

ONTARIO AND
QUEBEC RAILWAY
DIARY

C H RIFF

Fast C.P.R. Run, Toronto-Peterborough

Employing a Budd RDC Diesel-powered self-propelled car, the Canadian Pacific inaugurated an additional passenger service between Toronto and Peterborough, Ont., September 27, in which the 77-mile trip is made in 80 minutes, which is exceptionally fast time in view of the fact that a good percentage of

September 27
1954

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the distance is within the Toronto terminals area. In the service, daily except Sunday, the car leaves Toronto 11 a.m. to arrive Peterborough 12.20 p.m. and leaves Peterborough 1 p.m. to arrive Toronto 2.20 p.m. The car, an 89-psgr Dayliner, of stainless steel construction, is built by the Budd Company, of Philadelphia, the builder of the 173 new passenger cars which C.P.R. is now receiving to completely re-equip its transcontinental passenger trains. The car's equipment includes two General Motors 275 h.p. Diesel engines, automatic transmis-

RDC

sion and Budd disc brakes; cars of this type have been described fully in preceding issues of this journal. Similar cars provide fast C.P.R. service between Toronto and Detroit.

An experimental test run between Toronto and Peterborough was made August 11, with C.P.R. officials making the trip including D. S. Thomson, Montreal, Vice President, Operation and Maintenance; G. E. Mayne, Toronto, General Manager, Eastern Region; J. W. Stewart, Superintendent, Trenton Division, Toronto; D. J. Higman, Assistant Superintendent; P. J. Johnson, Assistant Superintendent, Motive Power, Toronto; J. B. Macpherson, Supervisor of Transportation, Toronto; Ray Dow, Road Foreman of Engines, Toronto; N. M. Kelly, District Engineer, Toronto; J. A. Chisholm, General Inspector of Diesel Equipment, Toronto; R. I. Becksted, Signal Engineer, Toronto; William Robson, District Passenger Agent, Toronto; Herb Pearce, Agent, Peterborough; E. J. Heard, City Passenger Agent, Peter-

borough, and S. McMahon, General Manager, Canadian Pacific Express, Toronto.

CANADIAN TRANSPORTATION, OCTOBER, 1954

Canadian Transportation
October 1954

C.P.R. Havelock-Nephton Branch Line

Contracts have been let and construction started on the \$1,500,000 Canadian Pacific Ry. branch line north from Havelock to Nephton, Ont., to serve the expanding operations of the American Nepheline, Ltd., mine at Nephton, it was announced in Toronto May 12 by the vice-president of the railway. Plans for the construction of this line were dealt with in our March issue, pg. 120, and May issue, pg. 259.

Contracts for the line have gone to Robindale Quarries, Ltd., Picton, and to Quemont Construction, Inc., Montreal. Robindale Quarries will build from Havelock north for $9\frac{1}{2}$ miles, including a 1,500 foot siding nine miles north of Havelock. Quemont Construction, Inc., will build the remaining seven miles, starting at the mine site. Work is expected to be completed on the whole line by April, 1955.

Construction of the line will require the excavation of approximately 150,000 cubic yards of earth and 173,000 cubic yards of rock. Some 44,000 cubic yards of ballast will be required, and more than 3,500 tons of rail, tie plates, spikes, bolts, and rail anchors. In addition a communication telephone line will be built to parallel the line for its service, linking Nephton with Havelock. There will be no large bridge structures.

Railway survey parties started checking the location of the new branch last October and the final survey is in progress at time of writing.

Canadian Transportation
JUNE 1954

C.P.R. Havelock- Nephton Line

The Canadian Pacific Ry. new branch line from Havelock, Ont., on the Peterborough Subdivision, to Nephton, 16.6 miles, was completed in December and placed in operation in the latter part of that month.

Construction was carried out under the general supervision of G. W. Miller, Engineer, Maintenance of Way, Eastern Region, C.P.R., with G. E. Brownlee, Locating Engineer, Havelock, in direct charge. There were two resident engineers, R. Davies, on the south section, and R. Fraser on the north section. Jack Morrish, Assistant Engineer, was in charge of land purchases and surveys. There were no bridges of consequence required. Total cost of the undertaking was about \$1,500,000.

CANADIAN TRANSPORTATION, JANUARY, 1955

C.P.R. Havelock-Nephton Line

The Canadian Pacific Ry. branch line to connect Havelock, Ont., mile 0.5, Peterborough Subdivision, with Nephton, site of the American Nepheline Co., Ltd., mine, 18.6 miles, which was under construction during the summer and autumn, was completed, and, following inspection and approval by the Board of Transport

to be laid at the north end of the line. Also, ballasting remains to be completed at the north end. Board inspection of the line took place December 29, and 86 tons of mine product was handled to Havelock in two covered hopper cars on that date. The contractors on construction were Roblindale Quarries, Ltd., Pic-



The C.P.R. Special Train at the Mine

Commissioners for Canada, was placed in operation in the latter part of December. The track is laid with 100 lb. steel on no. 2 treated ties, hardwood on curves and softwood on tangents, tie-plated. Maximum curvature is five degrees. There are sidings at mile 3 and mile 8.5. At time of writing, Dec. 23, a wye track remains

ton, Ont., on the southern 9.7 miles, and Quemont Construction, Inc., Montreal, on the north portion. The contracts included grading, clearing, grubbing, culverts, fencing, and road crossings, and Roblindale Quarries also crushed and supplied ballast. Tracklaying and ballasting were done by C.P.R. forces.

Winter conditions forced cessation of ballasting, and north of mile 5 a slow order is maintained on the operation of all trains. The ballast required for the completion of ballasting in the spring is stockpiled at mile 0.25.

On the southerly 3.5 miles of the line, the material encountered was hard clay with boulder intrusions, but no heavy cuts or fills were involved. From mile 3.5 to mile 4 a deep limestone cut was necessary, with the material taken out employed in partially building up a high embankment between mile 4 and mile 4.5; the balance of the material required for this large fill was borrowed from east of the line at mile 0.25. Unsuitable swamp material was excavated at five points between miles 4.5 and mile 7, and the excavations were filled with a suitable material to provide a stable roadbed. A steep side hill cut between mile 5.6 and 5.9 presented difficulties, due to large boulders strongly embedded in clay, and several springs were encountered when the cut was opened. Limestone from a large rock cut between miles 8.7 and 9.1 was used in making an embankment between miles 9.5 and 9.75; also used was earth fill from a cut between miles 9.2 and 9.4.

While in the reconnaissance survey the possibility of taking the line around the west end of Long Lake was considered, it was found, after close study and the taking of soundings, that a crossing could be made which would shorten the line by about a mile, and the line was, therefore, carried across the lake. The lake depth was 38 ft. to solid rock, and a rock fill of 50,000 cu. yd. was required, this material having been obtained from rock cuts just north and south of the lake. From mile 11.8 to the mine the line traverses a wilderness of rock and swamp, home of beavers, muskrats and deer, with the rock a porphyry type granite. Underfill blasting and blasting by toe



A Section of Track on the C.P.R. New Branch Line Between Havelock and Nephton, Ont.

shooting methods were used to consolidate rock fill over swamps and across Long Lake, with over 500 cases of dynamite used. At mile 14.9 a sinkhole required 798 cu. yd. of rock to advance the line 21 ft.

All told, 200 acres of land were acquired for the line, of which 130 acres were cleared. Earth moved was 275,000 cu. yd. and rock 173,000 cu. yd.; culvert pipe installed totalled 3,771 ft.; there were 70 ft. of cattle pass installed and 38 ft. of multi-plate culvert at Long Lake, and 17 miles of fence was erected. Ballast crushed totalled 40,000 cu. yd.; 100 lb. rail laid totalled 3,168 tons, and 824 tons of rail fastenings and 53,140 creosoted ties were used. Beaver dams to the number of 24 had to be destroyed. The ruling grade southbound (direction of loaded trains) is 1.6% between miles 4.5 and 3.5, while the ruling grade northbound, from mile 5.2 to mile 5.6, is 2%.

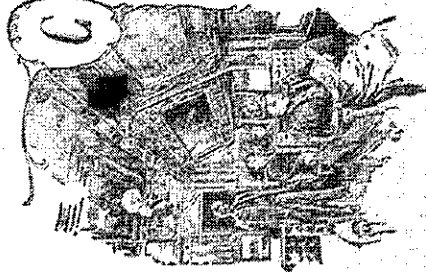
The method of laying rail employed

was the most advanced which the C.P.R. has used to date. With the operation fully mechanized, the use of power tools enabled the work to be done with 37 men in place of about 100 formerly required for such a project. Even the old track gauge was dispensed with, with the use of bridle bars and "Trakgagers", both of which were introduced on this line. The industrial crane hoist which was used not only laid the rail, but transported the rail and fastenings.

Soon after the line was ready for operation, the C.P.R. operated a special train from Toronto to the mine at Nepton, with the party including N. R. Crump, C.P.R. Vice President, and other company officers and officials, and mine officials.

The C.P.R. engineering officials in charge of the line's construction were specified in the January issue, pg. 26.

ACROSS A CONTINENT.

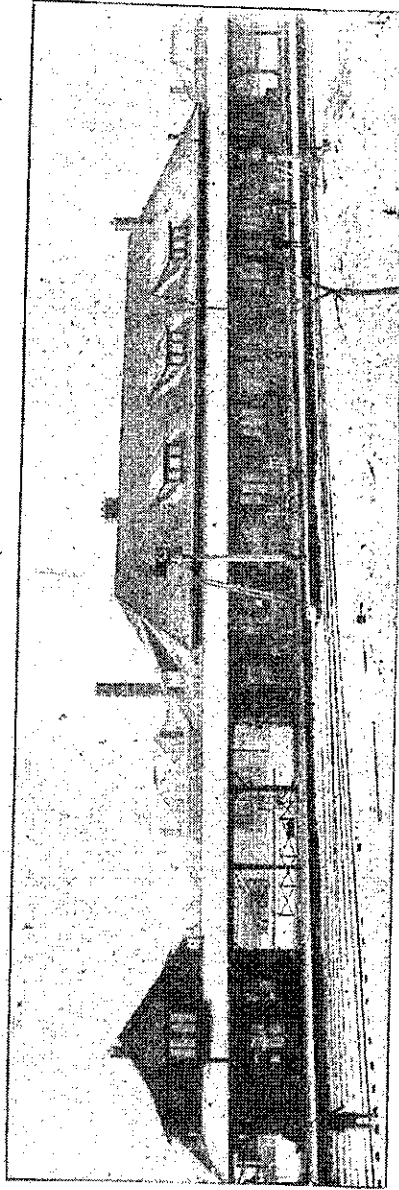


CANADIANS are proud of the Canadian Pacific Railway. There may have been differences in the past about its construction, about its route, about its cost, but there are no differences to-day among Canadian people about its great benefit to the country or about the tremendous influence it has had in developing the resources of the Dominion. Many of the incidents in the Canadian Parliament that occurred in connection with the launching of the undertaking will be fresh in the minds of numbers who read these lines and it is not our intention to review them here.

It wrecked one Government, part in bringing about the downfall of another and it was commonly said it would yet be the downfall of many another Administration before it was completed. These latter proved to be poor prophets but it is not to be wondered at if there was great legislation over such a stupendous work for so young a country. In this article, however, we will pass by the preliminaries incident to such a great project the debates in Parliament, the different offers of money and land made by Parliament and referred by Parliament and referred, the indecision as to whether the work should be done by the Government itself or by private enterprise aided by the Government and come down to the 17th of February, 1881, when the Canadian Pacific Railway Act received the Royal Assent and the Company its charter. The matter had been before Parliament then for ten years and during that time portions of the work had been undertaken by the McKenzie Administration when it had been found impossible to get the work done by private enterprise for the grants that the Government was willing to give. The object was to connect the Atlantic and the Pacific oceans by a railway to be made entirely on Canadian soil. This meant the construction of at least 2,500 miles of new line and the conditions of the contract were as follows. The Government were to complete and hand over to the Company the parts of the road then under construction, amounting in all to 714 miles and representing a cost of about \$10,000,000.

the hundred hummers of the track layers close at their heels. In advance of the track laying party were two bridge gangs, one working by night, the other by day. Where not a stick of timber nor any preparation for work could be seen one day, the next day would show two or three spans of a nicely finished bridge; and twenty-four hours afterwards the rails would be laid and trains working regularly over it. Then came the track-laying gang. The most attractive and lively party on any railroad building. There were 600 men and 35 teams in this gang, moving along slowly but with admirable precision every thing went like clockwork, each man in his place knowing exactly his work and doing it at the right time and in the right way. They move along and where an hour before there was nothing but an upturned sod, two ditches and a low embankment there is now a finished working railway. Each day from twenty to twenty-five cars of rails and from forty to fifty cars of ties and other material were laid by this busy track-laying gang.

Owing to floods in the spring of 1882 the work did not proceed quite so rapidly as it had before but after June of that year it was pushed on with great vigor and by the end of the season 349 miles of railway had been finished. In 1883, 376 miles were completed and this included the gradual ascent of the Rocky Mountains to within four miles of the summit of the pass. The total advance for the three years had been 962 miles. The greatest length of mileage laid in one month was 82 miles in July 1883 and the greatest length laid in one day



C. P. R. STATION, SMITH'S FALLS.

6:35 miles on July 28th in that same year. "Engineering" gave the following description of that day's work at the time: "There were 27 men to handle the iron, that is 12 to unload it from the cars and 12 more to reload it on the trailers. It took the same number to lay it down in the track. The total number of rails laid that day was 21,250 or 664 tons. Five men on each side of the front car hauled down 1,440 rails, 362 tons each gang, whilst the two distributors of angle plates, and d bolts, and adjusters of the rails handled 21,200 rails, 1210 plates and 84,800 bolts. These were followed by 15 bolters who put in on an average 5,650 bolts each, then 328 spikers drove

bears his name in honor of his having been the first man known to have crossed this range. Through it the railway came quickly upon the heels of its discoverer. Even to those who had triumphed over the obstacles of the Kicking Horse Pass, the ascent and descent of the Selkirk presented problems that taxed the skill and courage of the engineers. The traveller, who in his luxurious coach enjoys some of the most splendid mountain scenery in the world, is also struck with the daring and the ingenuity of the men who devised and executed a railway in such places.

