less for maintenance, and the equipment used far less fuel than the old type dynamos with arc headlights.

All the new locomotives were similarly equipped, and in addition the tenders were fitted with electric lights. The railway now has no arc lights in use.

New Buildings

Electric lights were installed in new extension to office at North Bay Junction.

The new coal chutes were wired for light and power and electrical equipment for operation installed.

The repairs, additions, and maintaining of electric lights at all points were made, including North Bay, Englehart, Cochrane, Timmins, Porquis Junction, Iroquois Falls, etc.

C. N. Railway Repairs, Etc.

Effective May 1st, 1921, the T. & N. O. Railway took over all work for the C.N.R. in connection with the despatching, inspection and repairs to C.N.R. equipment at North Bay Junction.

Since that date, the T. & N. O. Railway has housed, repaired, and despatched, all C.N.R. locomotives, inspected and repaired all coaches belonging to that Railway, and cleaned their passenger equipment; inspected and repaired their freight equipment, and looked after their interests in this connection at North Bay Junction.

The bills covering above departments affected.

C. T. Railway Inspection, Etc.

On July 16th, 1921, the T. inspection of freight and passenger and cleaning same at North Bay and since that time, this work in addition to the repairing of the been done for a number of years. Bills are being rendered monthly.

Engine Despatch

Statement showing the number of different terminal and division:

Station	
North Bay Junction ..	
Elk Lake	
Englehart	
Iroquois Falls	
Timmins	
Cochrane	

Total

The motive has been generated as follows:

Class of Service	
Passenger	
Freight	
Work	
Switching	

Locomotive Mileage

The following statement belonging to this railway during the year:

Engine Number	Mile
101	14
102	13
103	14
104	21
105	36
106	43
107	28
108	34
109	47
110	27
111	35
112	23
113	18
114	29
115	31
116	26
117	28
118	29
119	24
120	33
121	33
122	31
123	29
124	30
125	22
126	32
127	56
128	54

1922

The bills covering above are being looked after by the various departments affected.

G. T. Railway Inspection, Etc.

On July 16th, 1921, the T. & N. O. Railway agreed to take over the inspection of freight and passenger equipment, the repairing of coaches, and cleaning same at North Bay Junction for the Grand Trunk Railway, and since that time, this work is being done by this Railway's staff, in addition to the repairing of their freight equipment, which has already been done for a number of years.

Bills are being rendered monthly in connection with above.

Engine Despatch

Statement showing the number of engines despatched from the different terminal and divisional points during the year:

Station	Number of Engines Despatched
North Bay Junction	7,817
Elk Lake	315
Englehart	5,853
Iroquois Falls	670
Timmins	1,048
Cochrane	2,233
Total	17,936

The motive has been generally assigned during the year as follows:

Class of Service	Number of Engines
Passenger	16
Freight	27
Work	3
Switching	6

Locomotive Mileage

The following statement shows the mileage made by locomotives belonging to this railway during the year:

Engine Number	Mileage	Engine Number	Mileage
101	14,053	135	38,877
103	13,258	136	42,316
107	14,589	137	32,711
109	21,158	138	26,650
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116	35,966	145	36,140
117	23,428	146	34,650
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129	29,291	157	22,346
130	30,785	158	21,874
131	22,317	159	22,131
132	32,247	160	19,826
133	56,993		
134	54,455		
		Total	1,602,269

NIPISSING CENTRAL RAILWAY

Litigation

At the end of the financial year there were no actions pending in which the Nipissing Central Railway was Plaintiff. The action of Mrs. Agnes Andresmitz for damages for personal injuries came on for trial at Haileybury before a Judge and jury. The jury brought in a verdict in favor of the Company, and the action was accordingly dismissed. The only action pending at the end of the financial year in which the Company was defendant is one brought by one, Bigelow, for damages for injuries to an automobile caused by collision at Lang Street Crossing, Cobalt. Liability is disputed and the action is standing for trial.

Damage Claims

A number of claims including some for personal injuries were made during the year. Some have been settled and others abandoned, and, save as mentioned above, in no case, has a writ been issued.

Increase in Fares

During the year an application was made to the Dominion Railway Board for leave to increase passenger fares on the Company's Railway. A sitting of the Board was held at Haileybury, at which evidence was heard on behalf of the Company and the various municipalities opposing the increase. After reserving judgment, the Board made an order authorizing the Company to increase its passenger fares temporarily by 20%.

Leases, Agreements, Contracts, Etc.

As usual a number of agreements, contracts, leases and other documents covering various miscellaneous matters between the Company and others, have been prepared and executed.

Miscellaneous

Numerous questions on various subjects affecting the Nipissing Central Railway and the T. & N. O. Railway Commission have arisen during the year calling for the consideration of the Legal Department.

SUPERINTENDENT'S REPORT

I beg to submit the following report of the Transportation, Maintenance of Way and Mechanical Departments of the Temiskaming and Northern Ontario Railway for the fiscal year ending October 31st, 1921.

Time Table Changes

In order to make necessary arrangements to suit summer and winter traffic conditions, Time Table No. 48 was issued January 9th, 1921. Time table 49 May 1st, 1921, and Time Table No. 50, October 2nd, 1921.

Under these changes, effective May 1st, 1921, trains 46 and 47 were operated daily except Sunday between North Bay and Timmins; these trains running to and from Toronto via G.T.R. Effective same date

Following is summary of train service at present in effect:

Main Line
Trains Nos. 17 and 18 operate daily except Sunday between North Bay and Cochrane. C.P.R. Sleeper handled on these trains making through service between Montreal and Timmins.

Trains Nos. 46 and 47 daily except Sunday between North Bay and Englehart. These trains running to and from Toronto, via G.T.R.

Trains Nos. 1 and 2—"The Continental Limited", operate daily between Montreal, Que., and Vancouver, B.C., via North Bay and Cochrane.

Branch Lines
Elk Lake Branch—Mixed train service daily except Sunday connecting with main line trains.

Charlton Branch—Two mixed trains daily except Sunday in each direction making connections with main line trains.

Iroquois Falls Branch—Four passenger trains daily except Sunday in each direction making connections with main line trains, Sunday—two passenger trains each way—giving through service to and from Timmins and connecting with main line trains.

Porcupine Branch—Three passenger trains daily except Sunday each way between Timmins and Porcupine Junction, with one passenger train on Sundays—giving through service to Iroquois Falls and connections with "The Continental Limited" trains Nos. 1 and 2.

Stations Opened and Closed

On September 30th, 1921, Boston Creek Station closed as an Agency point.
On October 5th, 1921, Ramore Station opened as an Agency point.

Maintenance of Way

Mileage operated is as follows:

	Miles	Miles
MAIN LINE		252.29
North Bay to Cochrane		
BRANCH LINES		
Charlton Branch	7.60	
Porcupine and Iroquois Falls	40.11	
Elk Lake Branch	28.50	
Nipissing Junction Spur, leased to G.T.R. ..		76.21
		2.10
YARDS AND SIDINGS		
Main line and branches	118.79	
Liskeard Spur	1.12	
Matagam River Spur	2.96	
Double track		122.87
		1.70
LEASED TO NIPISSING CENTRAL RAILWAY		
Main track	10.45	
Yard tracks and sidings	1.65	
Private sidings	1.80	
		13.90
TOTAL MILEAGE		469.07

Additions

Labor was more plentiful this year than for some time previous with the result that the contemplated betterments to the property were nearly all completed.

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Age Claims

A number of claims including some for personal injuries were made during the year. Some have been settled and others abandoned, and, save as mentioned above, in no case, has a writ been issued.

Rate in Fares

During the year an application was made to the Dominion Railway for leave to increase passenger fares on the Company's Railway. The Board of the Company was held at Haileybury, at which evidence was heard on behalf of the Company and the various municipalities opposing the increase. After reserving judgment, the Board made an order authorizing the Company to increase its passenger fares temporarily by 20%.

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Line
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Porcupine and Iroquois Falls	40.11	
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Nipissing Junction Spur, leased to G.T.R. ..		76.21
		2.10
YARDS AND SIDINGS		
Main line and branches	118.79	
Liskeard Spur	1.12	
Mattagami River Spur	2.96	
Double track		122.87
		1.70
LEASED TO NIPISSING CENTRAL RAILWAY		
Main track	10.45	
Yard tracks and sidings	1.65	
Private sidings	1.80	
		13.90
TOTAL MILEAGE		469.07

Additions

Labor was more plentiful this year than for some time previous with the result that the contemplated betterments to the property were nearly all completed.

North Bay Junction

A new 200 ton Mechanical Coaling Plant of frame construction was erected and the necessary additions and changes made to the sidings to serve the plant.

A switch and short length of track was put in for a connection to the new entrance to the C.N.R. Station.

The improvements to the north end of the yard, under construction at the close of the last fiscal year, have been completed.

A small addition of brick construction was made to the machine shop for the tinsmith and electric welders.

An extension 50 feet x 30 feet of frame construction was made to the office building to provide accommodation for the Superintendent and Paymaster's staffs.

An addition 45 feet x 30 feet of frame construction was built to the frog repair shop for the Electrical Department.

Trout Mills

A siding 994 feet long was put in for Wm. Milne & Sons in their lumber yard.

Redwater

A side track 800.5 feet long was put in to keep the passing siding clear of cars.

Mileage 57.8

A spur siding 236 feet long was constructed to accommodate lumbering operations in this vicinity.

Temagami

The 50-ton coaling plant, under construction at the close of the last fiscal year, was completed.

Mileage 110.5

A spur siding 310 feet long was put in for the handling of forest products.

New Liskeard

The stock pens were moved to a more suitable location and enlarged. Auto unloading platforms were also built at this station.

Uno Park

A stock pen 30 feet x 40 feet was built at this station.

Thornloe

A well was drilled by contract for the use of the station and section dwelling and a stock pen erected.

Heaslip

A stock pen 30 feet x 40 feet was built at this station.

Englehart

A new pump house and a new 6 inch wood pipe line from the river to the water tank at the shops is now under construction.

Swastika

A passing siding 1,223 feet long was put in at this station.

Yorkston

The passing siding and the loading siding, under construction at the close of the last fiscal year, were completed.

Wasach

A standard frame shelter station was built at this point.

Porquis Junction

An extension 30 feet x 30 feet in frame construction was made to the south end of the station for a restaurant and increased waiting room

accommodation. The used as a telephone of

Niddville

A passing siding

Holland

A spur siding 8 products.

Cochrane

A 1,000-ton ice put in for icing cars freight shed platform

A stock pen 30 built near the freight

Elk Lake

An electric drive this station.

Mileage 1¼—Charlton

The timber tree bridge on concrete at

Charlton

A stock pen 30

South Porcupine

The Agent's ho installed.

Timmins

A 300-ton Ice H

The Rail Renew

Mileage 55.2 t

Mileage 102.0 t

Mileage 118.7 t

Total...

There was app and third districts ballasting was done

Tie Renewals

On Roadmaster renewed: 87,624 tie (178) and Elk Lake master's District N Iroquois Falls Branch

The Commission equipment, has been enclosed herewith year by the Mechanical Surgeons are also loyal and efficient departments under

accommodation. The second storey over the waiting room addition is used as a telephone office and living quarters for the restaurant employees.

Niddville

A passing siding 3,387 feet long was put in at this point.

Holland

A spur siding 890 feet long was put in for the handling of forest products.

Cochrane

A 1,000-ton ice house in frame construction was erected and a siding put in for icing cars. A steel gangway was put down one side of the freight shed platform.

A stock pen 30 feet x 40 feet and an auto unloading platform was built near the freight shed.

Elk Lake

An electric driven coal conveyer was installed for coaling engines at this station.

Mileage 1¼—Charlton Branch

The timber trestle is being replaced by a 40 foot deck span, steel bridge on concrete abutments.

Charlton

A stock pen 30 feet x 40 feet was built at this station.

South Porcupine

The Agent's house was raised and plumbing and heating systems installed.

Timmins

A 300-ton Ice House in frame construction was built at this point.

Renewals

The Rail Renewals for the year were as follows—

Mileage 55.2 to 63.0	Main Line—7.8 miles	90 lb. A.R.A.—A. rail
Mileage 102.0 to 104.0	Main Line—2.0 miles	90 lb. A.R.A.—A. rail
Mileage 118.7 to 124.5	Main Line—5.8 miles	90 lb. A.R.A.—A. rail

Total..... 15.6 new rail

There was approximately 35 miles of track ballasted on the second and third districts and embankments widened where necessary where ballasting was done.

