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COVER

A ROTARY PLOW OF THE MONTREAL STREET RAILWAY at work on the Amherst Park line on February 20 1904. The passenger car on the right appears to be a single-truck car of the type built in 1899 and 1900.

C.R.H.A. Archives.

OPPOSITE

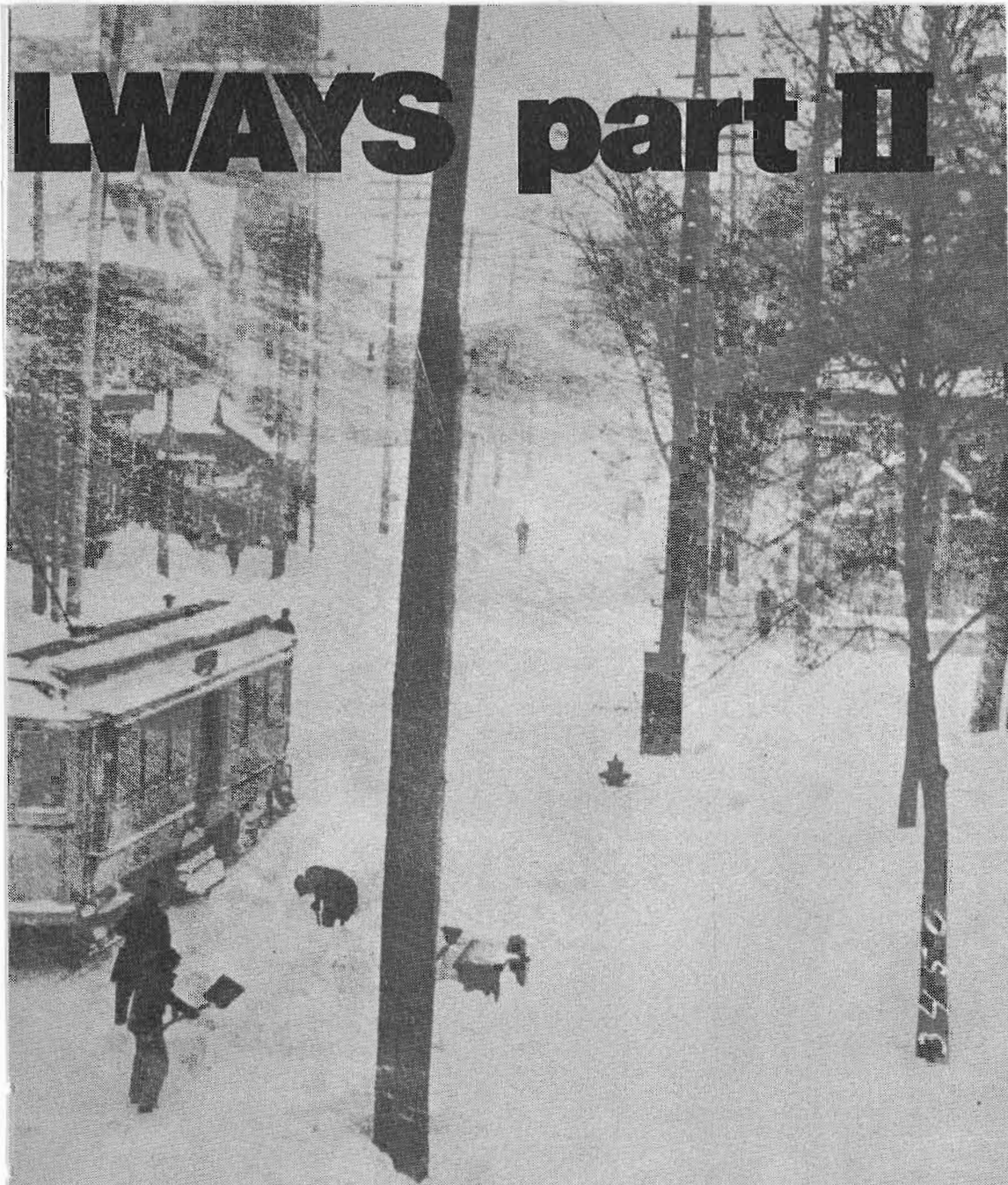
ONE OF THE PIONEERS OF ELECTRIC TRACTION IN CANADA was the Ottawa Electric Railway which was opened with electric cars in 1891. Here we see sweeper No. 2 ready to go into service on a snowy day about 1892.