While the track-layers from the east were steadily making their way through the Rogers Pass, those from the west were making good progress across the Gold Range; and as the autumn advanced it became an interesting question when and where the two parties would meet. When the first train that was destined to pass from the St. Lawrence to the Pacific coast left Montreal, it is said there were several miles of track to be laid in the far west. Steadily westward moved the train, gradually closer together came the two gangs of workmen until on the 5th of November, 1885, while the train was in the Eagle Pass, the two parties came face to face and the Canadian Pacific Railway with the exception of one rail was an accomplished fact. The Northern Pacific Railway celebrated the driving of their last spike by having a gold one made and giving an excursion that cost them about \$200,000, but there was no fuss or ostentation about the last spike of the C. P. R. It was driven by Sir Donald Smith, now Lord Strathcona, in the presence of not more than a dozen persons besides the workmen. "The last spike," Mr. Van Horne had long before announced, "will be just as good an iron spike as any on the road and those who want to see it driven will have to pay their fare. There was no banquet, no speech making in the depths of that British Columbia forest; and after truly laid it is said the whole party went fishing. But the telegraph—for the wire had kept pace with the rails—dashed the news around the world that the Canadian Pacific Railway was an accomplished fact. The contract stipulated for the completion of the line by May 31st, 1891, the last rail was laid on Nov. 7th, 1885, and a regular through train service commenced on June 28th, 1886, or five years in advance of the time.

RAILWAYS OF THE WORLD.

liament, the different offers of money and land made by Parliament and rejected, the inclusion as to whether the work should be done by the Government itself or by private enterprise aided by the Government, and come down to the 14th of February, 1881, when the Canadian Pacific Railway Act received the Royal Assent, and the Company its charter. The matter had been before Parliament then for ten years and during that time portions of the work had been undertaken by the McKenzie Administration when it had been found impossible to get the work done by private enterprise for the grants that the Government was willing to give. The object was to connect the Atlantic and the Pacific Oceans by a railway to be made entirely on Canadian soil. This meant the construction of at least 2,500 miles of new line and the conditions of the contract were as follows. The Government were to complete and hand over to the Company the parts of the road they under construction, amounting in all to 715 miles and representing an outlay of about \$9,000,000. The through line was to be completed by the Company before May, 1891. The subsidy as mentioned in another article was to be \$25,000,000 and 25,000,000 acres of land. Materials used by the Company in the first construction of the road were to be admitted free of charge. The Company's lands, if unsold, were to be exempt from taxes for twenty years, the right of way over-lands owned by the Government was to be free. The rates charged by the Company were to be exempt from Government interference until the shareholders were in receipt of ten per cent. on their stock, and for twenty years no competitive line was to be allowed to cross the American boundary in Manitoba or the North-West Territories. The first of the two latter conditions has been nullified during the past year by the present Government under an agreement with the Company, and if we mistake not Premier Greenway is figuring on knocking out the other. As an evidence of the faith and the courage of the Company the members of it subscribed a million sterling, \$5,000,000, themselves before appealing to the public for aid and everyone knows today how that faith and courage have been rewarded.

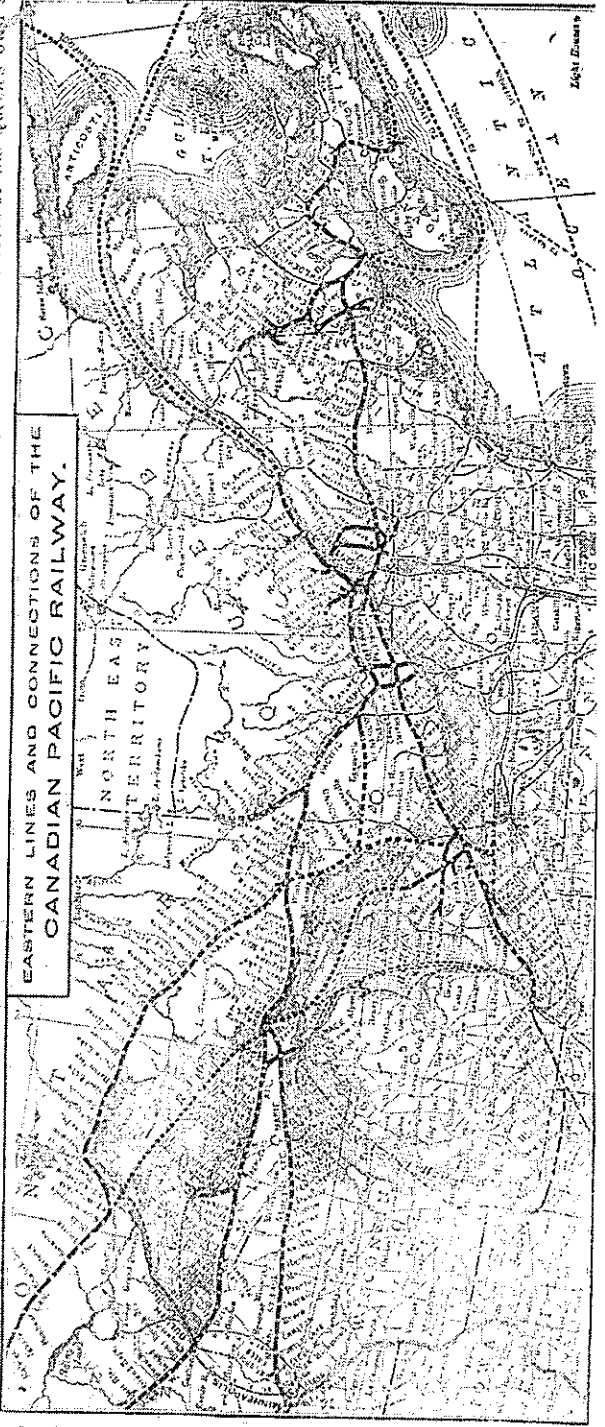


OF P. R. STATION, SMITH'S FALLS.

6-8 miles on July 28th in that same year. "Engineering" gave the following description of that day's work at the time: "There were 21 men to handle the iron, that is 12 to unload it from the cars and 12 men to reload it on the trolleys. It took the same number to lay it down in the track. The total number of rails laid that day was 3120 or 640 tons, 302 tons each gang, whilst the two distributions of angle-plates, and bolts, and adjusters of the rails handled 2120 rails, 4240 plates and 8480 bolts. These were followed by 15 bolters who put in on an average 505 bolts each, then 32 spikers drove 6300 spikes. There were 16000 ties unloaded from the trains and reloaded onto wagons by 32 men, and 33 teams hauled them forward on to the track, averaging 17 loads of 30 sleepers to each team. On the track 8 men unloaded and distributed them and four others spoked them."

But wonderful as was the completion of such a length of mileage in three seasons, the work which had been going on near Lake Superior was no less remarkable. Some of the most difficult and expensive of the whole work had to be done along the north shore of Lake Superior. The amount of rock-cutting was heavy and here as in the Rocky Mountains it was found desirable to establish dynamite factories on the spot.

EASTERN LINES AND CONNECTIONS OF THE CANADIAN PACIFIC RAILWAY.



February 24 1898 Smith Falls

the road and those who want to see it driven will have to pay their fare. There was no banquet, no speech-making in the depths of that British Columbia forest; and after seeing the last rail well and truly laid it is said the whole party went fishing. But the telegraph—for the wire had kept pace with the rails—flushed the news around the world that the Canadian Pacific Railway was an accomplished fact. The contract stipulated for the completion of the line by May 31st, 1891, the last rail was laid on Nov. 7th, 1885, and a regular through train service commenced on June 28th, 1886, or five years in advance of the time.

RAILWAYS OF THE WORLD.

It is said that more than 90 per cent. of railway passengers in England travel third-class. They contribute about 83 per cent. of the receipts.

It is a peculiarity of Russian railways that their stations are generally two miles or more distant from the towns or villages they serve. This is said to be on account of the danger of fire, the houses in small places generally being thatched with straw.

A new royal train for the Queen has been constructed at Swindon by the Great Western Railway Company. It consists of six saloon carriages, and mahogany is the only wood used. The doors of the Queen's own saloon are so arranged that two attendants will be able to enter or leave with her majesty, one on either side. The floor of this carriage is on a level with the platforms at Paddington and Windsor, so that the Queen will not in future require to use steps. The new train was used by the Queen for the first time when Her Majesty went to London from Windsor on Monday, June 21.

Africa is progressing in the matter of railway building. The Cape Railway, reaching from Cape Town to Johannesburg, and beyond, has, with its branch

THE ONTARIO

AND

QUEBEC DIVISION.

THE development of the railway system in this part of Canada was for many years exceedingly slow. It is only since the C. P. R. Co., with their magnificent enterprise and mighty push, took hold, that railway facilities have rapidly multiplied. The first railway to this place was from Brockville, the terminus being Perth. In the sixties the only way of getting to Ottawa was by Brockville and Prescott. Passes were frequent and the journey was always tedious. A citizen who went to Brockville occasionally these times tells us that frequently he was the only passenger. The Brockville and Ottawa Railway, as the road was called, was extended from time to time until it reached Sand Point, when travellers for Pembroke, then a flourishing village, had to take the stage on up the Ottawa to Gould's Wharf. Then they boarded wagons and rode fourteen miles over a rough and hilly road to Cobden. A little flat bottomed steamer—the Jason Gould—would after the father of J. H. Gould, proprietor of Rideau Ferry, was waiting and took them, some twenty-two miles, to the end of Mud Lake. The last stage of two miles was usually made in the barest husk.

The next extension, if we remember right, was from Carleton Place to Ottawa, giving us direct communication with the Capital. The road was also extended by degrees from Sand Point to Pembroke, and for some years the latter town was the *Cherry Tree*, or *Swapping off place*, the country beyond being unexplored, or feared only by the lumbermen or the hunter. When the C. P. R. and the then existing government, the late Sir John A. Macdonald being Premier, arranged for the construction of the road to the Pacific ocean, it became part of the great trans-continental line.

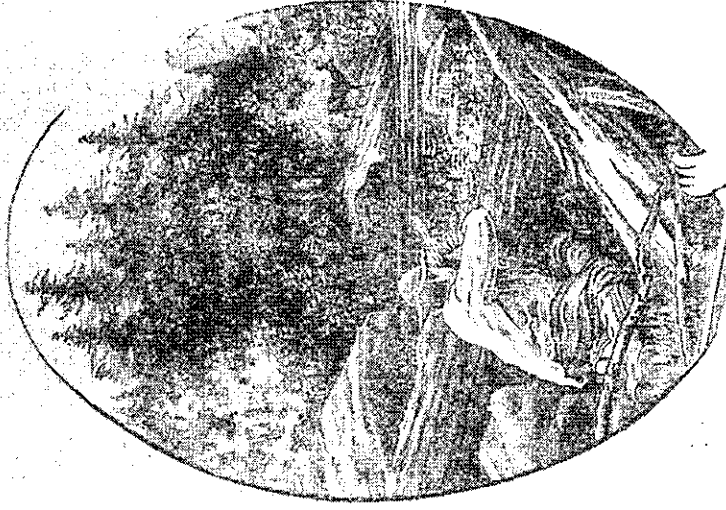
Early in the eighties two rival companies, the Ontario and Quebec Railway Company and the Toronto and Ottawa Company obtained charters to build a line from Toronto to Smith's Falls and eastward. Both commenced operations and graded a portion of their projected roads, the lines at some places being only a few feet apart. Both suspended operations when the C. P. R. took hold of the Ontario and Quebec road and finished it from Toronto to Smith's Falls. It was opened in the winter of 1883-4, and though it gave us direct communication with Toronto, it brought local disadvantages. A Y was made two miles out the Franktown road and for two or three

years passengers for the east or west had to go out there to catch their trains. In 1886 the C. P. R. proposed to build an air line from this point to Mont-real and asked the various municipalities on the route to bonus it. The citizens of Smith's Falls

THE RIDEAU RECORD.

west have to encounter among the mountains—an onrushing terrific force, something which cannot be checked. It is necessary to resort to subterfuge to elude it, to baffle from it, or to make good by artificial means the path that the railway has struck out for itself.

Under favorable circumstances, the snow parts readily before the onslaught of the plow. At times, however, under the battery to which it is subjected, it only becomes more rigidly compressed, more solid, more impenetrable at each renewed



HUNTING ON THE LINE OF THE C. P. R.

charge, a solid, unbudging block of ice. The engine may go back a mile, the throttle fully open, it may rush upon the barrier at a speed of 40 or 50 miles an hour, but when the snow dust has cleared sufficiently for the engineers to see around them, it may be that they have only advanced a yard, possibly the engine fires have been extinguished, not improbably the engine may have been thrown off the line.

The one course which then remains is to call in the assistance of a small army of men that a way may be forced through the snow with pick and shovel, and while these operations are progressing, the passenger train has to be kept constantly on the move, lest in a few hours it becomes impossible of

With a rotary plow the engineers do not run the same risk as they do on the plow of the old-fashioned type, with which it is often necessary to charge the snowbank at top speed, not merely cutting through but burrowing under the snow. But even the rotary plow is liable to be disabled by encountering the frozen carcass of a horse or steer in a snowbank, or the debris of fallen telegraph poles, or among the mountains, the trunks of gigantic trees. It is nominally the duty of the section men to look out for this, and, if possible, to warn the engine driver, and to telegraph for a gang of workmen with pick and shovel to clear the track in the old-fashioned way. But it is needless to say that the most vigilant section men cannot always be relied upon in such a matter as this.

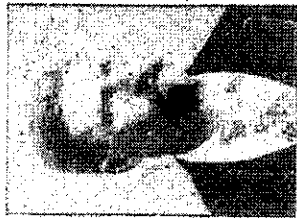
TURKEY FAIR—Its Origin and History.