Tie Renewals

On Roadmaster's District No. 1 (mileage 1 to 101.9) 78,052 ties were renewed; 87,624 ties on Roadmaster's District No. 2, mileage 101.9 to 178) and Elk Lake and Charlton Branches, and 70,160 ties on Roadmaster's District No. 3 (mileage 178 to Cochrane) and Porcupine and Iroquois Falls Branches.

General Remarks

The Commission's property, including roadbed, track, structures and equipment, has been fully maintained. The report of the Master Mechanic enclosed herewith contains full particulars of the work done during the year by the Mechanical Department. The reports of the Chief and District Surgeons are also enclosed. I take this opportunity of testifying to the loyal and efficient service of officials and employees of the various departments under my jurisdiction.

Respectfully submitted,

W. A. GRIFFIN,
Superintendent.

The only suggestion I would care to make is, that if it were possible to extend the minimum disability clause of the Workmen's Compensation Act to ten or even fourteen days rather than the seven days as it now stands, that there would be a great deal more justice for both workingmen and Company.

Yours very truly,

(Signed) A. H. McMURCHY,
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North Bay Junction
Elk Lake
Englehart
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Timmins
Cochrane

Total

The motive has been

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Passenger
Freight
Work
Switching

Locomotive Mileage

The following staten
belonging to this railway

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131	22,317	159	22,131
132	32,247	160	19,826
133	56,993		
134	54,455		
Total		Total	1,602,269

Summary of Extensive Repairs to Locomotives

Since November 1st, 1920, the following locomotives have been through the shops at North Bay Junction for repairs:

Given general repair—139, 142, 152, 138, 131, 128, 112, 127, 117, 151, 133, 129.

Given heavy repair—109, 118, 154, 132, 141, 118, 114, 137, 119, 132, 103, 101, 116, 113, 118.

Given light repairs—148, 130, 150, 152, 126, 135, 118, 126, 145, 150, 110, 120, 144, 121, 146, 146, 117, 151, 103, 121, 113, 130, 151, 132, 140, 144, 123, 145.

Note:—The term "General Repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuilt. "Heavy Repair" refers to cases where engines have received such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushings renewed. "Light Repair" covers a case where an engine has received repairs such as renewal of side rod bushings, piston rings and valve rings.

All requirements of the Dominion Railway Commission in regard to washing out and testing boilers, testing staybolts, examining nettings and dampers, etc., have been fully complied with, and during the summer months, periodical inspection of all fire fighting protective appliances has been made by our inspectors.

Repairs to Passenger Equipment

Repairs have been made to passenger equipment at North Bay Junction shops as follows:

Class of Car	General Repair	Light Repair
First class .....	..	10
Second class	2	10
Mail and express .....	..	2
Baggage and express .....	..	4
Business cars .....	..	1
Nipissing Central Railway ..	1	1

Note:—The terms "General Repair" as applied above refers to cases where a coach has had the interior and exterior finish of car removed, framing refitted, new steel sills applied, and trucks rebuilt. The term "Light Repair" applies to coaches having seat arms scraped and sanded, interior of car varnished, outside of car washed down and given two coats of varnish and trucks repaired.

Coach Cleaning

Statement showing the number of coaches cleaned at the different stations during the year:

Station	Number of Coaches Cleaned
North Bay Junction	5,120
Englehart	1,260
Timmins	2,324
Cochrane	2,205
Elk Lake	626
Iroquois Falls	1,139

Repairs to Freight and Work Equipment

The Car Department staff have made repairs to flat, Hart, stock and box cars, including general overhauling and rebuilding. All necessary running repairs to both T. & N. O. and foreign freight and passenger equipment have been made by the repair staffs at different terminal and divisional points to keep equipment in condition to fulfill the requirements of the service and safety standards.

Monthly bills have been made for repairs to their equipment. The Canadian Railroad Association and the Grand Trunk Railway have cars under the terms of the agreement. All work equipment, outfits, steam shovels, etc., have been overhauled and are in serviceable condition.

Rolling Stock Destroyed

During the year 1922, the following rolling stock, has been destroyed:

S.L.S.F.	304
B. & S.	11
C.N.R.	164
G.T.R.	82
Temiscouata	1
C.N.R.	695
G.T.R.	610
G.R.T.	128

In each instance, the depreciated value of the rolling stock and Regulations.

Twelve wooden box cars, as well as one frame box car.

Bills have been made for the rolling stock destroyed any

Equipment Owned

46 road locomotives
6 switching locomotives
3 business cars
1 paymaster's car
13 first class wooden coaches
6 first class steel coaches
14 second class wooden coaches
4 second class steel coaches
2 combination wood and baggage cars
1 combination wood and baggage car
1 exhibition car
3 parlor cafe cars
6 wooden baggage cars
4 steel baggage cars
4 wooden mail and express cars
3 steel mail and express cars
24 conductors' vans
9 stock cars
239 box cars
90 steel underframes
225 wooden flat cars
12 steel drop bottom cars
58 Hart convertible cars
4 12-yard dump cars
3 wooden snow plows

Monthly bills have been rendered against foreign roads to cover repairs to their equipment in accordance with rules adopted by the American Railroad Association. Bills have also been rendered monthly against the Grand Trunk Railway and Canadian National Railway, for repairs to cars under the terms of the Terminal Agreement.

All work equipment such as snow plows, snow flangers, wrecking outfits, steam shovels, railroad ditcher, boarding cars, hoisting crane, etc., have been overhauled and given such repairs as required to keep them in serviceable condition.

Rolling Stock Destroyed

During the year the following rolling stock belonging to foreign roads, has been destroyed on our line:

S.L.S.F.	30431	M.P. 25 1/2	November 28th, 1920
B. & S.	11339	Kerr Lake	January 22nd, 1921
C.N.R.	16464	Connaught	January 23rd, 1921
G.T.R.	8282	Riddle	January 31st, 1921
Temiscouta	144	M.P. 179 1/2	February 22nd, 1921
C.N.R.	69536	M. P. 179 1/2	February 22nd, 1921
G.T.R.	61045	Ken. Lake	July 11th, 1921
G.R.T.	12873	M. P. 35 1/2	August 15th, 1921

In each instance, settlement has been made with the owners, covering depreciated value of cars destroyed, in accordance with A. R. A. Rules and Regulations.

Twelve wooden flat cars have been destroyed or retired during the year, as well as one of our Hart convertibles, and one of our steel under-frame box cars.

Bills have been rendered against foreign roads in cases where they have destroyed any of our equipment, covering their depreciated value.

Equipment Owned

46 road locomotives	1 steel snow plow
6 switching locomotives	3 snow flangers
3 business cars	3 right hand ballast plows
1 paymaster's car	3 left hand ballast plows
13 first class wooden coaches	3 center ballast plows
6 first class steel coaches	2 Jordan ballast spreaders
14 second class wooden coaches	1 center ballast spreader
4 second class steel coaches	2 Ledgerwood rapid unloaders
2 combination wooden second class and baggage cars	1 pile driver
1 combination wooden first class and baggage car	1 American railroad ditcher
1 exhibition car	1 hoisting crane
3 parlor cafe cars	3 steam shovels
6 wooden baggage and express cars	2 steam wrecking cranes
4 steel baggage and express cars	2 auxiliary boarding cars
4 wooden mail and express cars	2 auxiliary tool cars
3 steel mail and express cars	2 road department auxiliary cars
24 conductors' vans	2 auxiliary track material cars
9 stock cars	2 crane cabin cars
239 box cars	3 road cabin bars
90 steel underframe flat cars	3 road cabin cars
225 wooden flat cars	1 pile driver tank car
12 steel drop bottom dump cars	57 boarding cars
58 Hart convertible cars	6 tank cars for fire protection
4 12-yard dump cars	8 combination boarding and material cars
3 wooden snow plows	6 maintenance of way material cars
	1 car department material car

Yours truly,

THOS. ROSS,
Master Mechanic.

ANNUAL REPORT CHIEF ENGINEER

I beg to submit the following Annual Report of the Chief Engineer of The Temiskaming and Northern Ontario Railway Commission for the year ended October 31st, 1921.

SURVEYS

James Bay Extension

Exploratory surveys for an extension of the Temiskaming and Northern Ontario Railway from Cochrane to James Bay had been carried on during recent years by the engineering department as opportunity offered. These surveys had included examinations of possible harbor sites on James Bay and investigations of the water power, forest and agricultural resources of the intervening district, in addition to topographical considerations influencing the route for a railway extension. In April instructions were received to commence and proceed with the actual location of the first sixty or seventy miles of the James Bay extension, and surveys have been carried on in charge of Mr. W. R. Maher, who had been in charge of the later exploratory surveys. After preliminary surveys over alternative routes had been completed, a route crossing to the east side of the Abitibi River near the head of the Long Sault Rapids about eleven miles from Cochrane, and recrossing to the west side of the river between the Carrying Places and Island Rapids about forty-seven miles from Cochrane and then paralleling the Abitibi River to Abitibi Canon, was adopted by the Commission. Final location surveys are now being made with a view to calling for tenders for the construction of the seventy miles early in December at an estimated cost of about \$3,500,000.

The route selected is conveniently located with reference to a number of important water powers. It traverses throughout rolling clay land very suitable for settlement, and has tributary to it, valuable areas of pulpwood. It is confidently anticipated that the resources of the large area lying between the National Transcontinental Railway (C.N.R.) and James Bay will justify this and further extensions of the Temiskaming and Northern Ontario Railway from time to time, as may be necessary to open the area to settlement and industrial development.

Extension of Nipissing Central Railway

Surveys for an extension of the Nipissing Central Railway from New Liskeard to North Temiskaming and Quinze Lake in the Province of Quebec were authorized by the Commission and in October a survey party with Mr. A. L. McDougall in charge was organized to make an actual location from which accurate estimates of the cost of construction could be prepared. Previous preliminary investigations had indicated that the best available route was along the north shore of Lake Temiskaming around Dawson's Point and then direct to North Temiskaming. P.Q., crossing the inter-provincial boundary about two miles north of the lake. The distance from New Liskeard to North Temiskaming via this route will be about fifteen miles and the total length of the extension to a suitable terminus on Quinze Lake will probably be twenty-nine miles. Crossings of two navigable streams, the Wabis and Blanche Rivers, will be necessary, but apart from these structures, it is anticipated that the work of construction will be light.

The extension of this subsidiary line would give the Temiskaming and Northern Ontario Railway a very desirable connection with the growing agricultural settlement in the Province of Quebec at the head of Lake Temiskaming, and with the heavily timbered area with enormous undeveloped resources of pine and spruce tributary to Quinze Lake, and all at present without railway connections.

ADDITIONAL

During the year a number of buildings were designed by the Engineering Department forces. The following are the principal ones:

Office Buildings

By reason of the transfer of the Engineering Department from Toronto to North Bay, it was necessary to provide accommodation. This was done by the construction of a building at North Bay Junction to accommodate the Train Despatchers, a

Fuel Stations

Mechanical coaling station at Temagami. The North Bay Station has been replaced with a new station necessary on account of the engine district.

Water Stations

At Englehart an auxiliary pump was installed in event of a failure of the main pump. The ordinary pump is ordinarily obtained. A new pumping plant at the B. C. station from the river to the station. Gasoline driven pumps in all the older stations.

Ice Houses

A thousand ton ice house at Timmins was completed.

Stock Pens

Small stock pens at Heaslip and Charlton.

Additional Passing Tracks

Were completed at Y. Delays in meeting and

Locomotives

The ten locomotives of the year have all been received. Works delivered two in March, April and May. Four Pacific type passenger locomotives by the Locomotive Company of Montreal and of the following type and of the following

Weight on driving wheel
Weight on tender loaded
Wheel base, driving ...
Wheel base, total of engine
Cylinders, diameter and
Valves, type and diameter
Valve gear, type

ADDITIONAL TRACKS AND STRUCTURES

During the year a number of improved and additional facilities designed by the Engineering Department have been installed by Operating Department forces. The more important of these are:

Office Buildings

By reason of the transferring of the executive office staff from Toronto to North Bay, it has been necessary to provide additional office accommodation. This was done by enlarging the existing office building at North Bay Junction to furnish accommodation for the Superintendent and Train Despatchers, and the Paymaster and Auditor of Payrolls.