Public Archives of Canada PA 33907.

SNOW ON RAIL



LWAYS part II



THIS OFTEN-REPRODUCED PHOTO captures the atmosphere of snow clearing on city streets at the turn of the century. The scene is Montreal's St. Catherine Street, and the date is 1902. The street car is No. 722 of the Montreal Street Railway. This was one of the centre-entrance "Scotch" cars built in 1901 and based on a type used in Glasgow Scotland. Public Archives of Canada C 17819.

Street railways and interurban lines

Snow is a problem in winter operation of street car lines and interurban railways as much as it is on main-line railways. The conditions of operation range all the way from small street railways which operated on paved thoroughfares all the way up to heavy interurbans which closely resembled large railways.

In the early days the difference was distinct; street railways were light and usually horse-operated, and interurbans as such did not exist. In areas of little snowfall, the horsecar tracks would be cleared by hand shovelling, although in some cases small plows might be used. In cities which had much snow, the companies did not attempt to clear the track in the winter; they would keep the lines open as long as they could, but then would store the street cars until spring, and use large sleighs mounted on runners. In fact there would have been complaints from owners of private sleighs if they had tried to keep the tracks open once the heavy snow came.

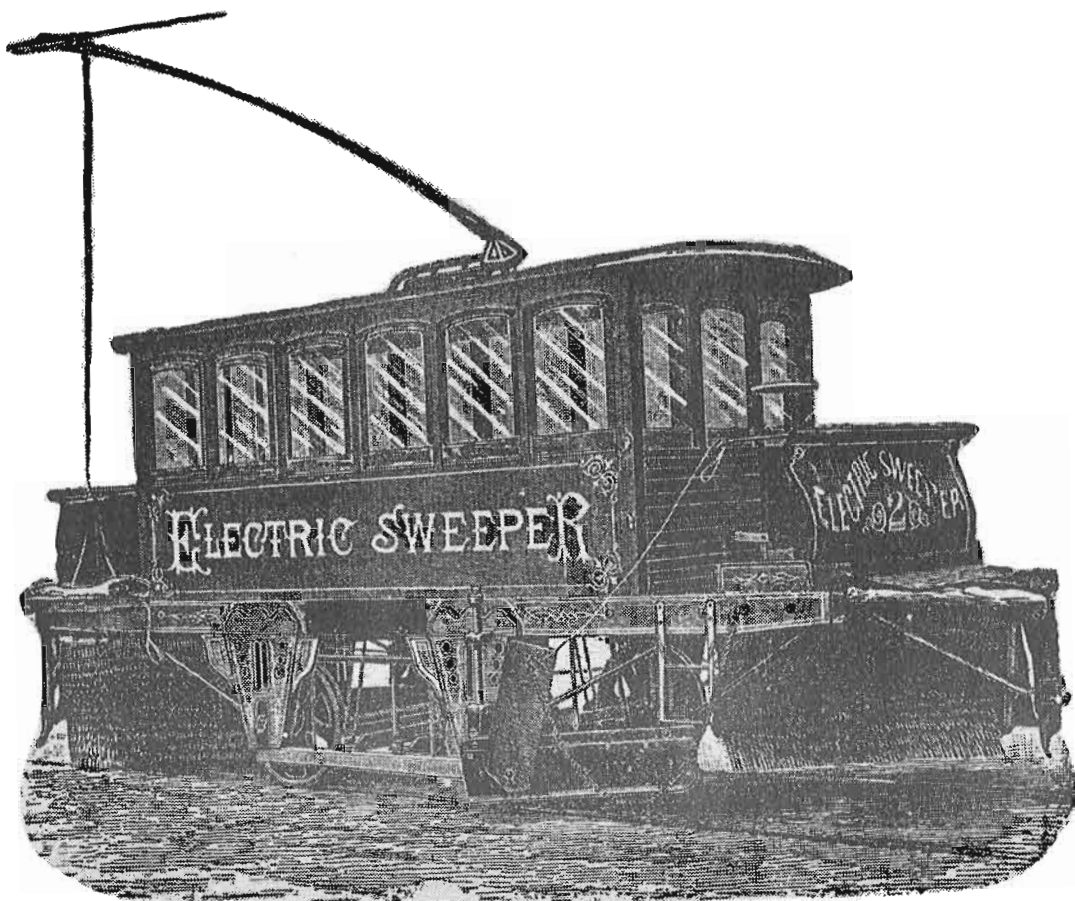
With the coming of the electric cars in the late 1880's and the 1890's the situation changed greatly. Electric car service was so much faster and more efficient than horse operation that it would not have been practical to return to horse sleighs in the winter months. This meant that the tracks would have to be cleared, and equipment was built for this purpose. Some people thought that electric cars could never be used in cities such as Ottawa and Montreal where there was much snow, in fact the president of the Montreal Street Railway resigned in 1892 when the directors decided to electrify the system! But Ottawa and Winnipeg had showed that it could be done, and Montreal, Toronto, and soon many other cities, electrified in the 1890's. In Montreal some sleighs continued to run in 1893 and early '94, but soon full year-round electric operation was instituted.