SMITH'S FALLS is the great turkey market centre, not only of the Dominion, but of the world. You go to a New York restaurant in summer and are charged 50c. for turkey. If you suggest this as being high you are told that it is Smith's Falls turkey, and of course that settles it. The poultry taken in here stands highest in any market. The reason is that producers have had a long experience that many know just exactly what is required. Last December, in spite of the ice, perils, exacted by the American Government, and all competition, our fair broke the record with over one hundred tons taken in the two days. When cold storage and quicker transport come about, as they are bound to do before next year, the market will naturally shift to Great Britain and our farmers will get better prices. The history of our fair has almost passed into tradition and we purpose right here to give a brief account of its inception. In the early sixties Mr. W. J. Wright, of Clay Potts, or some such name, N.Y., made an annual trip to this locality, buying up turkeys and driving them on foot to Brockville, where they were ferried over the river and driven to his home. Mr. Wright was a genial gentleman and loved to drop into the newspaper office for a chat while his turkeys rested in the Russell House yard. In 1865, during one of these chats, our townsman, Mr. W. M. Keith, who had two years before started the publication of a weekly newspaper, suggested that it would be easier to cordially concurred in this but said he had to far-run them at his own place, as they were no use as he got them from the farmers. The long and the short of it was that Mr. Wright and the editor entered into an arrangement by which the editor was to publish the rules for fattening and killing and to appoint a market day when Mr. Wright was to be present to buy. The day came round and about



Smith Falls
February 24 1898

tion with the latter, and brought local disadvantages. A Y was made two miles out the Franktown road for two or three years passengers for the east or west had to go out there to catch their trains. In 1886 the C. P. R. proposed to build an air line from this point to Montreal and asked the various municipalities on the route to bonus it. The citizens of Smith's Falls readily recognized the advantages of such a road and cheerfully voted a bonus of \$25,000, on condition of a round house and other additions stipulated in the agreement then made. In August, 1887, the road was opened, and Mr. R. A. Bennett, the present in a defatigable and courteous station agent, was brought from Montreal and installed in the position he still holds, Mr. Prond, who had been agent at the Y, being made yard-master.



M. L. CANBY

Has thirteen years to his credit as an engineer. He started in at Brackville on the C. P. R. in 1882, and thus has been in the service for sixteen years. He has been here since the opening of the O. & Q.

Having no official data to go by, and trusting only to memory, we may be wrong in some of our dates, but such in brief is an outline of the railway development which has made Smith's Falls such an important railway centre. Here the teas and other goods from the Orient are brought, sorted out by a large staff of employees and transhipped to their destination. Both Canadian and United States Customs' Departments have offices on the ground to look after the regulations of both countries and facilitate transshipment. Mr. A. E. Mills represents the Canadian Government and Mr. M. E. Crane the American.



J. A. TANGUAY

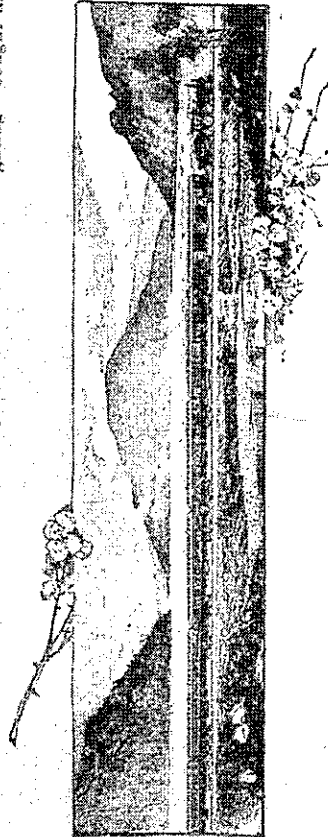
Began railroading on the North Shore at Hochelaga in 1884. He has been seven years an engineer, and came here from Ottawa in

charge, a solid, unbounding block of ice. The engine may go back a mile, the throttle flung be thrown open, it may rush upon the barrier at a speed of 40 or 50 miles an hour, but when the snow dust has cleared sufficiently for the engineers to see around them, it may be that they have only advanced a yard, possibly the engine fires have been extinguished, not improbably the engine may have been thrown off the line.

The one course which then remains is to call in the assistance of a small army of men that a way may be forced through the snow with pick and shovel, and while these operations are progressing, the passenger train has to be kept constantly on the move, for a few hours it becomes incapable of movement at all.

At such a time it is no unusual thing to see several hundred men at work on a snow drift. Perhaps eight or a dozen platforms are cut in the snow, and thus what is removed from the line is passed upward from stage to stage, climbing the steep walls in tiny shovelfuls, until it finally reaches the open waste, thirty or forty feet above the heads of the workers on the ground level.

The thing that has simplified the task of snow fighting



SALMON ARM, STUBSWAY LAKE.

more than anything else, especially in the prairie country, is the rotary plow. The appearance of the "rotary," as it is called by railroad men, reminds one of nothing so much as the screw propeller of a steamship. It is a huge rosette of flanges, about twelve feet in diameter, that bores its way into snow banks, clearing just enough space to enable the waiting train to pass through. As the winter goes on the snow is piled higher and higher on both sides, until we have the perpendicular embankment through which the train often passes for miles without a break.

As the wheel revolves the snow chips pass back through the intervals between the shovels, fall into a large-sized fan elevator, and are hurled forth on this or that side of the line, according to the quarter from which the wind is blowing. In a graceful arch of silver dust, the snow is flung into the air to a height of 60 or 70 feet, descending like a fountain over the half-buried posts of the telegraph. From the smoke stack a volume of fire is rising. There is an uproar like the sound of artillery galloping over a cobble street. As a spectacular



JAMES LEWIS

Has been running on this division since 1890, when he was made an engineer. He first worked for the

conflictly concurred in this but said he had to follow them at his own place, as they were no use as he got them from the farmers. The long and the short of it was that Mr. Wright and the editor entered into an arrangement by which the editor was to publish the rules for fattening and killing and to appoint a market day when Mr. Wright was to be present to buy. The day came round and about ten tons of very good stuff were brought in and Mr. Wright bought it all at from 10 to 11c. per lb. He was delighted with the quality. For 10 years the fair went on as it started, Mr. Wright being the only purchaser and he bought all offered. The success of the fair attracted other buyers and Mr. Wright was agitated out or did not deem it to his interest to attend. Year by year ever since it has held the proud pre-eminence of being the greatest poultry fair in the world.



T. MORIARTY

Came to this country from county Kerry, Ireland. He began bring on the C. P. R. in 1885, and in 1890 he was made an engineer. He has run on all the divisions of the C. P. R. from Montreal to Rat Port and Mr. Wright was agitated out or did not deem it to his interest to attend. Year by year ever since it has held the proud pre-eminence of being the greatest poultry fair in the world.

Just a Business Call.

ONE of the boys had told the man in charge of the cattle yards at the Abilene that the duffer in charge of the freight outfit over on the hill had referred to his personal appearance in the tails of three or four refractory steers and announced that he would go over and make the freighter eat grass or fill him full of lead. He didn't go at once, however. He waited until he got real mud and until he could clean up his grins and sharpen the point of his bowie knife and tell about the number of men he had killed down in Texas. After delaying the matter as long as he could the cattlemen announced that he was ready. He buckled on his gun and shoved a knife down his boot leg. He looked ugly. He

wasn't the slightest doubt that he thirsted for gore and hankered after grave yards. There was only

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wind storms, etc. (See table 4 on page 69).
A statement (see copy of such report covering
Havelock section, Nov. 1, 1900, in table 5 on
page 71) for the 24 hours ended midnight is
made up & sent the general superintendent by
first mail showing each freight train run in the
direction of balance of tonnage—between
what stations, number of engine, class of rat-
ing, schedule load at that class of rating, tare,
contents, actual & equivalent tonnage & par-
ticulars of any doubling or assisting. The
percentage of total equivalent tonnage taken
over the ruling grade on each section to total
of loads which, according to schedule & class
of rating, should have been taken over that
ruling grade by the power on that day is cal-
culated, & the percentage performance on the
different sections tabulated for comparison.
If an engine doubles or is assisted over the
ruling grade the superintendent is debited
with what the engine can take over the next
heaviest grade.

The foregoing paper was read by Mr. Tait
before a recent meeting of the New York
Railroad Club, at which 1st Vice-President
W. W. Wheatly presided. The reading of
the paper was followed by a very important
discussion.

The CHAIRMAN said:—There is probably no
subject in connection with freight transporta-
tion on our railways which in recent years has
excited more discussion & interest than the
matter of rating freight engines according
to tonnage. This is a matter which interests
not only the transportation officer, but also
the head of the locomotive department. I
think we should have a discussion this even-
ing without it being necessary for me to call
upon members by name. As no one has been
selected to open the discussion, the field is
free for any one who chooses to speak first.

A. E. MITCHELL—I notice that the author
has mentioned the old method without stating
what it was. I would be glad if he would tell
us what his old method was when he adopted
the new.

The CHAIRMAN—I have no doubt that there
will be a great many questions asked Mr.

Tait to-night, & I suggest that he make a
note of them as they are propounded & he
will be given an opportunity later to reply to
them all. Will some one open the discussion?
We would be glad to hear from Mr. Daly for
the Lackawanna road.

J. M. DALY—I came here more to learn
about tonnage than to talk about it. But
there are one or two points I would like more
information on as regards this chart. It
strikes me that the chart provides for a reduc-
tion on the ratio of 13 to 10 of loads against
empties regardless of the number of empties
you have on the train. In other words, if you
are pulling up a grade 90 ft. to the mile, it is
more easy to handle the full rating of empties
than it would be if you are undertaking to
pull them up a grade of 45 ft. by reason of
the length of train & gradient resistance. So
that it struck me that the longer the train or
the greater the tonnage assigned a train, the
greater should be reduction for empties
hauled. Another question that I wished to
ask is what provision is made for busy tracks?
For instance, on a portion of our line we have
20 first-class trains in each direction each 24
hours, & from 5 to 7 fast freights, with a
grade of about 45 ft. to the mile for 24 miles.
Now, if we confined the movement of trains to
7 miles an hour it is going to utilize that
track with freight trains the greater portion
of the time. Another feature that struck me
was in the testing arrangements. If on a
favorable day, with an engine that the master
mechanic knew was good, & a choice engi-
neer, good fuel, favorable conditions, he
hauled 1,000 tons, what reduction from that
was arbitrarily made in rating the engines to
insure the general run of engines hauling ton-
nage up the same grade during the busy sea-
son, when the power is more or less overtaxed
& run down, & when new enginesmen & fire-
men are pressed into service that are not as
competent as the average run of enginesmen
& firemen that are utilized in testing? It ap-
pears to me there is as much danger in under-
taking to rate your engines too high & as
much money lost in overtime as in underesti-
mating them a little, especially on busy pieces
of track where you have a heavy passenger
service & a heavy high-class freight service.

F. F. GAINES—As I understand the matter,
this sliding scale is made on a basis of either
light & loaded cars or partially loaded cars.
Now, there is another case that may come up,
& I would like to know what provision would
be made for it. For instance, I have here a
record of two different trains, both handled
by the same engine; one was made up of
100,000 lbs. capacity cars, the other was of
old-style 60,000 lbs. capacity cars. The tare
in the 100,000 lbs. car train was 676 tons; the
net tonnage was 1,824 & the gross tonnage
2,500. With the 60,000 lbs. cars the tare was
619; the net 1,381, & the gross tonnage 2,000.
By comparing those figures, the net tonnage
of the 100,000 lbs. cars is 24.2% greater than
the 60,000 lbs. cars. The gross tonnage is
20% greater in those 100,000 lbs. cars than in
the 60,000 lbs. What kind of provision would
be made for cases of that kind? We all have
more classes of cars than one on our roads.
It takes more power to haul one class of cars
than it does another, & I wish to know if this
scale provides for any feature of this kind.

The CHAIRMAN—I think it would perhaps
facilitate the discussion if Mr. Tait were per-
mitted now to reply to the questions that have
been asked & the points that have been raised
& also to elaborate slightly upon the paper.

Mr. TAIT—This paper is, as you will have
seen, only a brief description of a method of
rating & loading engines which we have had
in effect since Oct. 1. Prior to that date we
had about the same system of rating engines
for the different weather & other conditions
as we have now, but we were loading them
then on what I have called the "actual" ton-
nage basis; that is, the actual weight only

was counted, whether a car was loaded with only one ton or to its full capacity. The only exception was in the case of an entirely empty car, to the weight of which an arbitrary addition was made. When we said that under the old system an engine was capable of taking 900 tons over a grade, that meant 900 tons in loaded cars, whether loaded light or to their full capacity. This, I think, answers Mr. Mitchell's inquiry.

The comparison between our old & our new system might be summed up in a question. When you say that an engine will take 900 tons over a certain grade, what kind of tons do you mean? Do you mean 2 to 1 tons; that is, 2 tons of contents to 1 of tare? Or do you mean 3 to 1 or 1 to 1? It makes a great difference. For example, let us take a

train of dressed beef. We will say that the load for the engine is 900 tons. The cars will average, say, 15 tons, & the beef & ice, say 15 tons, or 1 to 1. Each car with contents will weigh 30 tons, & 30 cars will make the 900 tons. Now convert the beef into grain, in cars of 30 tons capacity. We still have the car weighing, say, 15 tons, but we have 30 tons of a load in each car, or 2 to 1. Each car with contents will weigh 45 tons, & we will get our 900 tons in 20 cars, instead of in 30 cars. Which will pull the easier? The beef or the grain, each weighing 900 tons? There can be no question about that. Any engine man will tell you he would prefer to pull the grain (the 2 to 1 train). What does this mean? It means that if the engine can take 900 tons in the beef train (1 to 1), it can

by reason of the smaller percentage of tare take a greater tonnage in the grain train (2 to 1). Our method is devised to take care of this; to profit by the large capacity car fully or well loaded (small percentage of tare) & on the other hand, in the case of a train having a high percentage of tare, to prevent the overloading of engines.

The first proposition I advance is this, that the haulage capacity of engines should be based on a uniform proportion of tare weight to gross weight behind the tender. In order that the relative haulage capacity of the different classes of engines may be determined on any given grade the test should be made with the same kind of a train. If not the identical cars, the percentage of tare should be the same. Otherwise the comparison is

TABLE 1.—HAVELOCK SECTION.

HAULAGE CAPACITY (IN TONS) OF LOCOMOTIVES ON FREIGHT TRAINS THE TARE WEIGHT OF WHICH IS 33 1/3% OF THE GROSS WEIGHT BEHIND THE TENDER.