Fuel Stations

Mechanical coaling stations have been built at North Bay and Temagami. The North Bay Station has a capacity of two hundred tons of coal and replaces an old gravity type station that required renewal. The Temagami Station with a capacity of fifty tons is an intermediate coaling station necessary on account of the length of the North Bay, Englehart engine district.

Water Stations

At Englehart an auxiliary water supply was installed to be used in the event of a failure of the municipal waterworks system from which water is ordinarily obtained. This auxiliary supply consists of a gasoline driven pumping plant at the Blanche River and a 6 inch wooden stave pipe line from the river to the station.

Gasoline driven pumps have been installed in place of steam driven pumps in all the older pumping stations.

Ice Houses

A thousand ton ice house at Cochrane and a three hundred ton ice house at Timmins were built to provide for increasing traffic requirements.

Stock Pens

Small stock pens were built at New Liskeard, Uno Park, Thornloe, Heaslip and Charlton.

Additional Passing Tracks

Were completed at Yorkston and Niddville. These were required to avoid delays in meeting and passing trains.

ADDITIONS TO EQUIPMENT

Locomotives

The ten locomotives that were on order at the beginning of the fiscal year have all been received. In November 1920 the Montreal Locomotive Works delivered two switching locomotives and during the months of March, April and May 1921, four Mikado type freight locomotives and four Pacific type passenger locomotives were received from the Canadian Locomotive Company. The switching locomotives are of the eight wheel type and of the following general description:

Weight on driving wheels	207,000 lbs.
Weight on tender loaded	134,500 lbs.
Wheel base, driving	14 ft. 6 in.
Wheel base, total of engine and tender	46 ft. 3½ in.
Cylinders, diameter and stroke	23 in. x 28 in.
Valves, type and diameter	piston, 12 in.
Valve gear, type	Young

Wheels, driving, diameter	53 in.
Wheels, tender, diameter	33 in.
Journals, main driving, diameter and length	9 1/2 in. x 12 in.
Journals, other driving, diameter and length	9 in. x 12 in.
Journals, tender, diameter and length	5 1/2 in. x 10 in.
Boiler, type	Extended Wagon Top
Boiler, pressure	180 lbs.
Boiler, outside diameter at front end	71 in.
Boiler, outside diameter at dome course	78 in.
Firebox, length inside sheets	89 1/2 in.
Firebox, width inside sheets	75 1/4 in.
Tubes, number and diameter	194 2 in.
Tubes, length	14 ft. 6 in.
Flues, number and diameter	32 5 3-8 in.
Arch tubes, number and diameter	4 3 in.
Heating surface, firebox	153 sq. ft.
Heating surface, arch tubes	25 sq. ft.
Heating surface tubes and flues	2125 sq. ft.
Heating surface, total	2303 sq. ft.
Superheating surface	570 sq. ft.
Grate area	46.25 sq. ft.
Water, capacity of tender (imp. gals.)	6000
Coal, capacity of tender, tons	10
Maximum tractive power	42840 lbs.

The Mikado type freight engines are similar in design and general dimensions to those previously in service on the Temiskaming and Northern Ontario Railway, with the following major exceptions: vestibule cabs, cast steel front buffer beams, cast steel tender frames, ragonet reverse gear, and a more recent design of cast steel trailing truck permitting the application of a "Booster" engine to the trailing truck wheels.

One of these engines No. 150 was equipped with the "Booster" engine complete and through it the available draw bar pull of this engine back of the tender has been increased to approximately 51,000 pounds with consequent increase in tonnage rating of about 18 per cent.

The Pacific type passenger locomotives are of the following general dimensions and are all equipped with "Booster" engines similar to that mentioned above. All parts of these engines are interchangeable as far as possible with those of the Mikado type:

Weight on driving wheels	156,080 lbs.
Weight on front truck	47,350 lbs.
Weight on trailing truck	47,070 lbs.
Weight total of engine	250,500 lbs.
Weight of tender loaded	154,100 lbs.
Wheel base, driving	12 ft. 2 in.
Wheel base, total of engine	32 ft. 6 in.
Wheel base, total of engine and tender	61 ft. 3 1/4 in.
Cylinders, diameter and stroke	23 in. 28 in.
Valves, type and diameter	piston, 14 in.
Valve, gear, type	Young
Wheels, driving, diameter	69 in.
Wheels, front truck, diameter	33 in.
Wheels, trailing truck, diameter	45 in.
Wheels, tender truck, diameter	36 in.
Journals, all driving, diameter and length	10 in. x 13 in.
Journals, front truck, diameter and length	6 1/2 in. x 12 in.
Journals, trailing truck, diameter and length	8 in. x 14 in.
Journals, tender truck, diameter and length	5 1/2 in. x 10 in.
Boiler, type	Extended Wagon Top
Boiler, pressure	200 lbs.
Boiler, outside diameter at front end	71 in.
Boiler, outside diameter at dome course	78 in.
Firebox, length inside sheets	96 in.
Firebox, width inside sheets	75 1/4 in.
Tubes, number and diameter	160 2 1/4 in.
Tubes, length	18 ft. 8 in.

Flues, number and diameter
Arch tubes, number and diameter
Heating surface, firebox
Heating surface, arch tube
Heating surface, tubes and
Heating surface, total
Superheating surface
Grate area
Water, capacity of tender
Coal, capacity of tender
Maximum tractive power
Maximum tractive power

These locomotives passenger cars and with thirteen of these cars.

Conductors' Vans

A contract has been made with the Limited, of Preston, for long over the body.

Shop Machinery

During the year service at North Bay J

1	80
1	5
1	5
1	32

Operations on Comm

A contract for the Commission's L.R. Reamsbottom & Edwards the Commission contracts Woollings and Comp delivery of ties during contract with T. S. V delivery of 175,000 ti

Joint Passenger Station

On May 1st, following the Canadian National and Grand Trunk from the Canadian Pacific have been exclusively made in the route inental Limited, the N. O. in place of the changes made it necessary connection with the C.N. the C.N.R. Station at station by T. & N. installed by the C.N. the T. & N. O. local

Appreciation of staff is worthy of re

1922

Flues, number and diameter	32	5 1/2 in.
Arch tubes, number and diameter	4	3 in.
Heating surface, firebox	187	sq. ft.
Heating surface, arch tubes	30	sq. ft.
Heating surface, tubes and flues	2716	sq. ft.
Heating surface, total	2933	sq. ft.
Superheating surface	694	sq. ft.
Grate area	50	sq. ft.
Water, capacity of tender	6500	imp. gal.
Coal, capacity of tender	12	Tons
Maximum tractive power (locomotive only)	36600	lbs.
Maximum tractive power (with booster)	45000	lbs.

These locomotives are hauling trains consisting of nine to ten steel passenger cars and with booster engine working are capable of handling thirteen of these cars.

Conductors' Vans

A contract has been placed with the Canadian Brill Company, Limited, of Preston, for six T. & N. O. standard Coductors' Vans, 29 feet long over the body.

Shop Machinery

During the year the following new machinery has been put into service at North Bay Junction shops:

1	80 in. driving wheel lathe
1	5 ton overhead crane for above lathe
1	5 ft. radial drilling machine
1	32 in. shaper.

GENERAL

Operations on Commission's Tie Limit

A contract for the manufacture of 155,000 ties from timber cut on the Commission's Limit in Macklem Township had been awarded to Reamsbottom & Edwards on October 7th, 1920. On November 15th, 1920, the Commission consented to the assignment of this contract to T. S. Woollings and Company, Limited, Englehart. This contract covered the delivery of ties during the season 1921, and on October 1st, 1921, the contract with T. S. Woollings and Company was renewed to include the delivery of 175,000 ties during 1922, but at a considerably reduced price.

Joint Passenger Station and Terminal—North Bay

On May 1st, following the general policy of co-ordination of the Canadian National and Grand Trunk Railways, the trains of the latter withdrew from the Canadian Pacific Railway Station at North Bay and since then have been exclusively using the C.N.R. Station. On the same date a change was made in the routing of the C.N.R. transcontinental trains and the Continental Limited, the Montreal-Vancouver train was routed over the T. & N. O. in place of the Trans Canada, the Toronto-Winnipeg train. These changes made it necessary for T. & N. O. trains operating in through connection with the C.N.R. and G.T.R. systems, to arrive at and depart from the C.N.R. Station at North Bay. In order to permit this use of the C.N.R. station by T. & N. O. and G.T.R. trains, a special track connection was installed by the C.N.R. Following this the C.N.R. was permitted the use of the T. & N. O. local freight and locomotive terminal facilities.

Appreciation of the faithful and efficient services of the engineering staff is worthy of record.

I remain yours truly,

S. B. CLEMENT,
Chief Engineer.

GENERAL FREIGHT AND PASSENGER DEPARTMENT

Both Freight and Passenger traffic for the fiscal year ending October 31st, 1921, have been good. Freight traffic was especially heavy for the first seven months, falling off somewhat towards the end of the year due to the general business depression throughout the country. The results of operation however, on the whole have been most gratifying.

Effective May 1st passenger trains 3 and 4 formerly operating between Toronto and Winnipeg were withdrawn and trains 1 and 2 known as the "Continental Limited" substituted. These trains run between Montreal and Vancouver, via G. T. Railway, Ottawa, C. N. Railways, North Bay, T. & N. O. Railway, Cochrane and C. N. Railways, and have been well patronized.

The Board of Railway Commissioners for Canada under their General Order No. 308 granted an increase of 40% in Eastern Canada on freight rates and 20% in passenger fares effective September 13th, 1920. This order stipulated, however, that on January 1st, 1921, the freight rate increases would be reduced to a basis of 35% and the passenger fares to 10%, the remaining 10% to be taken off July 1st, 1921, so that on that date passenger fares went back to their old level.

These increases assisted materially in offsetting the high operating costs and made possible the favorable showing disclosed by our financial statement.

A. J. PARR, G.F. & P.A.

ANNUAL REPORT—TELEGRAPH AND TELEPHONE DEPARTMENT

During the fiscal year ended October 31st, 1921, the Commercial Telegraph and Telephone business has held up well. On April 21st, 1921, in connection with the handling of commercial telephone business, we adopted, in common with the Bell Telephone Company of Canada, a new classification of toll service, which has worked out entirely satisfactorily, and has materially added to our revenue. The telegraph rates have remained unchanged.

The old iron telegraph wires have been replaced with No. 10 N.B.S. copper, through North Bay Junction yard, from the C.N.R. crossing to the town office. Approximately four hundred six-pin cross arms were renewed during the year. The pole line at North Bay Junction was slightly altered account the erection of the new coal chutes.

The circuit of No. 10 N.B.S. copper wire, mentioned in our last report as strung from Cobalt to Dane, was completed to Porquis Junction, and put into service in December, 1920.

Local telephone pay stations were opened at Plaunt's Siding, mileage 149 1-2, and Vimy Ridge, to take care of local requirements.

We suffered no serious interruption account fires or storms during the year.

During the year, thirty-three subscribers' telephones were installed, and thirty-two removed.

The following is a summary of the mileage of telegraph and telephone wire in operation, October 31st:

Kind	Gauge	Use	Mileage
Iron	No. 8 B.W.G.	Telegraph	1,694
Iron	No. 12 B.W.G.	Long distance telephone	177
Iron	No. 12 B.W.G.	Local exchange and party line	308
Copper	No. 9 B. & S.	Telephone train despatching	574
Copper	No. 10 N.B.S.	Long distance telephone	1,128
Copper	No. 12 B. & S.	Long distance telephone	228
Style B	Twisted Pair	Local exchange	66,500 ft.
	Wire Mileage		4,109
	Pole Mileage		341
	Phantom Circuits in operation (miles)		103

All of which is respectfully submitted.

W. J. KELLY,
Superintendent of Telegraphs and Telephones.

PRELIMINARY REPORT
OF NORTHERN C
AND N

By Arthur A. Cole, Mi

Porcupine

The abnormally low and fall of 1920 caused or no storage. The re power supply was m mines adversely affect thaws came early in. Production soon beca was not due to new n of the capacity of the

The exchange pr played an important tion from the gold m mately \$16,000,000, and a half million d

The Hollinger r of 3300 tons, but wa was ample power, then the capacity w the mill running full. As soon as the defin secured, the capacity

At the Dome M tons per day with th

The McIntyre r capacity of 550 ton tons per day is now operation in the sp the graphitic ore, c this mine.