While plows were frequently used on city lines, the most usual snow-clearing device was the sweeper, a car that had a large revolving brush, usually set at an angle, turned by a motor linked to the brush by chains. This was quite spectacular as it swept the streets during a snowstorm. Sweepers continued in use until the 1950's, although in later days they were less efficient due to salt and other chemicals put on the streets for the benefit of automobile traffic. Of a course a sweeper or plow was absolutely vital for winter operation in Canada. One embarrassing event happened in Saint John New Brunswick which had electrified in 1893 but had neglected to buy a sweeper. A major snow storm struck in January 1894 and the lines were closed for almost a week while the tracks were dug out by hand by men wielding shovels. Significantly, that system bought a sweeper the same year, and in an almost identical storm in December 1894 the tracks, although by now more extensive, were cleared in a few hours.

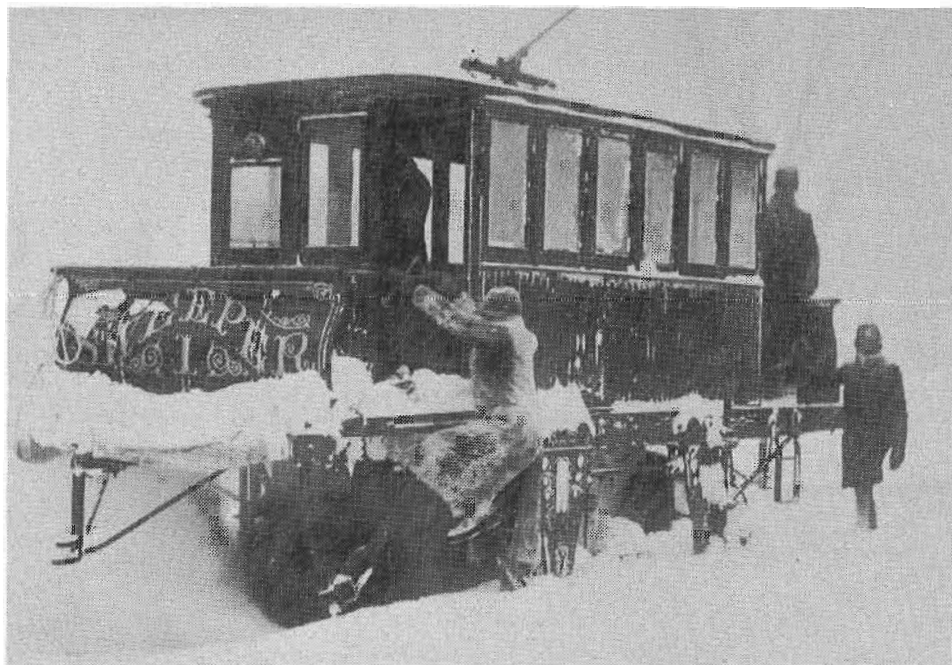
Another product of the electric era was the suburban, and later the interurban line. Street car lines were often built well beyond the built-up parts of cities as an incentive to developers to open up these newly-accessible areas. Often the track was on private right-of-way, and certainly in more open country. Here the snow problem was more like that on regular railways, and larger plows were built to cope with it. Some systems even had rotary plows which were smaller-sized versions of their big brothers out West, and of course electrically powered.