FROM	EAST BOUND.																% ENG. CAP.
	153	115	140	120	115	110	105	100	95	90	85	80	70	65	60	55	
Havelock	1008	1805	1800	1513	1470	1415	1350	1286	1221	1157	1092	1028	900	836	772	707	613
Central Ontario Jct.	1211	1176	1135	973	932	892	851	811	770	730	689	649	568	527	487	446	406
Tweed	1063	1008	973	834	799	765	730	695	660	625	591	556	486	452	417	383	348
Kahadar	1143	1083	1043	896	859	822	784	747	710	672	635	598	523	486	448	411	374
Mountain Grove	1175	1114	1075	922	883	845	806	768	730	691	653	614	538	499	461	422	384
Sharbot Lake	1063	1008	973	834	799	765	730	695	660	625	591	556	486	452	417	383	348
Maberley	1273	1206	1165	998	957	915	874	832	790	749	707	666	582	541	499	458	416
Perth	1405	1331	1285	1102	1050	1010	964	918	872	826	780	734	643	597	551	505	459

WEST BOUND.

Smith's Falls	1633	1517	1491	1280	1227	1174	1120	1067	1014	960	907	854	747	694	640	587	531
Perth	1121	1063	1026	880	843	806	770	733	696	659	623	586	513	476	440	403	367
Bathurst	1131	1074	1037	889	852	815	778	741	704	667	630	593	519	482	445	408	371
Sharbot Lake	1189	1127	1088	932	894	855	816	777	738	699	661	622	544	505	468	431	394
Mountain Grove	2006	1901	1835	1573	1508	1442	1377	1311	1245	1180	1114	1049	918	852	787	721	656
Ardenale	1121	1063	1026	880	843	806	770	733	696	659	623	586	513	476	440	403	367
Kahadar	1640	1534	1501	1286	1233	1179	1125	1072	1019	965	912	858	750	697	643	590	536
Hungerford	1401	1385	1337	1146	1088	1051	1003	955	907	860	812	764	660	621	573	525	478
Tweed	995	943	910	780	748	715	683	650	617	585	553	520	455	422	390	358	325
Ivanhoe	1120	1061	1025	875	835	795	755	715	675	635	595	555	472	438	404	371	337
Central Ontario Jct.	1031	977	944	800	775	741	708	674	640	607	573	539	472	438	404	371	337
	1163	1102	1064	912	874	836	798	760	722	684	646	608	532	494	456	418	380
	1221	1160	1120	960	920	880	840	800	760	720	680	640	560	520	480	440	400

TABLE 2.—INDEX TO HAULAGE CAPACITY AND DESCRIPTION OF LOCOMOTIVES.

TYPE OF LOCOMOTIVE AND INDIVIDUAL NUMBERS.														TOTAL.	
Per Cent. Capacity.	EIGHT WHEEL COUPLED		SIX WHEEL COUPLED			FOUR WHEEL COUPLED				SWITCHERS		Road	Switch		
	CONSOLIDATION		TEN WHEELERS		MOGUL	ATLANTIC	EIGHT WHEELERS		SIX WHEEL						
	Simple	Compound	Simple	Compound	Simple	Compound	Simple		Simple						
153	732 738														
145	739 740	609 731, 741 780.								312/344		111			
140	316 320									336/341, 580 584, 611		5	3		
120	312 315		200 202		194 199.					321/335		8	12		
115	497 498	199/504										22	15		
110			203 208, 212 223		224 227.							43			
105			532		480 492, 533										
					641, 668.										
100	401 406		493 490, 534 510		541 608.							122			
			542 550, 585 602		639 640.										
			609 613, 615 638												
95			435 442, 457 458		562, 561.							50			
			465 479, 551 561												
			563, 565 579, 603 607												
90			456, 459			209/211.						72			
85					M. & A. 24		521 524.								
80							300, 311, 305 400.					73, 101 110, 152 153	18		
70							170 172, 174 360, 371 373, 379 391, 393 394					117 119 (1 Wheel)	24		
65							16, 20 44, 66, 74 87, 90, 93, 95, 97 99, 120 121								
							123 142, 173, 175 176, 220, 234 272, 239								
							271 282, 283 297, 299, 351 353, 355 358								
							361 365, 368, 374 378, 392 525 527, M. & A. 27 30								
							45 53, 62 64, 67 71, 88 89, 91 92, 94 96, 113 115								
							147 148, 177 179, 184, 230 231, 238, 525 527								
							260, 262 267, 269 270 298, 350, 364 367, 369 370								
							508 510, 515 517, 528, 530								
							186 188, 191 193, 240 241, 244 249, 315, 350 511 513								
							520								
55							17, 100, 157, 159 507, 514, 518, M. & A. 11, 10 115								
50							15, 18, 25 26								
							Total Locomotives, 723					674	40		

not fair, as will be readily understood from the beef & grain train illustration. For the same reason, this uniform percentage of tare should be used in testing the resistance of different grades. Schedules of loads for engines should therefore be based on trains having a uniform percentage of tare. This is what we have done. We adopted the 2 to 1 basis because we have a large number of cars which weigh about 15 tons, & have a capacity of 30 tons, or 2 to 1. We have very few larger capacity

cars of our own. Therefore, we cannot look for many, if indeed Any, trains that would have a lower percentage of tare than one-third. The conditions on some other railways may be such that they should adopt, for instance, a 3 to 1 basis. If so, they can make up their schedule of loads & compile their charts on that basis.

The second proposition is, that having determined the haulage capacity of engines with trains having this uniform percentage of tare,

that then there should be some method of determining the comparative rating of an engine, & that engine should be loaded accordingly. This is accomplished by the chart which is compiled on the basis that 30% more power is required to move the same tonnage in empties than in loaded cars loaded 30%. This 30% is a point which I anticipated I would hear about, & in reference to it I have to say that this method of rating & loading engines is in use as yet only on our Eastern

TABLE 3. INDEX TO HAULAGE CAPACITY AND DESCRIPTION OF LOCOMOTIVES.

NUMBER.	%CAPACITY.	CLASS.	NUMBER.	%CAPACITY.	CLASS.	NUMBER.	%CAPACITY.	CLASS.	NUMBER.	%CAPACITY.	CLASS.
M&A 11	50%	8 W.S.	150	50%	8 W.S.	321/335	115%	6 W.S.	508 510	100%	8 W.S.
13/15	50	"	170/172	70	"	336/341	120	"	511 513	55	"
17/18	50	"	173	65	"	342/344	140	"	514	60	"
24	75	Modu.L.N	174	70	"	345	65	8 W.S.	515 517	60	"
25/26	50	"	175 176	65	"	350	65	"	518	60	"
27/30	65	"	177-179	60	"	351 353	65	"	520	55	"
1/8	65	"	181	60	"	356 358	65	"	521 521	55	"
17	50	"	185/188	65	"	359	70	"	525/527	65	"
20/44	65	"	191-193	120	10 W.C	360	70	"	528	60	"
15/53	60	"	194/199	120	10 W.S.	361 365	65	"	530	60	"
62/61	60	"	200/ 02	110	"	366 367	60	"	532	105	10 W.S.
60	65	"	203-208	110	"	368	65	"	533	105	10 W.C
67/71	60	6 W.S.	204 211	90	ATL.C	369 370	60	"	534/510	100	10 W.S.
72	60	"	212-223	110	10 W.S.	371 373	70	"	541	100	10 W.C
73	80	"	224-227	110	10 W.C	374 378	65	"	542 550	100	10 W.S.
71/87	65	8 W.S.	229	65	8 W.S.	379 381	70	"	551/561	65	"
88/89	60	"	230-231	60	"	382	65	"	562	65	10 W.C
90	65	"	234-237	65	"	383 384	70	"	563	65	10 W.S.
91/92	60	"	238	60	"	385 386	80	"	564	65	10 W.C
93	65	"	239	65	"	401 406	100	Con.S	565 570	65	10 W.S.
94	60	"	240 241	55	"	408 414	100	Modu.L.N	580 584	120	6 W.S.
95	65	"	244-249	55	"	415 412	95	10 W.S.	585 602	100	10 W.S.
96	60	"	255-257	60	"	413 455	100	Modu.L.N	603 607	95	"
97, 99	65	"	259	60	"	456	100	10 W.S.	608	100	10 W.C
100	50	"	262-267	60	"	457 458	95	"	609 613	100	10 W.S.
101/110	80	6 W.S.	268-270	60	"	459	90	"	614	120	6 W.S.
117/119	70	4 W.S.	271-282	65	"	460 464	100	Modu.L.N	615/638	100	10 W.S.
120/121	65	8 W.S.	285 297	65	"	465 479	95	10 W.S.	639/610	100	10 W.C
123 142	65	"	298	60	"	480/492	105	10 W.C	644 688	105	"
143 145	60	"	299	65	"	493 496	100	10 W.S.	689 731	115	Con.C
147 148	60	"	300 311	80	"	497 498	115	Con.S	732 738	155	Con.S
150/155	80	6 W.S.	312 315	120	Con.S	509 504	115	Con.C	739 740	115	"
57	50	8 W.S.	316 320	140	"	527	50	8 W.S.	741 746	115	Con.C

NOTE.—

8 W	—	Four driving wheels, coupled	with four-wheel truck.
4 W	—	" " " "	switcher.
6 W	—	Six " " " "	" " " "
Motor	—	" " " "	with two-wheel truck.
10 W	—	" " " "	four " " " "

ATL.—Four driving wheels, coupled with four-wheel truck and one pair idlers under firebox.
CON.—Eight driving wheels, coupled with two-wheel truck.
S — Single expansion or "simple."
C — Double expansion or "compound."

TABLE 4.—RATINGS AND RULES FOR LOADING LOCOMOTIVES IN FREIGHT SERVICE.

Conditions	Ordinary		Bad Rail or Temperature 10° Above to 20° Below Zero		Temperature Colder Than 20° Below Zero	
Class of Rating	Ordinary Freight Trains A	Fast Freight Trains B	Ordinary Freight Trains C	Fast Freight Trains D	Ordinary Freight Trains E	Fast Freight Trains G
Reductions From Schedule Loads	% Nil.	% 10	% 7	% 12	12	15

Such regular trains as may be so designated by Superintendents, and any train with ten or more cars of live stock, provisions and perishables will be rated as "FAST FREIGHT TRAINS." Superintendents may, in special cases other than those provided for herein, authorize a special rating. The loads for engines during snow and wind storms will be determined at time according to conditions. In making deductions for "Temperature" or "Bad Rail" the probable conditions over ruling grade and not at starting point, must be considered. Where tare is not stencilled on cars the following estimated weights will be used:—

Where tire is not stenciled on cars the following estimated weights will be used:			Tons.			Tons.			Tons.		
28	Feet	Box	10	35	Feet Coal	30	Tons	17	Coaches	Wide	48
30	"	Box or Stock	11	35	"	40	"	15	"	Narrow Vestibule	38
33	"	"	13		Empty Oil Tank			15	"	Ordinary Platform	28
34	"	"	14		Derrick and Tool, Etc			20	Colonist		36
35	"	"	16		Flangers			15	Tourist		36
33	"	Palace Horse	14		Large Snow Plow			50		Wide Vestibule	37
50	"	"	19		Small			25		Mail and Smoking	25
35	"	Refrigerators, Pass	20		Caboose			14		Baggage and Smoking	25
35	"	" Frt	18		Official, Long			54		Box Baggage	17
33	"	Ventilator	13		" Short			36		Baggage Long	20
40	"	Furniture	15		Sleepers, Wide Vestibule			50		" Short	20
45	"	"	19		" Narrow			43		Baggage and Express, Long	10
28	"	Flats	8		" Ordinary Platform			40		" Short	10
30	"	"	9		Parlor, Wide Vestibule			54		Mail and Express, Long	30
33	"	"	10		" Narrow			42		" Short	20
35	"	"	12		" Ordinary Platform			40		Baggage, Mail and Express, Long	30
35	"	Coal	10		Dining			15		" Short	20

1,000 to 2,000 pounds-inclusive shall count as one ton, less than 1,000 pounds shall not count.
A Flanger working is to be rated at 100 tons.

The loads for locomotives may be exceeded up to 15 tons, if by doing so another loaded car may be taken. The schedules of loads are for use with prescribed chart for calculating loads for locomotives according to proportion of free to gross weight behind the tender and are based on trains of which the free weight, including van, is 25% of such gross weight.

NOTE.—Figures in italics in hauling capacity schedules are based on the trains passing the stations without stopping.

lines, on which the controlling grades, except in a few instances, are about 1%, & as we desired to avoid complicating the new method at the outset, by having more than one chart, we have as yet only put in use a chart compiled on this 30% basis. I am well aware that the percentage of additional power required to move the same tonnage in empty as in loaded cars, loaded 2 to 1, decreases as the grade increases. The rolling friction does not increase, while the resistance due to gravity does, & therefore, the percentage of additional power required is not constant. We have in mind, & I may say in hand, several charts for use on the different sections according to the ruling grades thereon. I think that when we put these in use, we will have overcome the only difficulties that we have encountered in connection with this system. We have found that 30% is too much on grades heavier than 1% & not enough on easier grades.

Mr. Daly has raised a point as to speed of freight trains on grades. The 7 miles per hour is the speed over summits, & I freely admit that where trains are thick more tonnage can be moved with lighter loads & faster speed than by loading engines to the limit, with resulting long occupation of track, especially on grades. Such conditions are local, & have to be dealt with as you find them. This point, moreover, does not affect the two propositions I have advanced.

As to testing engines, we determined the relative haulage capacity of the different classes of engines, as far as we could, on one grade, using a dynamometer car, not by one, but by a great many tests of each class—not with engines that were all in good condition, with good firemen & good coal, but with engines & men as they came along, & then we took what we thought was a fair average. Having determined the relative haulage capacity of the different classes of locomotives on this one grade we then, by testing one or more classes of engines on the other portion of the line—also with the dynamometer car—were able to fix the haulage capacity of all classes of engines over all parts of the line.

Mr. Chairman, with your kind permission, I will resume my seat, & later on, if I have the privilege, I will say something in explanation of the second portion of the paper respecting the supervision of the loading of engines.