During the ye place with the intr proceeding.

A number of amount of develop

The following the first nine mor

ANNUAL REPORT OF SUPERINTENDENT YEAR ENDING OCTOBER 31st, 1921

I beg to submit the following report on Maintenance of Way and Maintenance of Equipment and Operation for the year ending October 31st, 1921:

Maintenance of Way

The permanent way has been fully maintained during the year. The mileage operated is as follows:

Main Track

	Miles	Miles
Owned and Maintained by the Company	4.92	
Leased from the T. & N. O. Railway Commission, main- tained by Company	5.28	
Maintained by Commission	5.17	
Total Main Track		15.37

Siding and Spurs

Sidings on that part of the line leased from the T. & N. O. Railway Commission,—		
Yard Tracks and Sidings	1.65	
Private Sidings	1.80	
Sidings on that part of the line owned by N. C. Railway,—		
Yard Tracks and Sidings	1.91	
Private Sidings	0.11	
Total Siding		5.47
Total Track ..		20.84

Additions to Road

A switch back and spur siding, with a total length of 1662 feet, was put in at mileage 3.8 Kerr Lake Branch for the Bailey Silver Mines, Ltd., for the handling of ore.

Two spur siding, with a total length of 2159 feet, were put in on the Haileybury Spur to serve the new mill of the Temiskaming Pulp and Paper Co., Ltd.

Maintenance of Equipment

All equipment has been maintained in serviceable condition. The following rolling stock is in service,—

Ten electric motor passenger cars, one combination switching locomotive, express car and snow plow, one motor driven snow plow, two freight cars.

Following a decision
increase of 20% in rates, a
August 8th, 1921.

Cars are now operated
First car leaves New I
after until 10.45 p.m.—the

First car leaves Haile
thereafter until 11.15 p.m.

First car leaves Cobal
thereafter until 10.15 p.m.

Car leaves Kerr Lake
bury, and every two hour

Cars leave Haileybury
a.m., 8.15 a.m., 9.15 a.m.,

Cars leave Cobalt for
a.m., 8.45 a.m., 9.15 a.m.,

In addition to this, (

Kerr Lake and Haileybury
Sundays—two cars le

the week-day schedule.
Respectfully submit

1922

ANNUAL REPORT OF SUPERINTENDENT YEAR ENDING OCTOBER 31st, 1921

I beg to submit the following report on Maintenance of Way and Maintenance of Equipment and Operation for the year ending October 31st, 1921:

Maintenance of Way

The permanent way has been fully maintained during the year. The mileage operated is as follows:

Main Track

	Miles	Miles
Owned and Maintained by the Company	4.92	
Leased from the T. & N. O. Railway Commission, main- tained by Company	5.28	
Maintained by Commission	5.17	
Total Main Track	—	15.37

Siding and Spurs

Sidings on that part of the line leased from the T. & N. O. Railway Commission,—		
Yard Tracks and Sidings	1.65	
Private Sidings	1.80	
Sidings on that part of the line owned by N. C. Railway,—		
Yard Tracks and Sidings	1.91	
Private Sidings	0.11	
Total Siding	—	5.47
Total Track		20.84

Additions to Road

A switch back and spur siding, with a total length of 1662 feet, was put in at mileage 3.8 Kerr Lake Branch for the Bailey Silver Mines, Ltd., for the handling of ore.

Two spur siding, with a total length of 2159 feet, were put in on the Haileybury Spur to serve the new mill of the Temiskaming Pulp and Paper Co., Ltd.

Maintenance of Equipment

All equipment has been maintained in serviceable condition. The following rolling stock is in service,—

Ten electric motor passenger cars, one combination switching locomotive, express car and snow plow, one motor driven snow plow, two freight cars.

Rates and Schedules

Following a decision of the Board of Railway Commissioners an increase of 20% in rates, and a reduction in schedule went into effect on August 8th, 1921.

Cars are now operated as follows,—

First car leaves New Liskeard for Cobalt 6.45 a.m. and hourly thereafter until 10.45 p.m.—the last car at 11.30 p.m. returning to car barns.

First car leaves Haileybury for New Liskeard 6.15 a.m., and hourly thereafter until 11.15 p.m.

First car leaves Cobalt for Kerr Lake 6.15 a.m. and every two hours thereafter until 10.15 p.m.—the last car leaving Kerr Lake at 10.45 p.m.

Car leaves Kerr Lake 6.45 a.m. for Cobalt—running through to Haileybury, and every two hours thereafter until 10.45 p.m.

Cars leave Haileybury for Cobalt 5.45 p.m., 6.15 a.m., 7.15 a.m., 7.45 a.m., 8.15 a.m., 9.15 a.m., 9.45 a.m., 10.15 a.m., and so on until 11.15 p.m.

Cars leave Cobalt for Haileybury 5.15 a.m., 6.45 a.m., 7.15 a.m., 7.45 a.m., 8.45 a.m., 9.15 a.m., 9.45 a.m., 10.45 a.m. and so on until 11.15 p.m.

In addition to this, each Saturday night one car leaves Cobalt for Kerr Lake and Haileybury at 12.00 midnight.

Sundays—two cars leave barn at 7 a.m. and one at 8.00 a.m., following the week-day schedule.

Respectfully submitted.

Yours truly,

W. A. GRIFFIN,
Superintendent.

Nipissing Central

1923

SUPERINTENDENT'S REPORT

I beg to submit the following report on Maintenance of Way and Maintenance of Equipment and Operation for the year ending October 31st, 1922.

Mileage operated during the year was as follows:

Main Track	Miles	Miles
Owned and maintained by Company.....	4.92	
Leased from T. & N. O. Railway Commission, maintained by Company.....	5.28	
Maintained by Commission.....	5.17	
Total Main Track.....		15.37
Sidings and Spurs		
Sidings on that part of the line leased from T. & N. O. Railway Commission,—		
Yard Tracks and Sidings.....	1.55	
Private Sidings.....	1.73	
Sidings on that part of the line owned by N. C. Railway,—		
Yard Tracks and Sidings.....	1.91	
Private Sidings.....	0.11	
Total Sidings.....		5.30
Total Track.....		20.67

The fire of October 4th did a great deal of damage to the track and overhead system of the railway in the towns of North Cobalt and Haileybury. Also two passenger cars were destroyed.

No additions were made to the road or equipment during the year.

The equipment which has been kept in serviceable condition consists of eight electric motor passenger cars, one combination switching locomotive express car and snow plow, one motor-driven snow plow and two freight cars.

Cars were operated during the year as follows:

First car leaves New Liskeard for Cobalt 6.45 a.m. and hourly thereafter until 10.45 p.m.—the last car at 11.30 p.m. returning to car barns.

First car leaves Cobalt for Kerr Lake 6.15 a.m. and every two hours thereafter until 10.45 p.m.—the last car leaving Kerr Lake at 10.45 p.m.

First car leaves Haileybury for New Liskeard at 6.15 a.m. and hourly thereafter until 11.15 p.m.

Car leaves Kerr Lake 6.45 a.m. for Cobalt—running through to Haileybury and every two hours thereafter until 10.45 p.m.

Cars leave Haileybury for Cobalt 5.45 p.m., 6.15 a.m., 7.15 a.m., 7.45 a.m., 8.15 a.m., 9.15 a.m., 9.45 a.m., 10.15 a.m., and so on until 11.15 p.m.

Cars leave Cobalt for Haileybury 5.15 a.m., 6.45 a.m., 7.15 a.m., 7.45 a.m., 8.45 a.m., 9.15 a.m., 10.45 a.m., and so on until 11.15 p.m.

In addition to this, each Saturday night, one car leaves Cobalt for Kerr Lake and Haileybury at 12.00 midnight.

Sundays,—two cars leave barn at 7.00 a.m., and one at 8.00 a.m., following the weekday schedule.

Respectfully submitted,

W. A. GRIFFIN,
Superintendent.

NIPISSING CENTRAL RAILWAY

Mileage

There has been no change in the Main Track mileage and but a very slight increase in Private Sidings.

The mileage operated is as follows:—

Main Track—	
Owned and maintained by Company.....	4.92 miles
Leased from T. & N. O. Ry. Commission:	
Maintained by Company.....	5.28 "
Maintained by Commission	5.17 "
	15.37 miles
Sidings and Spurs—	
Sidings on that part of the line owned by T. & N. O. Ry. Commission:	
Yard Tracks and Sidings	1.65 miles
Private Sidings	1.06 "
	2.71 miles
Sidings on that part of the line owned by N. C. Railway:	
Company Spurs	2.00 miles
Private Spurs	0.11 "
	2.11 miles
Total Track	20.19 "

Equipment

Rolling stock consists of the following:—

- 6 Electric Motor Passenger Cars.
- 1 Combination Switching Locomotive, Express Car and Snow Plow.
- 2 Freight Cars.

Additions to Road and Equipment

There was a siding 160 feet long constructed on the Kerr Lake Branch near the Foster Mine for H. G. Carmichael. This siding is used for the loading of mill rock from the old dumps at that point.

Car Number 6, which was partially destroyed in the fire of March 4th, 1917, was rebuilt and put in service early in the fiscal year.

Rebuilding of Car Barns

The rebuilding of that portion of the car barns, destroyed by fire on March 4th, 1917, was completed early in the fiscal year. As mentioned in last year's report, the roofing and plumbing was done by contract, the balance of the work being

Mr. Lang's farm at New Diskeard, Aug. 17th, 1918.

Sidings and Spurs—

Sidings on that part of the line owned by T. & N. O.

Ry. Commission:

Yard Tracks and Sidings	1.65 miles
Private Sidings	1.03 "

2.68 miles

Sidings on that part of the line owned by N. C.

Railway:

Company Spurs	2.00 miles
Private Spurs	0.11 "

2.11 miles

Total Track	20.16 "
-------------------	---------

Equipment.

Rolling stock consists of the following:—

5 Electric Motor Passenger Cars.

1 Combination Switching Locomotive, Express Car and Snow Plow.

2 Freight Cars.

Fire at Car Barns.

On March 4th, 1917, fire destroyed the north end of the car barns. The part of the building destroyed comprised the offices and the car shed. As the fire occurred in the early hours of the morning the cars were in the building and five of them were completely and one partially burned. It was necessary to operate a restricted service until three more cars, which were purchased in St. Louis, were placed in service.

The rebuilding of the car barns was undertaken and will be completed within a short time. The tar and gravel roof was put on by the Maitland Roofing and Supply Company of Toronto, while the plumbing is being installed by F. R. Gibson, of Haileybury. The remainder of the work is being done by our own forces.

Additions to Road and Equipment.

During the year a through siding 605 feet long was constructed for the Riordan Pulp and Paper Company, near their mill on Foster's Spur, Haileybury.

There is a decrease in the amount of rolling stock owned, due to the fire in the car barns, as noted above.

Maintenance.

The property of the company continues to be maintained in good condition. The buildings and equipment suffered considerable damage through fire as mentioned above, but this damage, at the close of the year, had been largely repaired.

Respectfully submitted,

S. B. CLEMENT.

C. E. & S. of M.

DR. J. W. FRASER, Cochrane, Ontario.

I beg to submit my report for year ending October 31st, 1922, as follows:

Fractured tibia and fibula.....	1 case
Fractured rib.....	1 "
Lacerated hand.....	7 cases
Lacerated scalp.....	1 case
Foreign body in eye.....	8 cases
Crushed foot.....	2 "

These cases as well as numerous minor injuries were treated during the year.

J. W. FRASER,
District Surgeon.

MOTIVE POWER AND CAR DEPARTMENT

Beg to submit the following report of the Motive Power and Car Department for the year ending October 31st, 1922:

Locomotives

Arrangements have been made with the Canadian Locomotive Company, Limited, Kingston, for the rebuilding of six ten-wheel locomotives, Nos. 121 to 126 inclusive. These engines were originally built by the above company in 1908.