The smaller interurbans were similar to suburban lines, but others were almost the same as the steam railways, and the snow-fighting equipment used was very similar. Often a conventional railway snow plow would be pushed ahead of an electric locomotive in the same manner as it would be behind a steam engine on a "big" railway. Sweepers were not used on such lines, but as many interurbans had street operation they would usually have some sweepers on their roster.

Today most of the suburban and interurban lines have gone, and most of the street car lines that remain rely on city street-clearing the same as other vehicles. But for well over half a century plows and sweepers on electric lines were an important part of winter in Canada. This issue of Canadian Rail attempts to re-capture the sights of that now gone era, and show how snow was cleared in the days before the use of salt, calcium chloride, snowblowers, and other late-20th century methods of snow removal.



AN ELECTRIC SWEEPER built for Saint John N.B. in 1894.
Public Archives of Canada L 3264.



A VIVID ACTION SHOT of Ottawa sweeper No. 1 taken in January 1892. This is probably the earliest photo of a sweeper in action in Canada, and must have been taken under difficult conditions considering the bulky camera equipment in use at that time.

Public Archives of Canada PA-8420.



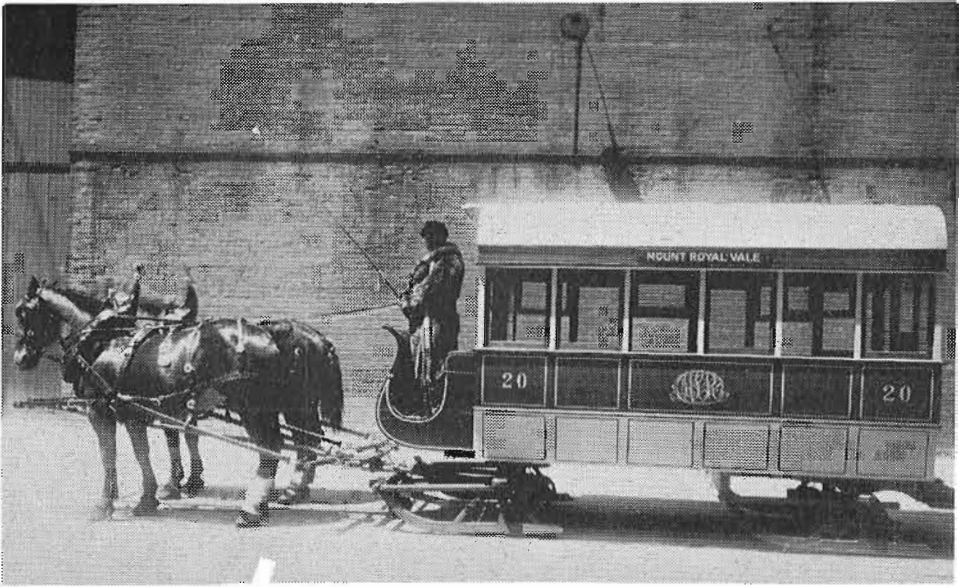
ANOTHER EARLY OTTAWA CAR, No. 17 surrounded by snow banks about 1892. This is one of the earlier cars which has had the vestibules added, probably the first winter. Note the canvas hung at the side to protect the motors from slush.