F. POTTER—I would like to ask in what office the comparative figures are kept & what increase of office force is necessary; also what is the increased train load above the old method brought about by the new method?

The CHAIRMAN—Prof. Hibbard, can you favor us with any remarks on this question?

PROF. H. W. HIBBARD—I would like simply to call attention to a paper read before the Northwest Railway Club in Dec., 1895, by H. H. Vaughan, on the hauling capacity of locomotives, the paper being discussed at the Feb. meeting, 1896; I have just been reading over that paper & discussion. Possibly some of the members may have the numbers in their files & would be glad to refer to them.

I notice in the discussion some remarks of J. N. Barr, that I thought were in point. He said: In the midst of all this discussion, about how we could increase our trains hauled & how the motive power department had increased the number & hard-working of its locomotives, all the brunt of increased train loads & cheapening of freight transportation seemed to have fallen upon the motive power department; but if the civil engineering department would do a little something to help out, that little something that they might do would be a very important assistance. He said further: "You talk about hauling your trains up these grades. Why not take out some of those grades? Why not fix up some of those curves, & so on?" It seems to me we need more of co-operation between the civil department & the mechanical department & the department that loads 60,000 lbs. capacity cars with only 20,000 or 30,000 lbs. If all the departments would co-operate we would accomplish more than by simply ourselves bearing all the brunt.

G. L. FOWLER—I was speaking the other day with the general manager of a road that probably hauls the largest average net tonnage of any road in the world, & he said that in his original report to his board of directors, when the matter of reducing grades & easing off curves came up, it would be cheaper to put & maintain pushing engines on those grades to help up the hills than it would be to pay the interest on the increased investment required to ease the grades & the curves. And at the risk of repeating perhaps something that you are all familiar with, I will state in regard to this same road, which is the Bessemer Line, from North Bessemer to Conneaut, I had the pleasure recently of going over it very carefully, & noting their tonnage rating & method of operation. They have moguls & consolidation engines hauling their trains, & they have a system of tonnage rating there by which they take a car in units, as they call it. A unit, on their schedule, is 13,000 lbs., which is the weight of the lightest flat car which they have on the line. Of course their traffic is almost entirely conducted

in steel cars of 100,000 lbs. capacity. They have a rating for their consolidation & mogul locomotives of 430 & 400 units each. That is about 40 cars of about 100,000 lbs. capacity. But in their line from Albion to North Bessemer they have six hills, according to my recollection, & on each one of these they put pushing engines. On one of them they put two. Their schedule time for a freight train over the division, which is about 150 miles, is about 12 hours, & they maintain that speed clear through. The work that they do with pushing engines covers 27% of the total mileage of the road, & even on their climb up from Conneaut Harbor, where they have those largest engines in the world, with 24 by 32 in. cylinders, they put 30 cars on behind them & then give the engine a 10-wheel pusher to help up the first hill. But that train goes through practically without any break from Conneaut Harbor to North Bessemer, & their estimate is that they use only about half as many engines to carry the traffic through, using the pushers on the hills, that they would if they left each engine to a tonnage basis which they could carry over the controlling grades & let them go through with the trains without any assistance whatever. That this is a sensible method of operation is evidenced from the fact that, according to their own statement, they have the largest average net paying tonnage of any railway which reports to the Interstate Commerce Commission, & that practically means of any in the world. Their average net paying tonnage is between 900 & 1,000 tons. One month, I remember, it was 949 tons. That includes everything that goes over their lines behind a freight engine. If an engine goes over the road with a caboose car behind it, that is a train with no net tonnage, & of course, that cuts down the average rate. Their expense of operation is phenomenally low, so low that most railway managers look at them with a good deal of envy. Possibly some of you may be as familiar with this line as I am.

J. S. EATON—May I ask Mr. Fowler a question? He speaks of their having the largest net tonnage. Does he mean per train? If so, does his second engine count for a second train? Does he include the return mileage light of road engines & helpers in computing his train mileage?

G. L. FOWLER—I do not think it includes the return mileage of the helper, but it includes light trains. As I said, if the engine goes over the road with nothing behind it but a caboose, that is a train with no net tonnage, so that if it is averaged up with a train that has 2,000 tons net behind the engine, the average net tonnage would be 1,000, & that

TABLE 5.—CANADIAN PACIFIC RAILWAY.

DAILY REPORT OF HAULAGE CAPACITY OF LOCOMOTIVES AND TONNAGE OF FREIGHT TRAINS OVER RULING GRADES ON HAVELock SECTION, NOVEMBER 1ST, 1900. DIRECTION OF BALANCE OF TONNAGE EAST.

TRAIN.	FROM	TO	LOCOMOTIVE			TONNAGE OVER RULING GRADE.				COAL USED.	REMARKS.
			No.	Schedule Haulage Capacity, Tons.	Class of Rating	Net Schedule Haulage Capacity, Tons.	Contents.	Tare.	Total Actual.	Equivalent Tonnage.	
Extra	Havelock	Smith's Falls	707	1,008	"A"	1,008	532	416	948	998	6
54	"	"	739	1,008	"A"	1,008	400	513	913	1,003	6
56	"	"	725	1,008	"B"	908	382	464	846	922	5
50	"	"	723	1,008	"A"	1,008	127	487	914	1,004	5
Way freight extra	"	"	705	1,008	"A"	1,008	480	473	953	1,020	6.5
52	"	"	701	1,008	"B"	908	297	513	810	918	5
Extra	"	"	713	1,008	"A"	1,008	537	423	960	1,007	6.5
				7,056		6,896	3,155	3,289	1,344	6,872	40

Percentage of Total Equivalent Tonnage taken to Net Schedule Haulage Capacity over Ruling Grades, 100%.

NOTE.—Under the old "net tonnage" method of loading engines, these engines would each have been scheduled at "A" rating to take 913 actual tons through over the section, or a total for the seven engines (2 at "B" rating) of 6,260 tons—whereas under the new method they brought 6,344 tons through over the section—a gain of 135 tons, or 19.3 tons per train. If the proportion of tare had been one-third on each train, this power would have taken 6,856 tons through over the section—or 512 tons more than it was able—owing to large proportion of tare—to bring through.

Ontario Division Bridges.—The Board of Railway Commissioners has approved plans for the following bridge work:—Havelock section, mileage 99.3 and 99.4, reinforcement of present spans. Toronto section, mileage 15.4 and 24.3, reinforcement of present spans; mileage 83.4, clearance diagram; mileage 96.8, material for 100 ft. deck span. London section, mileage 11.8, clearance diagram and material for 100 ft. deck plate girder. Windsor section, mileage 2.9, abutment and iron-work; mileage 4.1, clearance diagram. Teeswater section, mileage 29, 35.4, 35.45, clearance diagrams.

An order has been issued by the Railway Commissioners authorizing the C.P.R. to construct a steel bridge under the highway between concessions 2 and 3 London tp., Ont., and to close up a portion of the present highway, a diversion to be made so as to carry the road over the bridge.

November 1904

A CHRISTMAS STORY

(Reprinted from Herald Press Graphic)

OF THIS STORY THE LATE SIR WILLIAM VAN Horne is the hero, and I shall endeavor to reproduce the scenes as he so cleverly sketched them to me in his home one winter night, the while we smoked the after-dinner cigar. Picture then a Christmas eve in Toronto, crowds of shoppers abroad in the brilliantly illuminated thoroughfares, and Sir William Van Horne walking down Yonge Street towards the station in a magnificent fur-lined overcoat with a sable collar. Yes, he was proud of the figure he cut in that coat — he admitted it. It was one he had bought within the hour in a Toronto store. He was going back to Montreal and, as often happened in those days, he travelled with the passengers instead of in a special car. When he got on the train, prior to going to the smoking-room, he threw off his new coat and threw it over the back of his seat. There he left it.

There ends Act. I. And there began the troubles of the evening.

All alone the C.P.R. president's overcoat occupied the

president's seat. Sir William did not come near it until the train pulled up at Burketon Junction, and then he only gave it a passing glance as he rushed through the car, in a hurry to get out and see the station agent. When he returned the overcoat was gone. Sir William raised a rumpus. He cross-examined the conductor, and called in the trainmen. They could give no explanation of the disappearance. Sir William was inconsolable. His beautiful coat was gone — the handsomest coat he had ever had! The only clue to it that could be discovered was that supplied by a passenger, who said that when the train stopped at Burketon Falls he saw a man passing through the carriage with a coat on his arm.

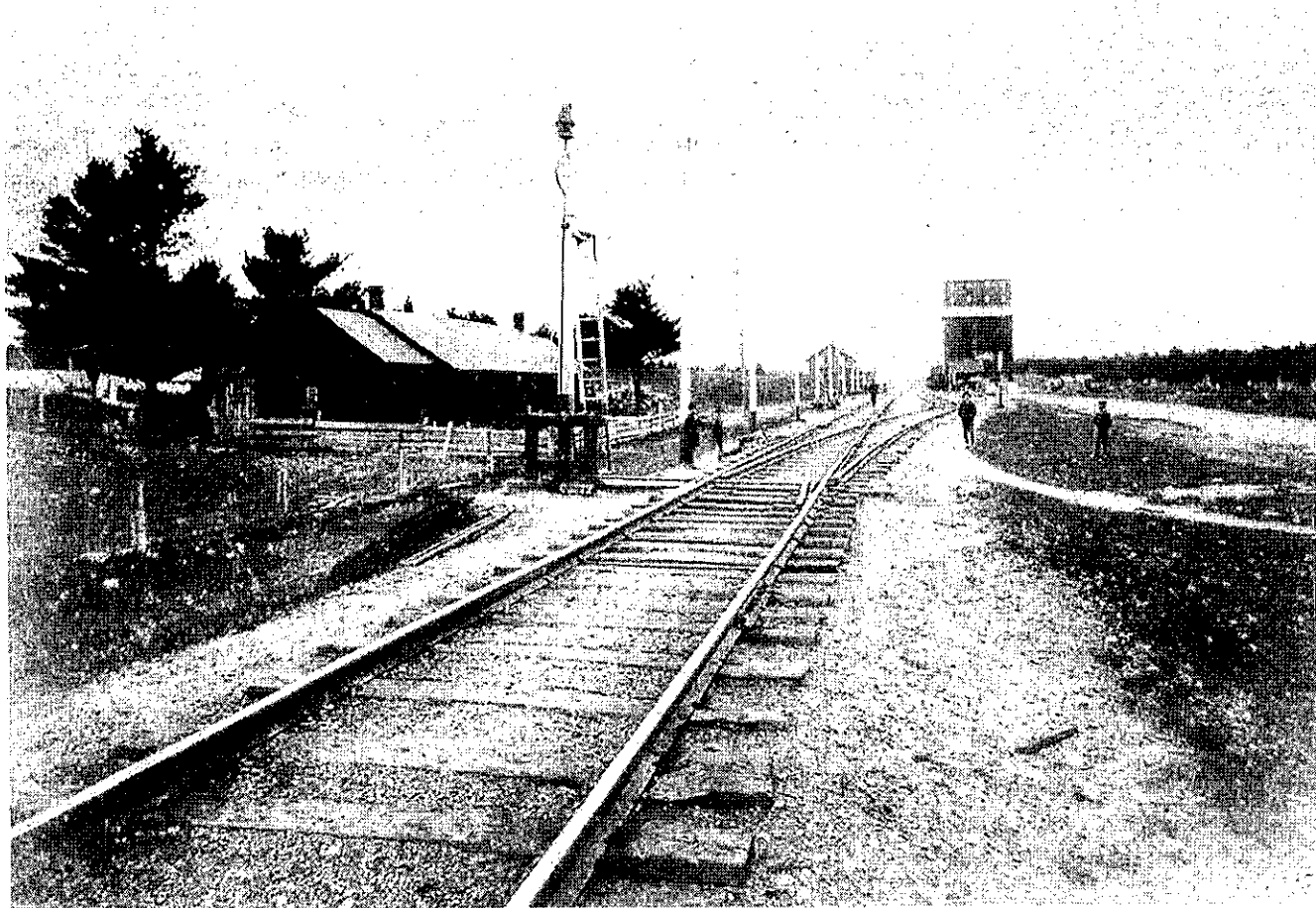
"Did he get off the train?" asked the president.

"Really, I couldn't say."

"What sort of a man was he?"

"I haven't the least idea. I was reading at the time and didn't take much notice of him."

By the president's orders, the train was pulled up at a



The Canadian Pacific Railway station at Burketon Ontario as it appeared when photographed on May 5 1898 by company photographer J. W. Heckman. Except for the time of year, it must have looked the same on that long-ago Christmas Eve when President Van Horne noticed his coat missing as the train left that same location.

C.P. Rail Corporate Archives, photo No. A-20524.

wayside station, and a wire was sent back to Burketon Falls to put the police on the track of any man seen wearing a black, fur-lined overcoat with a sable collar.

Then Sir William, in his democratic way, strolled forward to the baggage car to hunt out another coat from his baggage. As he passed through the third-class coach, he saw a man sitting there wearing an overcoat remarkably like the one he had lost. But the collar was turned up and he could not be sure. He scrutinized the man carefully and passed on to the end of the car. Then he turned back through the car and gazed fixedly into the man's face.

The man turned troubled eyes to the president and quickly averted his gaze from the piercing scrutiny. In that glance the president knew him to be guilty. He leaned over the man and said in a low voice: "Come forward with me to the baggage car."

"What for?" asked the man obstinately.

"Because I say you've got to," replied the president, "unless you want a fuss made before the other passengers?" The man got up and followed the president without another word. The conductor, at a sign from the president, also followed.

"Now," said the president, sternly, when the baggage car was reached, "where did you get that overcoat?"

The man looked at his questioner sheepishly.

"I don't see that I'm bound to tell you," he answered.

He was evidently a laboring man, and was overshadowed and subdued by the president's manner. His face was bronzed and weather-beaten; it was by no means the face of a criminal. He looked like one of the great army of workers who, by labor with pick and shovel and axe, spend their lives in conquering the wilderness for their fellow-men.

With a quick movement the president slipped his fingers into the breast pocket of the coat and pulled out a silk handkerchief. On one corner of this were his own initials.