Specifications for this rebuilding includes new firebox and smokebox, super-heating, new front end arrangement, new cylinders with piston valves, new front frame rails, new steel front buffer beam, new pilot and extended front coupler. Walschaert valve gear, new spring gear, new steel cab, pneumatic fire door, Nicholson thermic syphon, and brick arch, new steel plate running boards, new water column with gauge glass and gauge cocks, new steam turret, Westinghouse E-T-6 brake complete with 8½ inch cross compound pump, new driver brake rigging and new grate bars complete (table type), with new shaker rigging. The tender will be equipped with self-feeding coal box and new tool boxes.

Box Cars

Arrangements have been made with the National Steel Car Corporation, Hamilton, for the rebuilding of fifty box cars of the series 80000 to 80198.

These cars will be equipped with corrugated steel ends, type D couplers, new brake gear, and new side doors and door fixtures in addition to a general overhauling.

Shop Machinery

During this year the following new machinery tools have been installed:

One 100-ton hydraulic bushing press, and one No. 4 capstan lathe. Order has been placed for a 42-inch geared head engine lathe for delivery early in 1923.

Conductors' Vans

In November, 1921, the Canadian Brill Company, Preston, made delivery of the six vans for which contract was let to the Preston Car and Coach Company.

Electrical Installations

Electric lights were installed in new wash rooms, coach and car department, scale house, and addition to heater shed at North Bay, and necessary electrical work done for new blueprint machine and hydraulic bushing press.

Additions were made to battery charging and welding circuits at North Bay, and existing installations maintained.

Electric lights were installed in new addition to freight shed at Timmins; and repairs, addition and maintenance of electrical installations at the various stations were accomplished.

Engine Despatch

Statement showing the number of engines despatched from the different terminal and divisional points during the year:

Station	Number of Engines Despatched
North Bay Junction.....	7,735
Englehart.....	5,501
Cochrane.....	1,916
Timmins.....	885
Iroquois Falls.....	697
Elk Lake.....	308
Total.....	17,042

The motive power has been generally assigned during the year as follows:

Class of Service	Number of Engines
Passenger.....	16
Freight.....	27
Work.....	3
Switching.....	6

Locomotive Mileage

The following statement shows the mileage made by locomotives belonging to this railway during the year:

Engine Number	Mileage	Engine Number	Mileage
109.....	2,954	136.....	52,301
110.....	5,642	137.....	14,934
111.....	7,987	138.....	41,252
112.....	37,627	139.....	39,534
113.....	34,528	140.....	40,905
114.....	11,887	141.....	38,780
115.....	25,218	142.....	33,281
116.....	28,041	143.....	30,798
117.....	25,365	144.....	26,559
118.....	8,628	145.....	37,314
119.....	18,314	146.....	24,817
120.....	25,480	147.....	27,433
121.....	13,727	148.....	31,468
122.....	5,264	149.....	37,734
123.....	21,754	150.....	41,219
124.....		151.....	38,274
125.....		152.....	16,088
126.....	7,186	153.....	17,634
127.....	37,358	154.....	7,890
128.....	47,766	155.....	14,910
129.....	11,454	156.....	28,836
130.....	32,260	157.....	39,074
131.....	31,309	158.....	47,537
132.....	26,379	159.....	37,371
133.....	46,222	160.....	46,442
134.....	20,062		

Summary of Extensive Repairs to Locomotives

Since November 1st, 1921, the following locomotives have been through the shops at North Bay Junction for repairs:

Given general repair—153, 146, 137, 120, 111, 154, 142, 134, 152, 141, 157, 160, 135.
Given heavy repair—130, 113, 143, 144, 119, 128, 132.
Given light repair—158, 134, 115, 159, 140, 132, 136, 109, 139, 138.

NOTE.—The term "general repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuild. "Heavy repair" refers to cases where engines have received such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushings renewed. "Light repair" covers a case where an engine has received repairs such as renewal of side rod bushings, piston rings and valve rings.

All requirements of the Dominion Railway Commission in regard to washing out and testing boilers, testing staybolts, examining nettings and dampers, etc., have been fully complied with, and during the summer months periodical inspection of all fire-fighting protective appliances has been made by our inspectors.

Repairs to Passenger Equipment

Repairs have been made to passenger equipment at North Bay Junction shops as follows:

Class of Car	General Repair	Light Repair
First class.....	..	4
Second class.....	2	5
Mail and express.....	..	3
Baggage and express.....	..	3
Business cars.....	..	1
Combination cars.....	..	2
Total.....	2	18

NOTE.—The term "general repair" as applied above, refers to cases where a coach has had the interior and exterior finish of car removed, framing refitted, new steel sills applied, and trucks rebuilt. The term "light repair" applies to coaches having seat arms scraped and sanded, interior varnished, outside of car washed down and given two coats of varnish, and trucks repaired.

Coach Cleaning

Statement showing the number of coaches cleaned at the different stations during the year:

Station	Number of Coaches Cleaned
North Bay Junction.....	7,415
Englehart.....	2,206
Cochrane.....	1,852
Timmins.....	1,720
Elk Lake.....	622
Iroquois Falls.....	877

Repairs to Work and Freight Equipment

The Car Department staff have made repairs to flat, Hart, stock and box cars, including general overhauling and rebuilding. All necessary running

DR. J. W. FRASER, Cochrane, Ontario.

I beg to submit my report for year ending October 31st, 1922, as follows:

Fractured tibia and fibula.....	1 case
Fractured rib.....	1 "
Lacerated hand.....	7 cases
Lacerated scalp.....	1 case
Foreign body in eye.....	8 cases
Crushed foot.....	2 "

These cases as well as numerous minor injuries were treated during the year.

J. W. FRASER,
District Surgeon.

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Arrangements have been made with the National Steel Car Corporation, Hamilton, for the rebuilding of fifty box cars of the series 80000 to 80198.

These cars will be equipped with corrugated steel ends, type D couplers, new brake gear, and new side doors and door fixtures in addition to a general overhauling.

Shop Machinery

During this year the following new machinery tools have been installed: One 100-ton hydraulic bushing press, and one No. 4 capstan lathe. Order has been placed for a 42-inch geared head engine lathe for delivery early in 1923.

Conductors' Vans

In November, 1921, the Canadian Brill Company, Preston, made delivery of the six vans for which contract was let to the Preston Car and Coach Company.

These vans are of the T. & N. O. standard type, twenty-nine feet over body end sills, equipped with steel underframes, and four-wheel equalized pedestal trucks. Tare weight is approximately 37,000 lbs.

1923

Additions

Labour was fairly plentiful in the district served by the railway during this year and the programme of betterments to the property and of maintenance of way was well advanced when the disastrous fire of October 4th occurred.

The damage to railway property was extensive in the area where this fire occurred, especially stations and other buildings.

There was considerable damage to the main track between Cobalt and Englehart, but by working from both ends and employing all men available trains were operated through early in the afternoon of October 5th.

Owing to the destruction of a portion of the Jean Baptiste trestle on the Elk Lake Branch, traffic on this branch was interrupted until the repairs to this trestle were completed. A temporary service with trains operating on each side of this trestle was maintained while the repairs were in progress.

A small portion of the trestle M.P. 6 $\frac{1}{4}$ Charlton Branch was destroyed, but this damage was repaired on October 6th, thus there was very little interruption to the train service on this branch due to damaged track or structures.

The principal buildings destroyed were as follows:

North Cobalt—Station, freight shed and oil house.

Haileybury—Station, freight shed, agent's house, section house, tool house, and oil house.

Maybrook—Shelter station.

Thornloe—Station, freight shed, section house and tool house.

Heaslip—Station, freight shed, section house, section bunk house and tool house.

Dack—Shelter station.

Charlton—Combined station and freight shed and section house.

Kenabeek—Section house.

Boarding and other cars are being used as temporary stations and living quarters for section employees until permanent buildings can be provided.

At the close of the calendar year the following buildings had been rebuilt or were under construction:

North Cobalt—Freight shed and oil house completed. Combined station and agent's dwelling being built by contract.

Haileybury—Freight shed, tool house and oil house completed.

Maybrook—Shelter station replaced.

Thornloe—Freight shed completed.

Heaslip—A standard shelter station provided at this place.

Dack—Shelter station replaced.

Charlton—Combined station and freight shed completed.

The station at Thornloe is to be built this winter, while the construction of the station at Haileybury is to be deferred until the spring of 1923. The section dwellings and other buildings destroyed and not yet rebuilt are to be erected early in the summer of 1923.

On the Elk Lake Branch the top portion of the Jean Baptiste trestle was destroyed, necessitating heavy repairs to this structure.

On the Charlton Branch a small portion of the trestle at M.P. 6 $\frac{1}{4}$ was damaged, while on the Long Lake Spur at Charlton the timber trestle was totally destroyed.

Besides the damage to buildings and trestles, a large amount of right-of-way fencing was destroyed on the main line between Cobalt and Englehart, and on the Elk Lake and Charlton Branches.

Although the fire, the railway sidings and spur places a considerable sidings.

The principal

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Extensions tot: lumber yard.

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A kitchen 12 f above this station v

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An extension 3 to the freight shed.

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1923

Although the damage to main track was not large, considering the extent of the fire, the railway suffered a heavy loss in ties, rails and other track material in sidings and spur tracks. This is accounted for by the fact that at many places a considerable quantity of forest products was piled adjacent to the sidings.

The principal additions to property made during the year are as follows:

NORTH BAY JUNCTION

New 150-ton track scales were installed to replace the old ones in order to take care of the increasing business at this place.

Lunch and wash rooms were provided at the coach shop and at the repair tracks.

An extension 12 feet by 14 feet was made to the heater building.

MULOCK AND TOMIKO

Concrete foundations were placed under the section houses at these two places.

MILEAGE 57.4

A spur siding 1199.0 feet long was put in for Wm. Milne & Sons for loading logs.

LATCHFORD

Extensions totalling 530 feet were made to the sidings in A. J. Murphy's lumber yard.

NEW LISKEARD

A new freight shed of brick construction is now being built by contract. This building is 140 feet long by 30 feet wide, provision being made for offices for the staff at this station. The necessary track changes and extensions were made by our own forces.

HEASLIP

A kitchen 12 feet by 16 feet was added to the station dwelling; as noted above this station was destroyed by the fire of October 4th.

ENGLEHART

A new 200-ton mechanical coaling plant of frame construction is now being erected.

The new pump house and six-inch wood pipe line under construction at the close of the last fiscal year was completed.

DANE

A concrete foundation was placed under the kitchen of the section dwelling.

SWASTIKA

An extension 30 feet by 30 feet of frame construction is now being added to the freight shed.

To provide for this extension to the freight shed a considerable quantity of rock was removed from the station grounds by contract.

SESIKINIKA

A concrete foundation was placed under the kitchen of the section dwelling and other small improvements made to this building.

129 1923

RAMORE

A new combined station and agent's dwelling 37 feet by 25 feet with a freight shed 30 feet by 25 feet attached, all of frame construction, is now being built by contract.

To provide a location for this station on the west side of the track, the passing and loading sidings were moved to the east side of the main line.

The passing track was lengthened, the lengths of these two sidings being now 3,251 feet and 856 feet for the passing track and loading track respectively.

MATHESON

A standard stock pen 30 feet by 40 feet was built at this point.

COCHRANE

A spur siding 517.0 feet long was put in to serve the warehouse of the Imperial Oil, Limited.

Owing to the track formerly known as the James Bay spur now being used as the main line for the extension north of Cochrane, a spur siding 750 feet long was put in to serve the warehouses located along the old James Bay spur.

M.P. 24.7 ELK LAKE BRANCH

A spur siding 4,260 feet long was put in for the Matachewan Power Company, Limited, for the handling of supplies and materials for that company's power development at Indian Chutes on the Montreal River.

FIELDING

A standard shelter station was placed at this point.

CONNAUGHT

An extension of 231 feet was made to the St. Maurice Lumber Co.'s siding.

SOUTH PORCUPINE

A side track 590.0 feet long was put in for Geo. D. Hamilton for the handling of lumber to and from his planing mill.

SCHUMACHER

A concrete foundation was placed under the agent's house and a pipeless furnace installed.

TIMMINS

An extension 25 feet by 45 feet was made to the freight shed.

An extension of 99 feet was made to the Geo. Taylor Hardware siding and an extension of 264 feet was added to the siding at "A" Avenue for John W. Fogg.