Public Archives of Canada PA 33927.



IN THE SHADOW OF THE PARLIAMENT BUILDINGS Ottawa Electric Railway car 44 makes its way along a snow-covered street in the early 1890's. This car was one of the earliest built with permanent vestibules, and cars of this type (all built by Ottawa) were used in several Canadian cities in the 1890's.

Public Archives of Canada PA 8843.

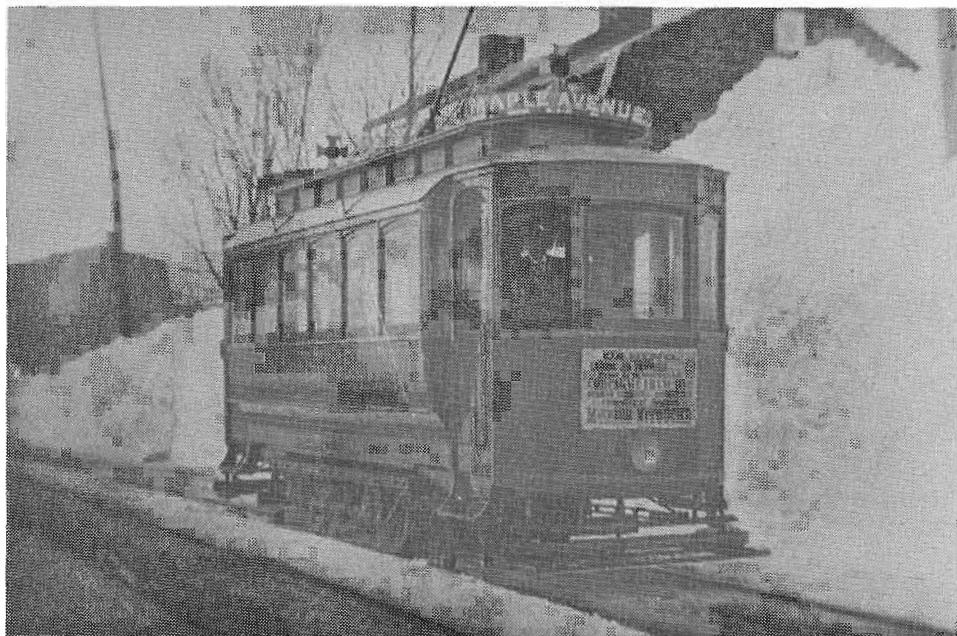


IN THE HORSE CAR ERA the tracks were often abandoned during the winter and sleighs were used. This one ran in Montreal from about 1875 until 1893 when year-round electric operation took over. This sleigh has been preserved, and this posed photo was taken as late as June 1927, long after this unit had been retired.



ANOTHER RELIC OF THE HORSE CAR ERA to survive is Ottawa City Passenger Railway car 4. Ottawa also used sleighs in winter, but this shows a regular horse car as it would appear during early-winter or early-spring operation. However this photo was taken much later as can be seen by the absence of a truck under the car,