"Do you know to whom that belongs?" asked the president, shaking the handkerchief threateningly in the man's face.

"No."

"That handkerchief belongs to me, and that overcoat you've got on belongs to me. Now do you know what I'm going to do with you? I'm going to hand you over to the police at the next station."

"Oh, for God's sake, don't do that, sir" exclaimed the man, almost in tears.

He stripped off the overcoat and held it out.

"Here's your overcoat. I didn't mean to steal it. I saw it lying on the seat, and I thought some passenger had got out and forgotten it. Really, sir, I never meant to steal it!"

"If you didn't mean to steal it, why didn't you hand it to the conductor?"

"I thought if I didn't take it somebody else would. I looked on it as a stroke of luck, that's all."

"Well, you'll find it a stroke of bad luck for you, my man!"

"Get a policeman as soon as we get into Bethany Junction," he said to the conductor. "I'll look after this man meanwhile."

"My God, sir! don't do it!" pleaded the man. "It'll drive

my poor wife crazy. I haven't been home for six months — been railroading back in the bush. She and the little ones are expecting me for Christmas."

"Where do you live?"

"At Peterborough."

"What's your name?"

"Kennedy."

"I suppose you've got four or five little ones looking forward to your coming home Christmas?" asked the president, sarcastically.

"Yes, sir." Tears came in the man's eyes; a choking sob burst from him.

"Shut up, you snivelling coward!" roared the president. To see the man actually in tears angered him beyond measure.

The brakes were already grinding on the wheels. The man put his hand on the president's arm, "Don't do it, sir," he said. "I don't ask it for myself, but for my wife and youngsters. There's no harm done. You've got your coat."

The president shook him off roughly. "You common thieves," he said — and the words cut the laborer like a knife — "you common thieves are always afraid to face the music. You always snivel about your 'wife and family at home' when you're found out. But I've made up my mind to stop your little games on this railroad and by Gum, I'll do it?" "Jump out and get a policeman," he said to the conductor, as the train came to a standstill.

A few minutes afterwards the conductor returned with a policeman, and the man, silent and dejected, was marched off into the dark night in custody.

When the train started off again for Montreal the president rode in the baggage car. He sat on the top of a pile of boxes, quietly smoking a cigar and dangling his feet. His gaze was fixed on a new perambulator, but it was a long time before he really saw it. When the conductor came in he nodded toward the perambulator, and remarked: "Seasonable present, eh?"

"Yes, sir, a very useful sort of article," replied the conductor.

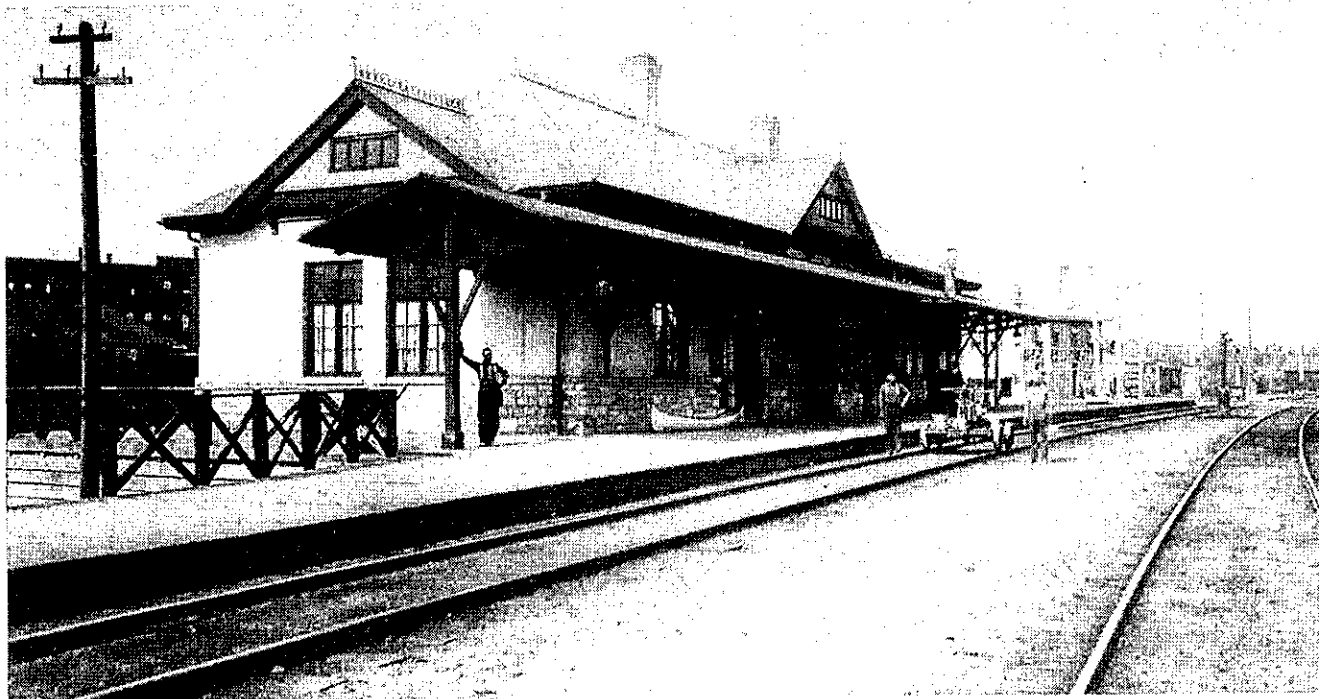
"But what I want to know," replied the president, "is why anybody should buy a wheeled baby carriage at this time of the year. A man bought that, for sure. A woman would have bought one with runners at this time of the year."

"Of course she would," replied the conductor. "But the man must have had a busy time shopping, mustn't he? There's a rocking horse in the baby carriage; there's a toboggan; there's a turkey, and, oh — dozen of things. It'll be a pretty happy Christmas wherever that baby carriage and its load is going."

"Yes, a carriage for the new baby, and lots of presents for a pretty healthy little family, by the look of it."

The label on the baby-carriage caught the eye of the conductor. He lifted it with his thumb and forefinger, and bent over to look at it. Then he dropped it as though it burned his fingers, and turned to the president with something like consternation in his face.

"What does it say?" asked the president. "Why man, anybody would think it was dynamite with a live fuse attached to



*C.P.R. station at Peterborough Ontario on May 10 1899, photographed by J. W. Heckman. It was here that Mr. Kennedy was reunited with his family on a Christmas Eve not long before this photo was taken.
C.P. Rail Corporate Archives, photo No. A-20511.*

look at you. What's on the label, anyway?"

"It says John Kennedy, Peterborough."

"Holy Caesar!" exclaimed the president, springing to his feet. "Why that's the man who took my overcoat — the man I had arrested!"

"Yes, sir."

The president stood for a long time looking at his cigar. He recalled the pitiful pleadings of the man — his pale, agonized face, the unmanly tears.

"It'll drive my poor wife crazy," the man had said. "I haven't been home for six months — been railroading back in the bush. She and the little uns have been expecting me for Christmas."

Sir William thought of his own wife and family in his luxurious home in Montreal. They were waiting for him this Christmas eve, he knew, waiting and counting up the hours before he would return. Yet he had only been away two weeks. As a contrast he pictured some humble little home in Peterborough where a poor woman, who had not seen her husband for six months, was waiting this Christmas eve for his arrival. She would have scrubbed up the house till it looked as clean as a new pin. She would have a dainty meal ready for her husband and the president's imagination added the domestic touch of a kettle singing on the stove. She would have put clean clothes on the little children, and probably at this moment, was telling them for the hundredth time, "Your father's coming home!" And the little children! Surely they were dancing about the house and saying, "Daddy's coming! Daddy's coming!" He knew what little children were! Lastly came a stinging thought. The baby carriage was probably meant for a new baby that the father had never seen.

The president began to repent. After all, what had the man done! Probably he really thought the overcoat was lost, and had

picked it up just the same as a man might pick up a ten-dollar bill on the floor of a hotel, feeling he might as well have it as anybody else.

When the train got to the next station, Sir William jumped out and walked into the little station house.

"Give me that key," he said to the astonished operator. The president had been an operator in his early days, he at once sat down at the telegraph instrument and gave the call for Bethany Junction. When he got through to that place he sent a message that considerably surprised the operator at the other end.

"Get Kennedy, the man arrested this evening, released immediately. His arrest a regrettable mistake. Get out an engine and one car and immediately run a special through to Peterborough. Kennedy must get there to-night."

"By whose orders?" asked the operator at the other end.

"By order of the president, William Van Horne," was the reply.

At Peterborough station that night a woman named Kennedy, with a baby in her arms, and three or four little ones flocking around her, was considerably astonished to hear an important looking gentleman, who stepped from the train on which she had expected her husband, inquiring for her by name.

"Is Mrs. Kennedy here?" roared Sir William.

"Yes, sir," said the woman timidly. "I'm Mrs. Kennedy."

"Your husband is coming along on the next train," said Sir William.

"He'll be here in a couple of hours. Here, let me shake your hand and wish you a Merry Christmas, God bless you, ma'am! God bless you!"

He jumped on the train and was gone.

And in the hand that the president had shaken Mrs. Kennedy found a Christmas present. It was a twenty dollar bill! —

Source: Pembroke Standard, Dec. 15, 1915.

A RAILWAY THROUGH THE KAWARTHAS

The Ontario & Québec Railway

David Hales

Photographs by the Author

Even though Canada's main line railways are generally given all the glory and arbitrarily take all the praise just as if it were their proper due, the many branch lines which criss-cross our country have a character and an importance, as well as a significance of their own.

One railway that might be selected for examination, out of the many which merit consideration, is CP RAIL's Havelock Subdivision, from Glen Tay, west of Smiths Falls and Perth, Ontario, to Kennedy, about 12 miles northeast of the Queen City of Toronto. This line was built under the charter powers of the Ontario and Québec Railway Company in 1883-84 and was leased to the Canadian Pacific Railway Company for 999 years from January, 1884. The O&Q was the Canadian Pacific's successful attempt to break the monopoly on passenger and freight traffic between southern Ontario and Montréal which, prior to that time, had been held by the Grand Trunk Railway Company of Canada.

The Ontario & Québec was originally incorporated in 1871 to construct a line of railway between Toronto and Ottawa, via Peterborough, Madoc and Carleton Place, but it was not until 1881, with George Stephen and Duncan McIntyre - both of whom were directors of the Canadian Pacific Railway Company in the same year - among the directors of the Ontario & Québec, that construction actually began.

Initially, the O&Q was built from West Toronto to Perth, Ontario, connecting at the latter town with Duncan McIntyre's Canada Central Railway from Smiths Falls, Carleton Place and Ottawa. Access to Montréal was obtained by a bridge over the Ottawa to Hull and a connection there with the Québec, Montréal, Ottawa and Occidental Railway, today CP RAIL's "North Shore Line" between Ottawa and Montréal.

The Ontario & Québec was opened for business in May 1884 but, as it was already leased to the CPR, it never purchased any rolling stock or motive power. This was all furnished by the lessor, some of it being sub-let from the Canada Central Railway. What did it matter? The revenues all went into the same pocket, that of the CPR.

The total length of the O&Q's main line from West Toronto to Perth was 184.1 miles, some of it hard going, as it meandered across the scenic Lake Ontario escarpment. It was likely these operating difficulties, together with the lack of population in the territory through which it ran that encouraged the CPR to look for an alternate location for its Toronto-Montréal main line and this it found early in 1913.

The new "Lakeshore Line", via Bowmanville, Port Hope and Belleville, was completed in 1914. Parallelling the Grand Trunk for the distance from east of Bowmanville to east of Belleville, it then swept north from the lakeshore to a junction with the O&Q at Glen Tay. The distance from West Toronto to Perth via this new route was still 185.4 miles, but the curves were easier and the grades less steep. And the centres of population along the track were larger.

When the "Lakeshore Line" was opened for traffic, the O&Q lost much of its main-line status. Today, the only active portion of the Ontario and Québec is that from Kennedy (Toronto) to Tweed, Ontario, 31.2 miles east of Havelock.

Reasonably soon after the main line of the O&Q was opened for business, the Canadian Pacific began building branches to the north and west: to Lindsay and Bobcaygeon; to Orillia and Port McNicoll on Georgian Bay. Another branch was built from Havelock to Blue Mountain, via Nephton, but this was not added until the 1950s, 1954, to be precise. The Port McNicoll Subdivision left the O&Q at Bethany Junction (Dranoel) and the Bobcaygeon Subdivision branches off at Burketon Junction (Burketon). Today, only the Lindsay and Nephton branches still have train service, with the employees' timetable showing "No regular trains".

Speaking of junctions along the line, one of the more unique was the encounter with the Kingston and Pembroke Railway at Sharbot Lake. Once a comparatively busy station on the O&Q, nothing but memories remain today.

An interesting feature of the service to Bobcaygeon between the wars was what was sometimes described as the "Bobcaygeon Special". This was a summer only, weekend service direct from Toronto to Bobcaygeon, on the shores of Sturgeon Lake, one of the most beautiful of the Kawarthas. The train always departed from Toronto Union Station, but, at one time, the return service on Sunday night operated via North Toronto.