Renewals

A large number of wooden culverts were replaced with permanent concrete pipe culverts and necessary repairs made to bridges and buildings by the forces of the B. & B. Department.

No rail renewals were made during the year and only about four miles of ballasting done on the Second District.

The tie renewals were as follows:

Roadmaster's District No. 1.....	52,352 ties
" " " 2.....	72,184 "
" " " 3.....	49,524 "

Equipment, roadb
throughout the year.
by the Master Mechan
trict Surgeons.

REP

DRS. McMURCI

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DR. J. S. M

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October 31st, 1922.

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All of which is re

SUPERINTENDENT'S REPORT

I beg to submit the following report of the Transportation, Maintenance of Way, Mechanical, and Telegraph and Telephone Departments of the Temiskaming and Northern Ontario Railway for the year ending October 31st, 1923.

Time Table Changes

Necessary alterations in train service have been made to meet traffic requirements under current time table effective Sunday, September 30th, 1923, train service is as follows:

MAIN LINE

Trains Nos. 17 and 18 daily except Sunday between North Bay C.P.R. depot and Cochrane. C.P.R. sleeper operated on this train making through service between Montreal and Timmins.

Trains Nos. 46 and 47 daily except Sunday between North Bay C.N.R. depot and Timmins. Effective Monday, August 27th, 1923, parlor cafe cars were operated on these trains between North Bay and Timmins. These trains are in interline service operating to and from Toronto via C.N.R.

Trains Nos. 1 and 2, "The Continental Limited," operate daily between Montreal, Que., and Vancouver, B.C., via North Bay and Cochrane.

BRANCH LINES

Elk Lake Branch—Mixed train service daily except Sunday and on Thursdays only, two trains each way connecting with main line trains at Earleton Jct.

Charlton Branch—Two mixed trains daily except Sunday in each direction, making connections with main line trains at Englehart.

Iroquois Falls Branch—Four passenger trains daily except Sunday in each direction, making connections at Porquis Junction with main line trains and with trains operating on the Porcupine sub-division. Sunday—Two passenger trains each way, giving through service to and from points on the Porcupine sub-division and connecting with main line trains.

Porcupine Branch—Four passenger trains each way daily except Sunday between Timmins and Porquis Junction, with one passenger train each way on Sunday, giving through service to points on the Iroquois Falls sub-division and connecting with main line trains.

Stations Opened

Val Gagne station was opened as an agency point on March 7th, 1923.

Maintenance of Way and Structures

Mileage operated is as follows:

	Miles	Miles
Main Line		
North Bay to Cochrane.....		252.29
Branch Lines		
Charlton Branch.....	7.60	
Porcupine and Iroquois Falls.....	40.11	
Elk Lake Branch.....	28.50	
		<hr/> 76.21

Yards and Sidings		
Main line and branches.....	116.95	
Liskeard spur.....	1.12	
Mattagami River spur.....	2.96	
		121.03
Double track.....		1.70
Leased to Nipissing Central Railway		
Main track.....	10.45	
Yard tracks and sidings.....	1.55	
Private sidings.....	1.73	
		13.73
Total Mileage.....		464.96

On September 23rd the Canadian National Railways discontinued the use of the Nipissing Junction spur as an entrance to North Bay for the trains from the south, a connection having been constructed between the Ottawa and Toronto lines of that railway a short distance south of Nipissing Junction. The Nipissing Junction spur, extending from North Bay Junction to Nipissing Junction, a distance of approximately 2.10 miles, was constructed by the T. & N. O. Railway in 1911, and leased to the Grand Trunk Railway System, the operation of trains over this spur starting in December of that year.

There was a small decrease in the mileage of yard tracks and sidings which, together with the abandonment of the Nipissing Junction spur, accounts for the decrease in total mileage operated.

Additions

A large programme of betterments to the property and of maintenance of way work was carried out during the year, also the buildings to replace those destroyed by the fire of October 4th, 1922, have all been completed, with the exception of the station at Haileybury, which is still under construction.

All work, with the exceptions as noted below, was done by our own forces.

The buildings erected to replace those destroyed by the fire of October 4th, 1922, are as follows:

North Cobalt—A combined station and agent's dwelling, 35 feet by 21 feet, of frame construction, was built by contract. H. L. Gomoll was the contractor for this building.

A freight shed, 50 feet by 25 feet, and a small oil house, both of frame construction, were built at this place.

Haileybury—A brick passenger station, 93 feet by 28 feet, is now under construction by contract. Hill-Clark-Francis, Limited, of New Liskeard, are the contractors for this building. Filling is now being delivered by our own forces to make the necessary roadway approaches at the rear of the new station.

A freight shed, 150 feet by 30 feet, a small oil house, a standard agent's dwelling, a section dwelling, 45 feet by 22 feet, and a standard tool house, 14 feet by 16 feet, all of frame construction, were built at this point.

Maybrook—A standard shelter station, 30 feet by 10 feet, was built at Maybrook.

Thornloe—A combined station and agent's dwelling, 44 feet by 25 feet, a freight shed, 50 feet by 25 feet, a section dwelling, 27 feet by 26 feet, and a section employees' bunk house, 26 feet by 18 feet, all of frame construction, also a metal-clad tool house, 14 feet by 16 feet, were built at this place.

Heaslip—A standard shelter station, 30 feet by 10 feet, a section dwelling, 28 feet by 26 feet, and a section employees' bunk house, 26 feet by 18 feet, all of

frame construction at this point.

Dack—A standard flag stop.

Charlton—A standard section In addition a section

Kenabeek— and in addition a Both these buildings

In addition Elk Lake branch rebuilt.

The principal North Bay construction, is now Stevens are the

A standard at Gore Street, just east of Chip office building.

North Bay A crossover ment of the C.N.

No. 2 yard made into a thorough Doherty—

for loading logs Temagami restaurant.

A new drainage Mileage 10

improve the fare Railway.

New Liske last fiscal year

A spur siding their warehouses

An extensive Geo. Taylor Hotel wood Avenue.

Heaslip— Englehart

close of the last dwelling at the

A shelter built in a suite

Mindoka-point.

Dane—Tl

- Can't find a science/
engineering journal
in the Library?

- Need an article fast?

frame construction, also a metal-clad tool house, 14 feet by 16 feet, were built at this point.

Dack—A standard shelter station, 30 feet by 10 feet, was provided at this flag stop.

Charlton—A combined station and freight shed, 120 feet by 25 feet, and a standard section dwelling, both of frame construction, were built at this place. In addition a section employees' bunk house was provided.

Kenabeek—The standard section house destroyed at this place was rebuilt, and in addition a section employees' bunk house, 26 feet by 18 feet, was provided. Both these buildings are of frame construction.

In addition to the above, the top portion of the Jean Baptiste trestle on the Elk Lake branch, which was destroyed by the fire of October 4th, 1922, was rebuilt.

The principal additions to property made during the year are as follows:

North Bay—An addition, 80 feet by 40 feet, of brick and steel frame construction, is now being made to the Head Office building. Messrs. Jeffery and Stevens are the contractors for this building.

A standard frame section dwelling is being built on Commission's property at Gore Street, by the Standard Planing Mills, Limited, in exchange for lot 34, just east of Chippewa Creek, which is being used by that firm as a site for a new office building.

North Bay Junction—An extension was built to the shelter for the rail saw.

A crossover was installed in the east end of the yard to facilitate the movement of the C.N.R. freight trains to and from this yard.

No. 2 yard siding (formerly siding on old coal chutes) was extended and made into a through siding.

Doherty—A spur siding 950 feet long was put in for Wm. Milne and Sons, for loading logs.

Temagami—Alterations and improvements were made to the station restaurant.

A new drain and a septic tank were installed for the station lavatories.

Mileage 109 $\frac{3}{4}$ —A new transfer siding 780 feet long was constructed to improve the facilities for the interchange of traffic with the Nipissing Central Railway.

New Liskeard—The new freight shed under construction at the close of the last fiscal year was completed. This building was erected by contract.

A spur siding 373 feet long was put in for Imperial Oil, Limited, to serve their warehouse at this place.

An extension of 155 feet was made to Conlin and Walsh's siding for the Geo. Taylor Hardware, Limited, to serve this firm's warehouse, south of White-wood Avenue.

Heaslip—A well for the section dwelling was drilled by contract.

Englehart—The 200-ton mechanical coaling plant under construction at the close of the last fiscal year was completed.

An extension, 30 feet by 15 feet, of frame construction, was made to the dwelling at the greenhouse.

A shelter for the steam crane, 50 feet by 15 feet, of frame construction, was built in a suitable location.

Mindoka—A standard shelter station, 30 feet by 10 feet, was built at this point.

Dane—The main line and the passing siding in Dane yard were lifted

and ditches dug adjacent to these tracks to improve the condition of the tracks through this yard.

Swastika—The extension to the freight shed under construction at the close of the last fiscal year was completed.

Mileage 169.5—A side track 355 feet long was put in for Knight Bros. and McKinnon Limited, for the loading of forest products.

Ramore—The combined station and agent's dwelling with freight shed attached, under construction at the close of the last fiscal year, was completed. This building was erected by contract.

A well to serve the section dwelling and the agent's dwelling was drilled by contract.

Matheson—A platform for the unloading of automobiles and heavy machinery was built at this station.

Mileage 216.7—An extension of 462 feet was made to the public spur siding for Scace and Niemi to serve their sawmill at this point.

Porquis Junction—A wooden shelter was built around the steel water tank at this place.

Niddville—A side track, 405 feet long, adjacent to the passing siding, was put in for J. Drinkwater for the loading of forest products.

Cochrane—A basement with a furnace and lavatories is now being built under the freight shed office.

Iroquois Falls—A side track, 637 feet long, was put in to increase the facilities for handling carload shipments at this station.

Mileage 11.0, Porcupine Branch—A siding, 1,580 feet long, was put in for T. S. Woollings Co., Ltd., to increase the facilities for loading pulpwood at this point.

Mileage 32.5, Porcupine Branch—An extension of 120 feet was made to the spur siding of the Hollinger Consolidated Mines, Limited.

Timmins—A spur siding 369 feet long was put in for the National Grocers, Ltd., to serve their warehouse.

An extension of 162 feet was made to J. W. Fogg's siding at "A" Avenue.

Mileage 12.3, Elk Lake Branch—An extension of 99 feet was made to the public side track at this point for McCauley and Robinson, for loading forest products.

New right-of-way fencing was built as follows:

On west side of station grounds at Temagami, 330 rods, and along the north side of the station grounds at Englehart, 344 rods. The fence at Englehart was built by contract.

Considerable widening of embankments was done at various locations on roadmaster's districts No. 1 and No. 2.

A large number of public and private road crossings were installed on the main line and branches.

Renewals

Owing to the amount of other work to be done, only a few wooden culverts were replaced with permanent concrete pipe culverts by the B. & B. Department, but very extensive repairs were made to bridges, buildings, water service lines and station platforms by this department. The concrete station platforms at Temagami, Cobalt and Englehart were repaired and put in good condition. The roof of Cobalt station was reshingled. The wooden platform at New Liskeard station and the tub and substructure of the water tank at Cochrane were renewed. Repairs were made to a large number of other buildings and structures.

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Repairs to buildings completed or now being done by contract include the repairing of the underside of the concrete roofs on the roundhouses at North Bay Junction and Englehart by the Gunitite method and the applying of new rubberoid covering to these roofs and to the roofs on the machine shops at both these points, and also the heating and plumbing systems in Englehart station and all the Commission's buildings at Iroquois Falls were thoroughly overhauled and put in good condition.

The standard colour of paint was changed this year from green with a buff trim to a body colour of antique brown and a trim of tan brown. All new buildings were painted with the new standard colours and in addition the buildings at the following places were repainted:

Mulock, Tomiko, Redwater, Temagami, Owaissa, Rib Lake, Earlton Jct., Keyson, Porcupine, South Porcupine, Schumacher and Timmins.

Rail Renewals

New 90 lb. A.R.A. type A. rail was supplied for 25 miles on track but not all this rail was laid at the close of the fiscal year, although this work will be completed by the end of November.

At the close of the fiscal year new 90 lb. rail had been laid as follows:—

M.P. 9.25 to M.P. 15.25—Main line.....	6.0 miles.
M.P. 30.8 to M.P. 33.3 — "	2.5 "
M.P. 94.0 to M.P. 99.0 — "	5.0 "
M.P. 104.0 to M.P. 109.9 — "	5.9 "
Total.....	19.4 miles.