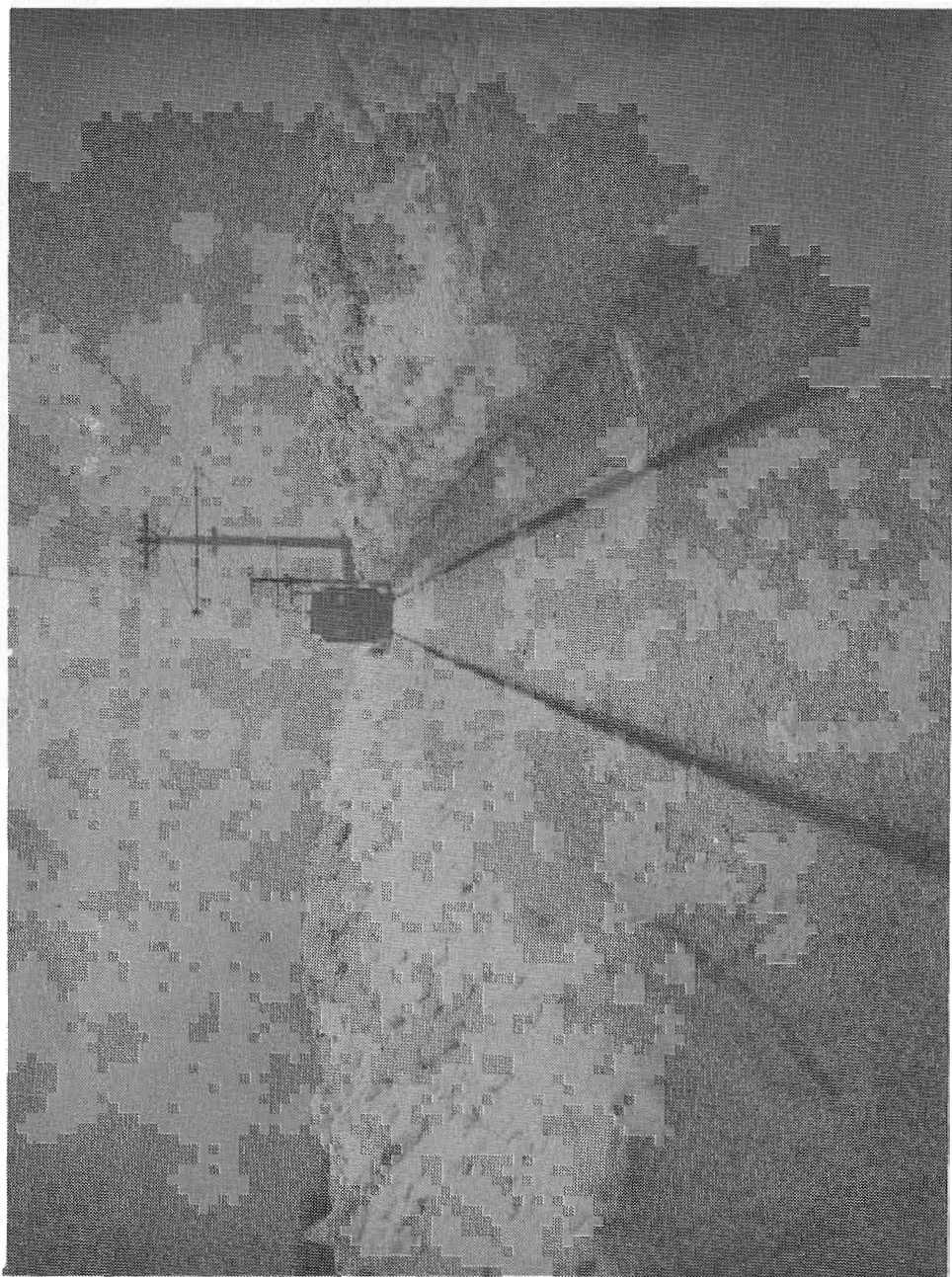
Public Archives of Canada C 2458.



THE SNOW BANKS ARE HIGHER THAN THE CAR in this view of Quebec District Railway (Quebec City) car No. 36 on February 26 1898. The car is almost identical to Ottawa car 44. Similar cars also ran in Saint John N.B.
Collection of Stephen D. Maguire.