Initially, there were two night passenger trains each way over the O&Q, one from West Toronto to Montréal and the other from Toronto Union Station to Ottawa, via Carleton Place. The former service was a victim of the "Depression Years" and the latter made its last

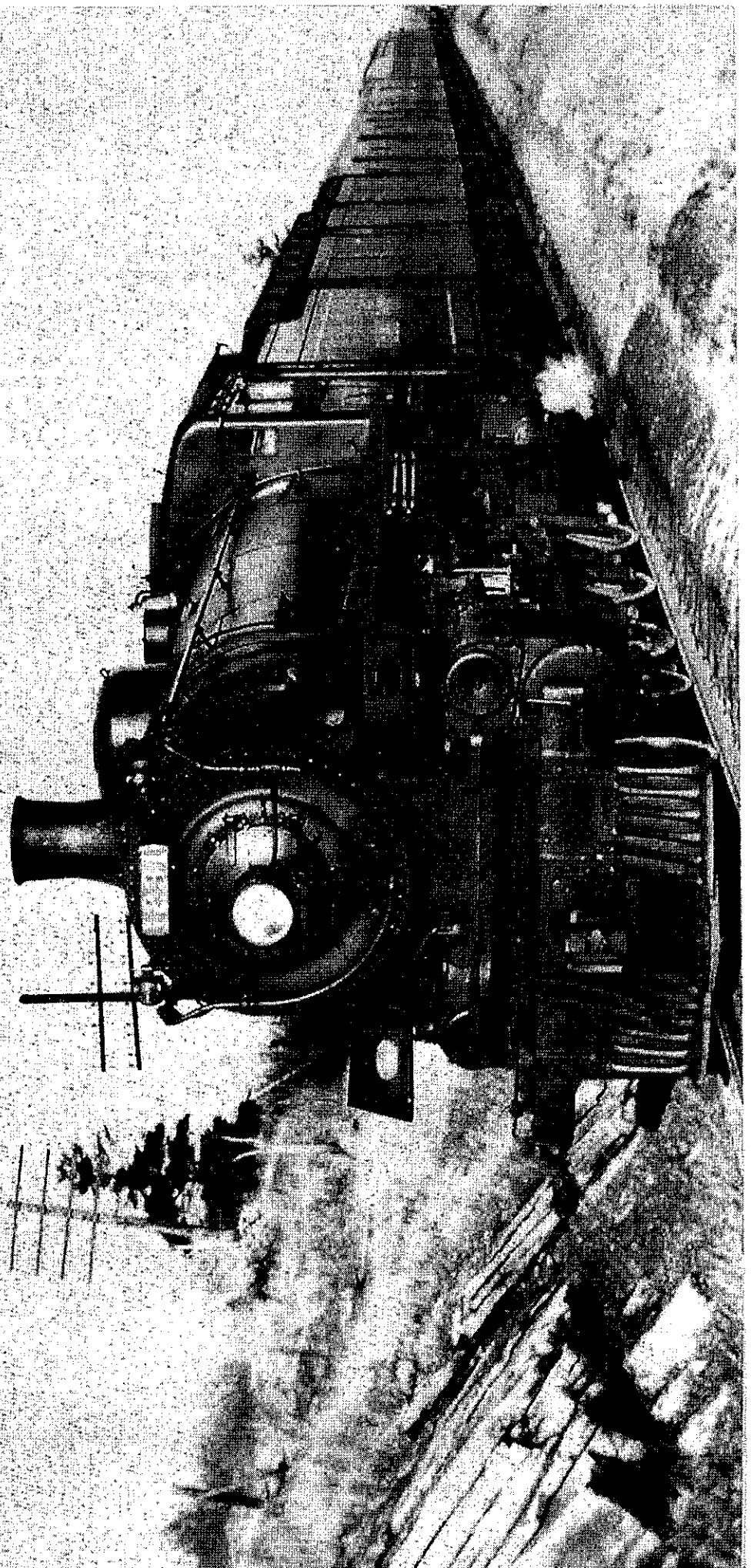


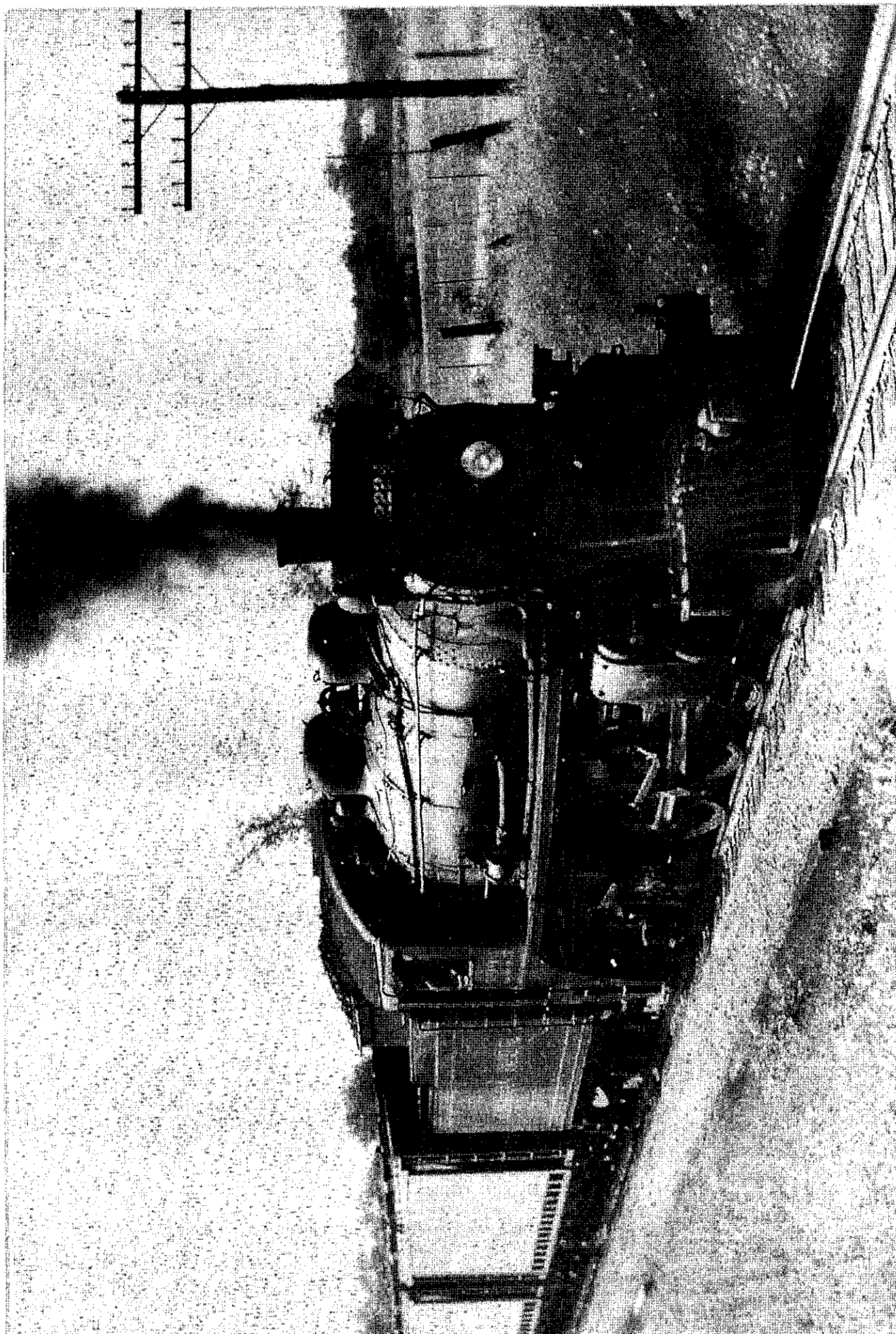
IN THE DAYS OF STEAM, CANADIAN PACIFIC ENGINE NUMBER 1231 WAS THE MOTIVE power on Train 35 At Kaladar, Ontario. 8 December 1952.

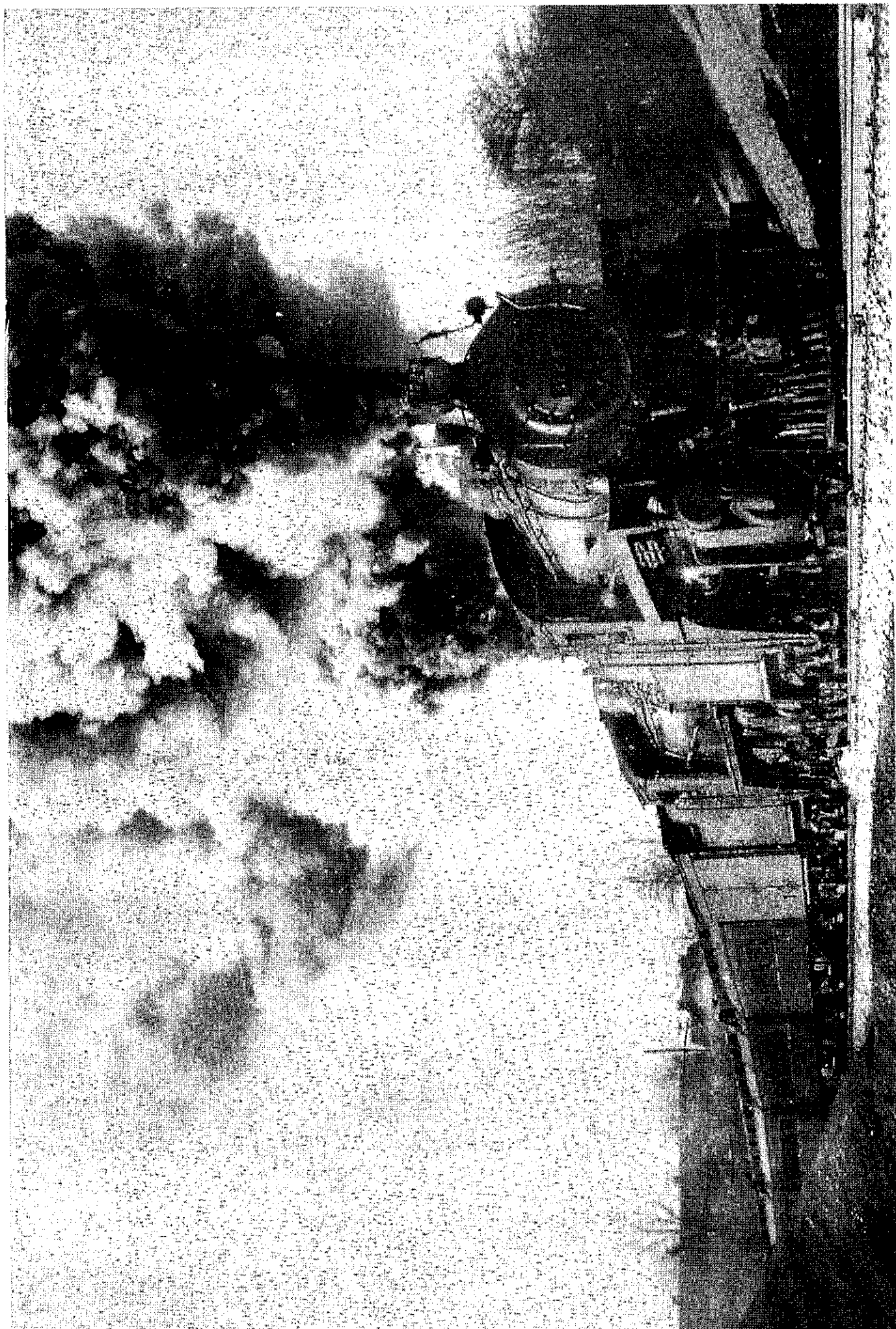
Photo Paterson-George Collection

CPR 4-6-2 NUMBER 2224 HEADED AN EXTRA FREIGHT AT HAVELOCK ON AUGUST 9, 1958, before the line was dieselized. Photo Paterson-George Coll.

TRAIN 36 OF CANADIAN PACIFIC, FOR PETERBOROUGH AND HAVELOCK, STORMED up the hill through Leaside, Ontario on a day in 1940, powered by engines Numbers 3724 and 2200. Photo Paterson-George Collection.







WESTWARD TRAINS INFERIOR DIRECTION				Miles from Glen Tay	HAVELOCK SUBDIVISION		Train Order Office Signals	Car Capacity Seating	EASTWARD TRAINS SUPERIOR DIRECTION			
SECOND CLASS		FIRST CLASS			STATIONS	FIRST CLASS			FOURTH CLASS			
91	383	381				380			382	90		
Freight Daily	Passenger Sun. only	Passenger Daily ex. Sun.				Passenger Daily ex. Sun.	Passenger Sun. only	Freight Daily				
				62.5	TWEED.....Z		43					
				66.4	BULLER.....		NH					
				71.8	IVANHOE.....		38					
				80.4	BONARLAW.....Z		38					
				89.7	BLAIRTON.....		38					
1900	1645	0510		93.7	HAVELOCK.....KZ S		96	1900	2259	0130		
					Jct. Nephthos Sub.							
1915	F1655	F0520		99.8	NORWOOD.....		42	F1850	F2247	0120		
1940	F1707	F0532		108.2	INDIAN RIVER.....		44	F1840	F2235	0105		
1959	S1720	S0545		118.0	PETERBORO.....KZ B O		20	B1825	S2220	0040		
2014	F1733	F0558		127.0	OAVAN.....		42	F1806	F2209	0010		
2023	F1742	F0607		132.4	DRANOEEL.....RYZ		NH	F1759	F2200	0001		
					Jct. Bobcaygeon Sub.							
	F1748	F0613		135.2	MANVERS.....		NH	F1754	F2154			
2037	F1754	F0619		139.1	PONTYPOOL.....		38	F1748	F2148	2345		
2054	F1806	F0631		148.0	BURKETON.....		35	F1736	F2136	2330		
2124	F1818	F0643		157.3	MYRTLE.....		37	F1724	F2124	2315		
2140	F1824	F0649		161.0	DAGMAR.....		NH	F1719	F2119	2305		
2211	F1832	F0657		166.2	CLAREMONT.....		30	F1711	F2111	2255		
2225	F1842	F0707		173.7	LOOUST HILL.....		NH	F1710	F2101	2245		
2235	1850	0715		178.9	TAPSCOTT.....RZ		Yard	1653	2053	2235		
				180.3	TORONTO YARD.....OKW	Y A	Yard					
				181.5	BRIMLEY.....		Yard					
	S1855	S0720		181.6	AGINCOURT.....R G N			S1648	S2048			
	1857	0722		182.4	KENNEDY.....			1646	2046			
Daily	Sun. only	Daily ex. Sun.			Rule 93a applies.			Daily ex. Sun.	Sun. only	Daily		
91	383	381			Rules 41 and 44 apply between Havelock and Tweed.			380	382	90		

run at the conclusion of the "Pool-Train" service with Canadian National Railways in 1965.