The balance of the new 90 lb. rail is being laid from M.P. 1.0 north on the main line.

The new rail was laid with continuous joints, and tie plates are being applied on both curves and tangents.

Ballasting

Main track was ballasted as follows:—

M.P. 99.0 to M.P. 102.0.....	2.0 miles.
M.P. 120.5 to M.P. 128.0.....	7.5 "
M.P. 171.8 to M.P. 178.0.....	7.2 "
Total.....	16.7 miles.

In addition to the above a considerable amount of ballast was delivered for patching on Districts No. 1 and No. 2.

The total number of ties used during the year is as follows:—

	District No. 1	District No. 2	District No. 3	Total
Renewals—Main track and sidings.....	38,684	60,602	58,905	158,191
N.C. Railway.....	.....	4,721	.....	4,721
Construction and other purposes.....	283	1,015	1,158	2,456
Total.....	38,967	66,338	60,063	165,368

Approximately 9,000 rods of right-of-way fence was rebuilt between New Liskeard and Earlton Junction by contract.

MOTIVE POWER AND CAR DEPARTMENT

Beg to submit the following report of the Motive Power and Car Department, for the year ending October 31st, 1923:

Locomotives

Contract has been let to the Canadian Locomotive Company for four Mikado type locomotives, delivery of same to be made by the end of 1923.

These engines will be of the T. & N. O. Ry. standard freight type with the addition of Boosters and feed water heaters. Other equipment includes Schmidt superheaters, Ragonnet reverse gear, Walschaert valve gear, Commonwealth Co's. trailing truck, Commonwealth Co's cast steel tender frame, vestibule cab, Franklin fire door, Nathan water column, Pyle-National electric headlight, Westinghouse E-T-6 brake with 8½-inch cross compound air-pump.

Arrangement has been made with the Canadian Locomotive Company, for the rebuilding of one, ten-wheel locomotive No. 125 and one Mikado locomotive No. 146.

Freight Cars

The National Steel Car Corporation delivered fifty steel-frame single sheathed box cars—series Nos. 80400 to 80498, (even numbers).

These are 36 ft. long inside, 80,000 lbs. capacity, and are equipped with A. R. A. cast steel trucks, A. R. A. 6 in x 8 in. couplers with Cardwell draft gear, Camel door fixtures and Hutchins steel roof.

The National Steel Car Corporation also completed the rebuilding of fifty box cars of the series 80000 to 80198.

Up to the end of October, 1923, application of steel draft sills has been made to 121 cars of wood construction of various classes, and same have been equipped with A. R. A. No. 2 trussed brake beams and standard safety appliances.

Shop Machinery

During the year the following new tools have been purchased:

One 42-in. engine lathe. One 10-ft. plate flanging clamp. Two 50-ton Duff high-speed jacks. One double spindle wood shaper.

Electrical Installations

The necessary electrical work for the following was completed during the year:

NORTH BAY

Electric drive for 42-in. engine lathe. Extensions to battery charging circuits and yard lighting facilities, and numerous additions for lighting the various shops and offices.

NORTH COBALT & HAILEYBURY

Electric wiring installed in new freight shed.

Locomotive Mileage

The following statement shows the mileage made by locomotives, belonging to this railway during the year:

Engine Number	Mileage	Engine Number	Mileage
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126.....	28,642	153.....	33,607
127.....	40,086	154.....	25,752
128.....	31,408	155.....	34,973
129.....	30,131	156.....	28,947
130.....	34,872	157.....	37,881
131.....	21,710	158.....	45,080
132.....	55,489	159.....	36,766
133.....	65,974	160.....	52,367
135.....		200.....	38,460

Summary of Extensive Repairs to Locomotives

Since November 1st, 1922, the following locomotives have been through the shops at North Bay Junction for repairs:

Given general repair—157, 139, 143, 200, 127, 128, 144, 152, 137, 110, 116, 158, 113, 145, 119.

Engines numbers—121, 122, 123, 124, 125, 126 and 138 received general repairs at the Canadian Locomotive Works, Kingston, Ontario.

Given heavy repairs—111, 129, 122, 112, 115, 120.

In addition to the above, engine 200 received heavy repairs at the Canadian Locomotive Works, Kingston, Ontario.

Given light repair—130, 145, 147, 148, 120, 123, 159, 111, 118, 146, 150, 133, 131, 156, 149, 143, 129, 200, 135, 148, 117, 140.

NOTE.—The term "General Repair" as applied above refers to cases where an engine has been given a thorough overhauling and rebuild. "Heavy Repair" refers to cases where engines have been given such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushing renewed. "Light Repair" covers a case where an engine has received repair such as renewal of side rod bushings, piston rings and valve rings.

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The exact location of a terminal has not been made, but it should be on the west side of the estuary of Moose River; not far from Revillons, possibly a few miles further down the harbor where the existing channel is deeper.

A location with maximum grades of one half of one per cent. and maximum curvature of four degrees has been obtained. Except in the vicinity of New Post, M. 73 to M. 78, the grading throughout is very light. At this point very heavy work will be required in crossing a section of badly broken country. However, there will be very little rock excavation encountered. The bridge across the Moose River, M. 134, will be quite a large structure, probably one thousand feet long, but long spans will not be required as foundation conditions are good. In addition, smaller structures will be required at the following rivers: Onokawana River, M. 118, Otakawakegan River, M. 159, Cheepask River, M. 163, Chemahegon River, M. 171 and Khawatabohegon River, M. 174.

Nipissing Central Railway Company Swastika Branch

A decision having been reached to build a branch line of railway from Swastika to Larder Lake under the charter of the Nipissing Central Railway Company, tenders were called for grading, track-laying and ballasting, and on June 14th, 1923, a contract was awarded to Messrs. Sinclair and Sinclair of Toronto. The contract calls for track to be laid from Swastika to Larder Lake on or before December 31st, 1923, and the entire work to be completed on or before September 1st, 1924.

This branch has maximum grades of 1.5 per cent. compensated for curvature, and maximum curvature of 12 degrees. The distance from Swastika to a suitable station site near the Crown Reserve and Associated Gold Fields properties at Larder Lake is twenty-three and one-half miles. Surveys for a further extension of the branch to the interprovincial border, or beyond to the Lake Fortune and Rouyn gold area in the Province of Quebec, are now being made.

Additional Track and Structures

Under the direction of the Engineering Department, during the year, a number of additions and betterments have been made to the operated lines of the Commission. The more important of these are:

FUEL STATIONS

The new mechanical coaling station at Englehart, of 200 tons capacity, was completed.

GENERAL OFFICE BUILDING

An addition to the general offices is being made to accommodate the entire office staffs of the Commission and its operating officers. This addition is three-stories high, and 42 ft. 9 ins. wide and 80 ft. long. It is of solid brick with steel and tile floor construction. The contractors, Messrs. Jeffrey and Stevens of North Bay, will complete the new building in February, 1924.

STATION BUILDINGS

At the beginning of the year a new brick freight shed and office was under construction at New Liskeard. This has been completed and is now in use.

A new frame combined station and agent's dwelling that was under construction at Ramore was also completed.

It was necessary to build a number of stations and freight sheds to replace those destroyed by forest fires on October 4th, 1922.

At Haileybury, a brick station, 27 ft. by 93 ft., is being built under contract by Messrs. Hill, Clark and Francis, of New Liskeard. This station is of attractive design and, when the grounds are graded to conform to a plan submitted by the landscape architect retained by the town, it will add greatly to the appearance of the town. The building will be completed about December 15th, 1923.

At Haileybury a new frame freight shed, 30 feet by 150 feet, was built by the Commission's forces.

At North Cobalt, a new frame combined passenger station and agent's residence was built on the foundation of the former building by H. L. Gomoll, contractor of North Bay. A frame freight shed was also built by day labour.

At Thornloe, a frame combined passenger station and agent's residence was built on the old foundation, also a new freight shed, both by Commissioner's forces.

At Charlton a frame station and freight shed, 25 feet by 120 feet, was built by Commission's forces to replace the building destroyed by fire.

EMPLOYEES' DWELLINGS

A new agent's residence at Haileybury and new section houses at Haileybury, Thornloe, Heaslip, Charlton and Kenabeek were built by Commission's forces to replace those destroyed by fire.

Yours truly,

S. B. CLEMENT,
Chief Engineer.

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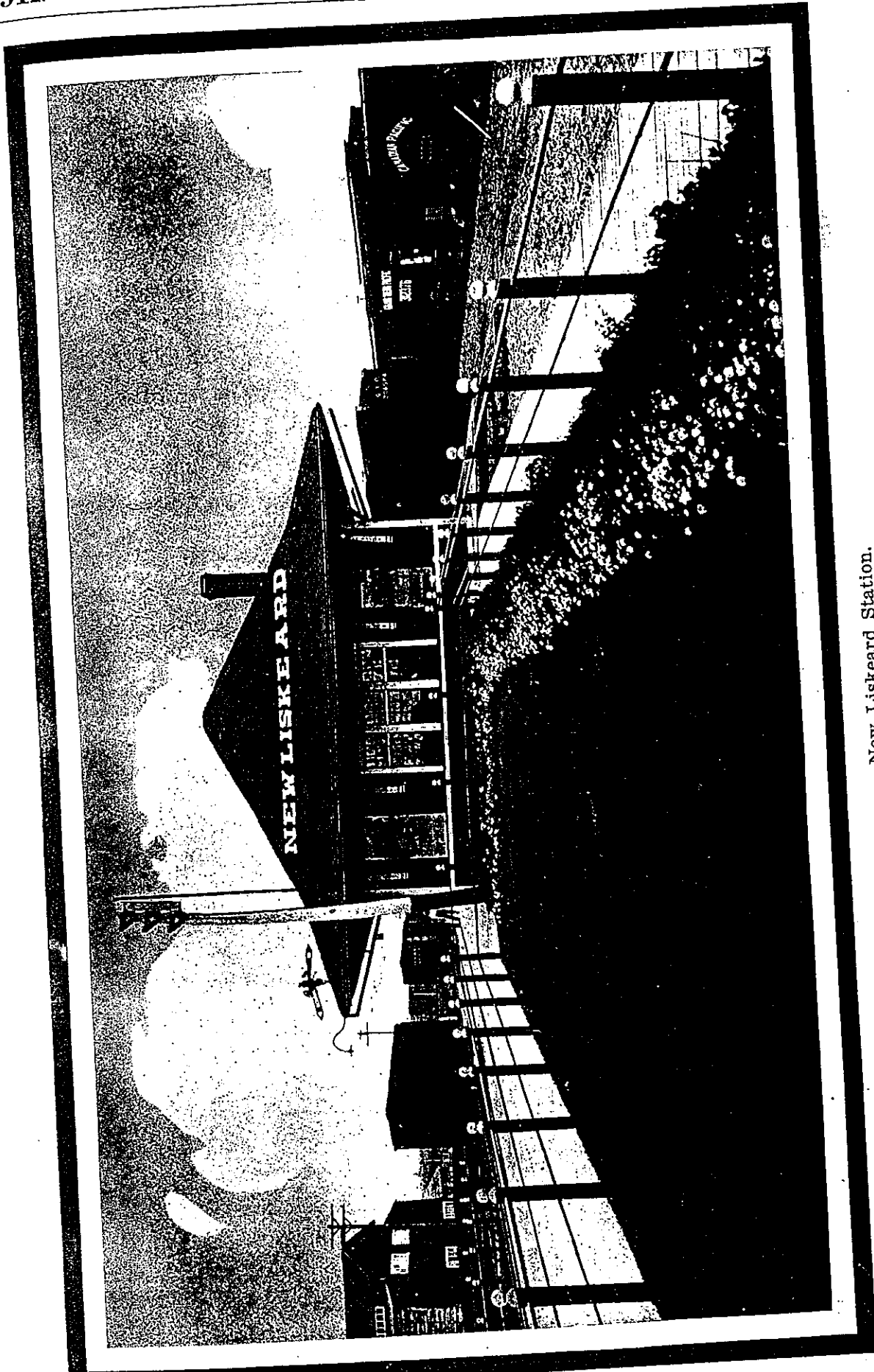
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New Liskeard Station.

Train No. 3, May 19th, struck and killed slightly injured.

May 22nd, A. Caminer, thumb jammed while unloading rails on steel siding, Englehart.

Extra 116, May 25th, M.P. 25½, struck Jas. Bernard walking, killing him instantly.

May 29th, Wm. Irvine injured by jumping off tender of engine, north end New Liskeard yard.

June 6th, B. Turscko, employee, slightly bruised by hand car jumping track, mileage 91¾.

Train No. 2, June 8th, Cobalt, runaway horses collided with train, slight damage to coach, none to horses.

Train No. 2, June 11th, struck and killed unknown man walking at mileage 119½.

June 15th, slide of track, Giroux Lake, Kerr Lake branch, causing five T. & N. O. cars to go down.

Train No. 11, June 17th, six cars derailed at four poles north of mileage 48.

June 12th, engine 110, jumped track five and a half miles from Englehart on Charlton branch.

June 19th, engine 121, derailed 1¾ miles from Englehart on Charlton branch.

Train No. 11, June 21st, while going around curve, mileage 109, P.R.R. 210437, jumped track, damaging track considerably.

Train No. 47, January 23rd, unknown man found dead, M.P. 87, evidently killed by circus train previous night.

Train No. 12, June 24th, G. T. 46160, derailed, mileage 10½, blocking main line five hours.

Train No. 11, July 3rd, mileage 59¾, leading trucks P. & L. E. 704358 derailed, damaging track considerably, blocking main line eight hours.

Train No. 12, July 9th, C. P. 47500, derailed, M.P. 122, account broken flange on wheel of car, main line cleared after 24 hours.

Train No. 11, July 15th, when lifting boarding car at Doherty, Brakeman Kelly had two toes, right foot, crushed, wheel of car passing over same.

Extra 125, July 18th, mileage 34¾, derailed two cars, blocking main line 7 hours.

Extra 126, July 25th, struck and killed Wm. Lefebvre, Matheson, who was walking along track.

Aug. 6th, F. Contri, employee, while tightening bolts in yard at North Bay Junction, wrench slipped and striking eye, cut and blackened slightly.

Aug. 21st, G. Riostona, fell off hand car, mileage 1, slightly bruised.

Aug. 31st, Krugerdorf Pit, piece of clay gave way from top of bank, rolling down, struck H. Hughes, employee, resulting in severe sprain.

Train No. 46, September 13th, struck Chris. Mann, Haileybury station, while pulling out. Uninjured.

September 30th, Round Lake Pit, M. P. 156½, F. Marion, employee, had fingers pinched between rails while loading lorry.

October 3rd, Round Lake Pit, M.P. 156½, P. Marion right leg injured by rail slipping off skids, resulting in compound fracture.

October 6th, Extra 108, Conductor Baisley struck on head by balance weight of snow plow, Charlton branch, resumed work in two weeks.

Train No. 47, October 12th, struck T. Nixon at Latchford, slightly injured, was walking along side of track.

Train No. 11, October 31st, C. P. 41440, derailed, M.P. 48½, account broken flange on wheel, main line blocked eight hours.

Extra 150, November 9th, when switching, Kerr Lake Junction, L. S. & M. S. 538209, and B. & L. E. 13496, left track at switch.

Train No. 14, November 28th, when going into siding, mileage 81½, T. & N. O. 80046, had leading trucks derailed, Brakeman T. White and J. Quesnel, who were on top of car jumped, were unhurt, with exception of few scratches.

Extra 105, December 9th, Matheson, W. Stewart, brakeman, while attempting to cut hose, was struck and instantly killed.

Train No. 47, December 7th, Latchford, Jas Kingston fell off platform at station, train standing still, head slightly cut.

December 9th, while Car Inspector R. Forster was watering train No. 46, C. P. R. yard, North Bay, yard engine coupled on to train as he was jumping from end of one car to another causing him to slip on roof; foot came down on top of diaphragm plates, crushing and bruising, no bones broken.

Train No. 12, December 15th, G. T. 10527, derailed, mileage 42½, delayed train 7 hours.

Report of Road Department.

(Wm. Young, General Roadmaster.)

Distribution of Labour.

Maintenance of Way and Structures, Kerr Lake Branch.

Superintendence	\$3 31
Roadway and track	52 50
Removal of snow and ice	57 75

\$113 56

Maintenance of Way and Structures. First Division

Superintendence	\$754 53
Ballast	81 85
Ties	667 88
Rails	726 68
Other track material	24 27
Roadway and track	54,399 31
Roadway and track, Northland Mining Co.'s spur, M.P. 81½	184 13
Removal of snow and ice	10,003 19
Bridges, trestles and culverts	3,308 07
Grade crossings, fences, cattle guards and signs	337 24
Signals and interlocking plants	67 84
Telegraph and telephone lines	54 06
Buildings, fixtures and grounds	52 08
Roadway tools and supplies	685 62
Work equipment—repairs	75 68
Other expenses	165 17

\$71,587 60

it found necessary to reinforce the bank by cross-logging. This was not spaced closely, but about six cross logs were put under each rail length. In all, three-quarters of a mile of bank was thus treated.

While ballasting, two engines became derailed by rails, which rails had not been spiked, sliding sideways upon the ties. In neither case did the engines settle appreciably into the muskeg. Next spring, while operating, when frost is coming out, great care will be required. By ballasting the weak places as they develop, the track may be kept open, and after being completely drained and ballasted, will meet every requirement.

Construction of Branches.

Kerr Lake Branch, McQuigge & Hunt, Contractors.—The grading was so far completed by the contractors that tracklaying was started by the Commission at the beginning of the year. Many delays were occasioned by the contractors not having the grading and timber work completed. The Provincial Mine was reached the latter part of February. At this point a siding was at once put in to permit the shipment of silver ore, which had been bagged, ready, for some time.

The trestle at station 175, about half a mile from Kerr Lake terminus, was reached by the middle of March. While timber was being supplied and trestle erected by contractors a delay to track laying of almost three months occurred. During this delay to track laying, ballasting and filling was being done by the Commission.

The bay of Giroux Lake was crossed by a low, narrow rock fill. The bank was made of proper width and grade by the Commission with sand filling. On June 12th a slide of this light material occurred, carrying the track down 12 feet. The original rock dump remained in place and the fill was again brought up to grade with sand.

Ballasting was completed about the middle of July.

An attempt was made to accommodate the mine owners served by this branch by shunting cars of coal, etc., to the mines before track was ballasted. Cars continually got off track, owing to rough grade, so it was reluctantly decided to accept no more freight until track was ballasted.

Many of the mines are now served by provided sidings off the branch, and at Kerr Lake, sidings have been built by the Commission for general delivery of freight.

Charlton Branch, Canadian Construction Co., Contractors.—Early in the year steel was laid by the Commission from Englehart westward, a distance of about two miles. It was not until May that contractors had the rock work in condition to allow of track laying being resumed. Track was laid into Charlton in June and the work of ballasting, filling trestles and bringing up to grade the many sags vigorously carried forward by the Commission.

While this work was going on freight in car loads was placed into Charlton by the construction trains, and every effort made to serve the people.

A regular train service, twice per week, was established October 24th. This was made daily on Nov. 19th.

Sidings to accommodate traffic have been built at Charlton, and about midway between Charlton and junction with main line.

Haileybury Spur, McQuigge & Hunt, Contractors.—Work on the construction of this spur from the main line, about mile 110 to Moore's Cove, on Lake Temiskaming, was started as soon as the frost was out of the ground. Grading was completed in August.

Track laying and ballasting has been done by the Commission.

Report of J. H. Black, Superintendent.

Herewith Reports, year 1908, of motive power and car department, Arthur Allan, master mechanic, maintenance of way and road department; Wm. Young, general roadmaster, and bridge and building department; J. J. O'Neil, master of bridges and buildings. The year 1908 was an exceedingly good one in which to do outside work.

You will note our motive power and rolling stock has been kept in good condition during the year; that Charlton and Kerr Lake branches have been completed, and newly constructed line, Englehart to Matheson, brought up to standard adopted by Commission, and, structures and buildings have been kept in good condition. Several new sheds constructed to accommodate the public and to properly house and care for our materials.

During the year two telegraph wires have been strung, Englehart to Cochrane, two, Englehart to Charlton, and two, New Liskeard to Temagami, continuing the latter, Temagami to North Bay.

During the year we have despatched the following:—

	Northbound.	Southbound.	
Passenger Trains.....	1,071	1,070	
Freight Trains.....	903	907	
Mixed Trains.....	4	4	
Non Revenue Trains.....	104	138	
Work Trains.....			690
	2,082	2,119	690
Loaded Cars.....	14,913	17,033	
Empty Cars.....	10,430	8,989	
	25,343	26,022	

No serious accident occurred during year. Herewith list of all accidents.

A Judd, unloading ties, North Bay Junction, January 11th, foot caught between two ties, jamming and breaking one toe.

Train No. 12, January 29th. Six cars, baggage car 17 and van 58 derailed, mileage 50. Auxiliary necessary to clear track.

Extra 115, February 2nd, snowplow struck man walking, named McKain, at Cobalt, not injured.

February 6th, snowplow No. 1 derailed, M.P. 26, caused by point of plow catching end of guard rail. F. Veto, employee, hip bruised. Plow burned.

February 7th. While crane was replacing car M.P. 50, derailed January 29th, car fell out of hooks, falling on W. Bird, employee, injuring quite seriously. Snow broke the fall considerably.

Extra 110, February 18th, engine running tender first, M.P. 95½, struck A. Butler, employee, Gillies Bros., who was lying on track under influence of liquor, killing him.

Engine 109, of passenger extra, March 2nd struck A. R. Macdonell's engine 19, mileage 123½, derailing tender.

Extra 105, May 2nd, G. T. 12311, while being shoved over trestle, Kerr Lake branch, mounted rail and fell from bridge.

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.....	16,974
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.

The following first class coaches are now undergoing repairs at the Preston Car & Coach Co's plant, numbers 101 and 103.

Second hand coaches 16 and 20 have been fitted up to meet the requirements of Contractor T. S. Scott, repainted and shipped during the month of May.

Coach 22, which was purchased second hand, has had repairs made to draft timbers during August. This coach was fitted up with a partition to be used as temporary waiting room and station at Charlton, and was shipped from North Bay shop on October 26th, 1908.

Baggage and mail car No. 7 is at present in our own shop undergoing repairs.

Repairs to Conductors' Vans.

Van No. 50 repaired and painted and turned out for service August 5th, 1908.

Van No. 51 overhauled, painted and varnished, and turned out during June.

Van No. 55, repaired, repainted and varnished, and turned out for service, November 7th, 1908.

Van No. 57, overhauled, repainted and delivered for service September 16th, 1908.

Repairs to Freight Cars.

Necessary repairs and renewals have been made by the Car Department Staff at North Bay and Englehart, to our freight cars, also those of foreign roads, handled in interchange. Bills have been rendered for repairs made to foreign cars in accordance with schedule of prices laid down by the Master Car Builders' Association. The required number of flat cars have been equipped with aprons for use in ballast service.

Auxiliary Equipment.

The road is now equipped with steam wrecking cranes at North Bay and Englehart, also an auxiliary boarding car and tool car for each outfit. One flat car has been fitted up with cabin at one end for use in connection with the Englehart Auxiliary. This car also carried the crane apparatus.

Official Car "Temagami."

Official car "Temagami" has been maintained in good condition and repairs made as required.

Official Car "Abitibi."

The car "Abitibi" has been fitted up for use of the Paymaster in going over the line, with necessary counters, etc.

Careful inspection is at all times made to our passenger and freight equipment, particularly wheels and axles, and wheels are changed when the flanges wear has reached the prescribed limit.

New Conductors' Vans.

Four new vans, standard pattern, have been received from the Rathbun Company, of Deseronto, Ont., during March, and are numbered 59, 60, 61 and 62.

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London Free Press
May 11 1936

T&NO will build
roundhouse at Timmins
N. Bay May 10

Construction of a
six stall engine roundhouse at
Timmins placing in service
two new passenger locomotives
and maintenance of way operations
which will provide summer
employment for more than 200 men
are features of the summer
program of the T&NO Ry as
announced yesterday by
G.M. A.H. Cavanagh.