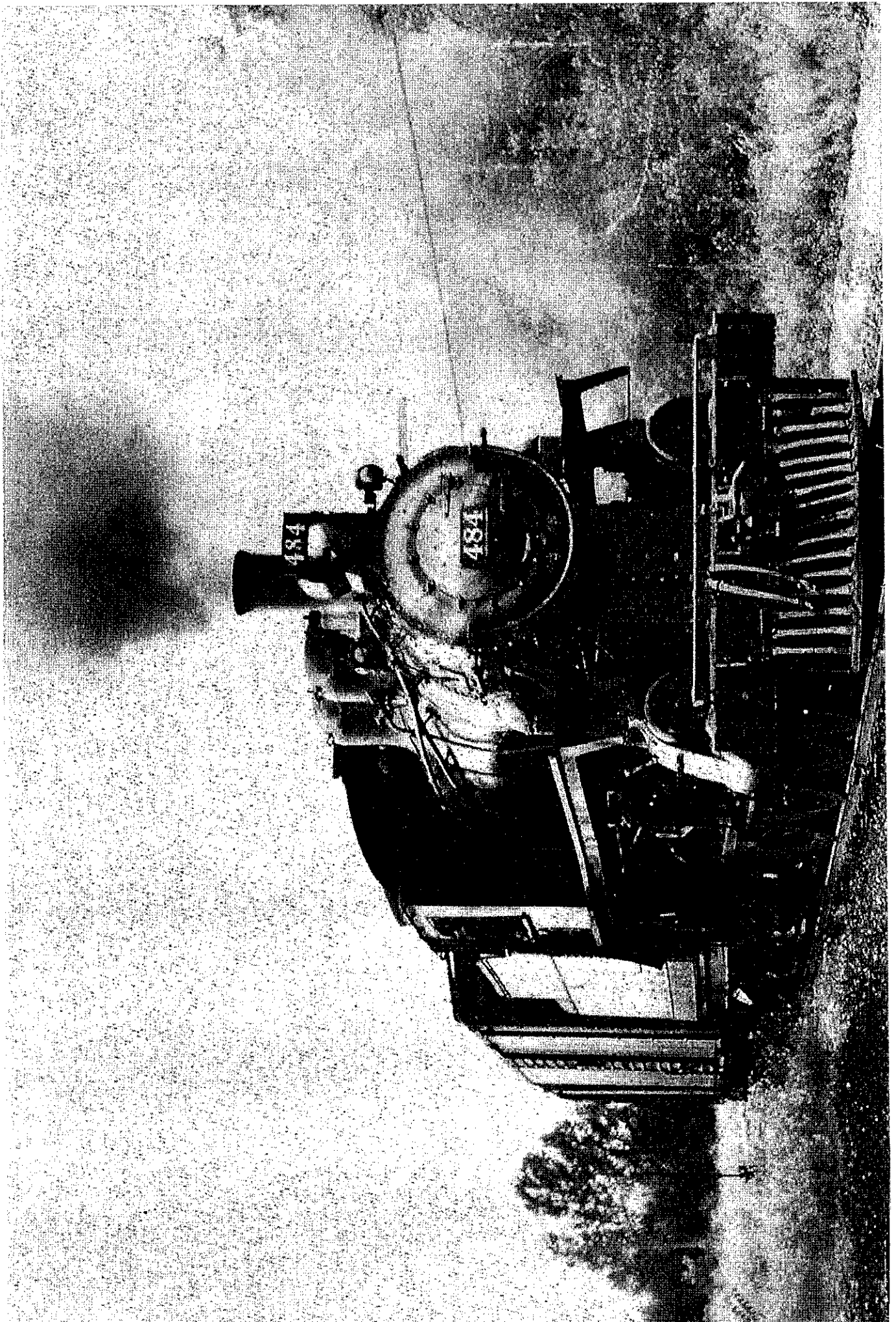
In addition to the through trains, passenger services provided by the O&Q over the main line included a Toronto-Tweed local, which was subsequently cut back to Peterborough. The run was afterwards extended to Havelock in 1958, when the steam-hauled passenger train was replaced by BUDD RDC "Dayliners".

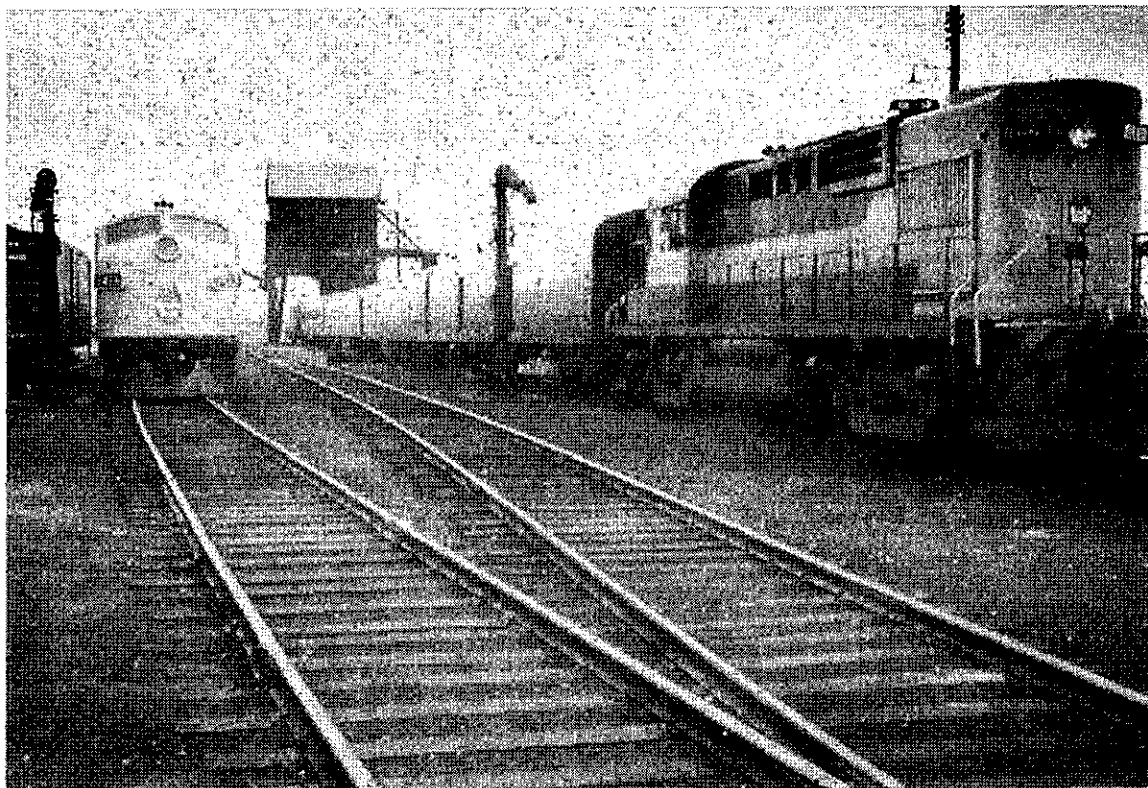
In the post-World War II era, there were as many as five passenger trains each way daily on the O&Q, despite its quasi-branch-line status. These included the Havelock-Bobcaygeon mixed, which rattled over the 18.1 miles to Lindsay.



CANADIAN PACIFIC TEN-WHEELER NUMBER 484 WAS THE POWER FOR THE MIXED train at Bobcaygeon, Ontario, on a day in July 1959.

Photo Paterson-George Collection.





↑ THE YARD AT HAVELOCK, ONTARIO, IN OCTOBER 1959 BOASTED OF TWO PASSENGER trains on weekends. On the right is Canadian Pacific Railway Train 35-36, the Sunday-only passenger to and from Toronto. On the left is the Toronto-Peterborough-Havelock local. Not surprisingly, in 1973 the coal chute no longer exists.

Daytime passenger services used to consist of one through train from Toronto to Montréal, which ran until April 1960, and later, a curious service between Toronto and Ottawa, which ran for three months only in 1965-66. Local services were provided between Toronto Union Station, Peterborough and Havelock. For the most part, this service continued until 1958 on approximately the following schedule:

7.10 a.m.	LV Peterborough	AR	8.40 p.m.
9.15 a.m.	AR Toronto Union	LV	6.30 p.m.

After 1958, the passenger trains terminated at Havelock, 24.3 miles east of Peterborough, presumably for operating reasons, as the crews were paid mileage. From 1954 to 1969, an additional passenger service was provided by a fast Budd RDC "Dayliner" run of 80 minutes for the 76.4 miles between Toronto Union and Peterborough.

Today's passenger services on the former O&Q consist of a two-car RDC "Dayliner" train, with the majority of passengers travelling to Toronto from the suburban areas served by the railway. But the weekend passengers to the Kawartha Lakes area account for the largest portion of the passenger-miles. On holiday weekends, the consist of this train is usually augmented to three RDC "Dayliners".

Over the years, the major portion of on-line freight traffic has consisted of a large volume of the mineral, nepheline syenite, from the mine and plant of International Chemical Corporation (Canada) Limited at Nephton, Ontario, 16.3 miles northwest of Havelock on the Nephton Subdivision. Today, the freight run between Toronto Yard and Havelock is made behind a trio of DRS 10 & 12-class units.

Frequently in winter, a DRS 18 appears in the lash-up. Although it is not indicated in the timecard, there is still a daily freight service from Havelock to Tweed, 31.2 grass-grown miles further east, with forest products forming the largest part of the freight traffic.

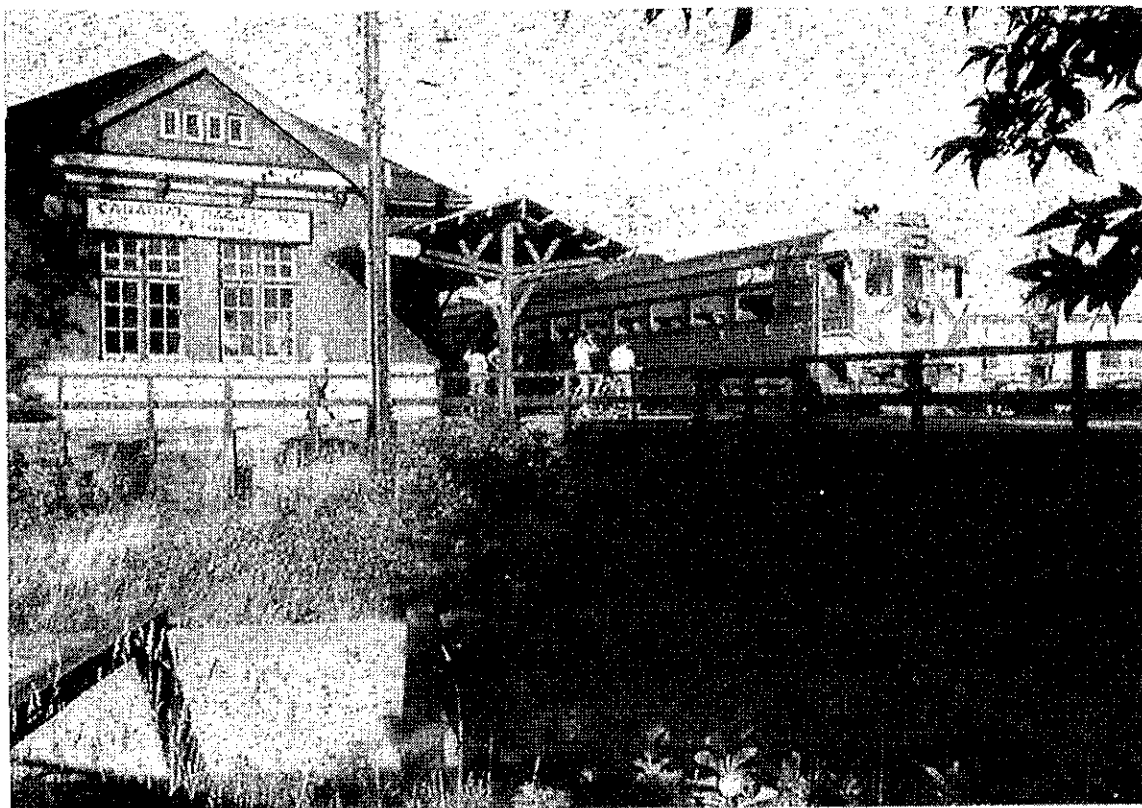
The O&Q's operating history has not been without incident. In each of the last two years, service has been interrupted by severe snowstorms in the winter months. In June 1972, there was a train-truck collision at a level crossing, which put the two-car RDC "Dayliner" train in the ditch. The lead unit, Number 9052, had its underframe broken so badly that the unit was scrapped.

While Canadian Pacific Railway RDC "Dayliners" first appeared on the O&Q with the introduction of the fast service to Toronto in 1954, today it is hard to say what the future holds for the remaining portions of this pioneer line. The proposed new jumbo-jet airport at Pickering will probably take over a good part of the right-of-way around Claremont and anything which remains in this area will be engulfed by the new satellite city, expected to be built to the south.

There is a trend in this age away from the megalopolis to smaller and less complex centres, with necessary and desirable transportation corridors to the core of the city. GO TRANSIT, with its co-ordinated passenger services, seems to be evidence of this inclination. If this concept is adopted, it is reasonable to suppose that at least a part of the historic Ontario and Québec Railway will con-



CP RAIL "HOLIDAY EXTRA" STANDING IN THE STATION AT PETERBOROUGH, ONTARIO in August 1970. RDC "Dayliners" Numbers 9052 and 9063 were the train. On holiday Mondays, this train operated as an extra.



tinue to survive and to offer its important services to the travelers in this part of Ontario.

➔ AT THE "END OF THE TRACK" AT HAVELOCK, ONTARIO, CP RAIL KEPT A SE-
lection of power for the freight trains. Units Numbers 8164, 8762
and 8144 burble in the sunlight.

↓ ONE UNLUCKY DAY - 17 JUNE 1972 - TRAIN 381 COMPOSED OF RDC "DAYLINERS"
Numbers 9052 and 9057 was hit by a truck at a level crossing near Pe-
terborough. The point of impact on the side of the first unit is very
obvious. RDC Number 9052 was afterwards scrapped.

NEPHELINE SYENITE IS LOADED INTO COVERED HOPPERS AT THE NEPHTON MINE
of International Chemical Corporation at Nephton, Ontario. The adja-
cent boxcars are used for other commodities to and from the mine.