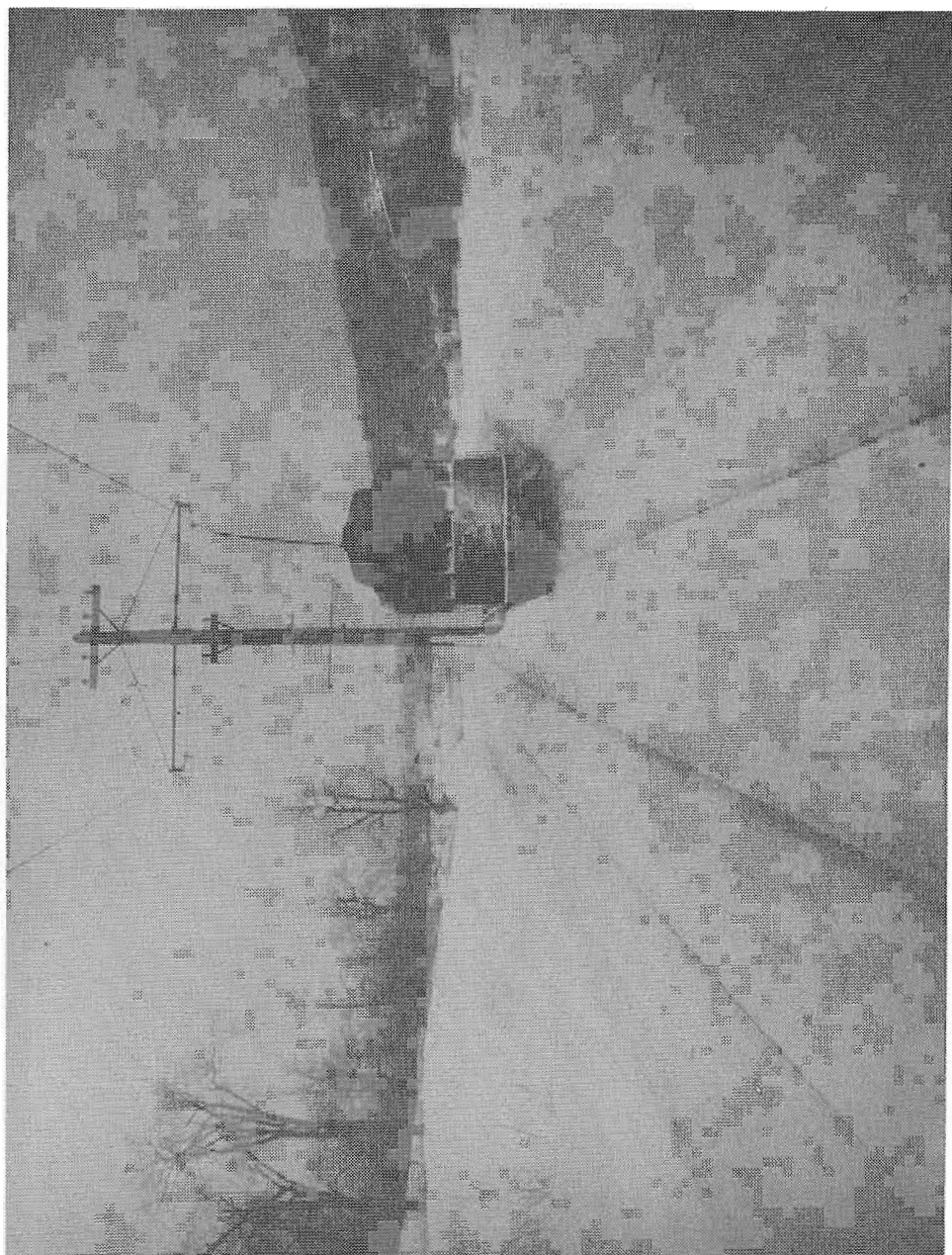


RUE ESPLANADE, Quebec City in the 1890's. Sweeper 4 has just passed through a large drift as local youngsters look on.
Public Archives of Canada PA 31907.



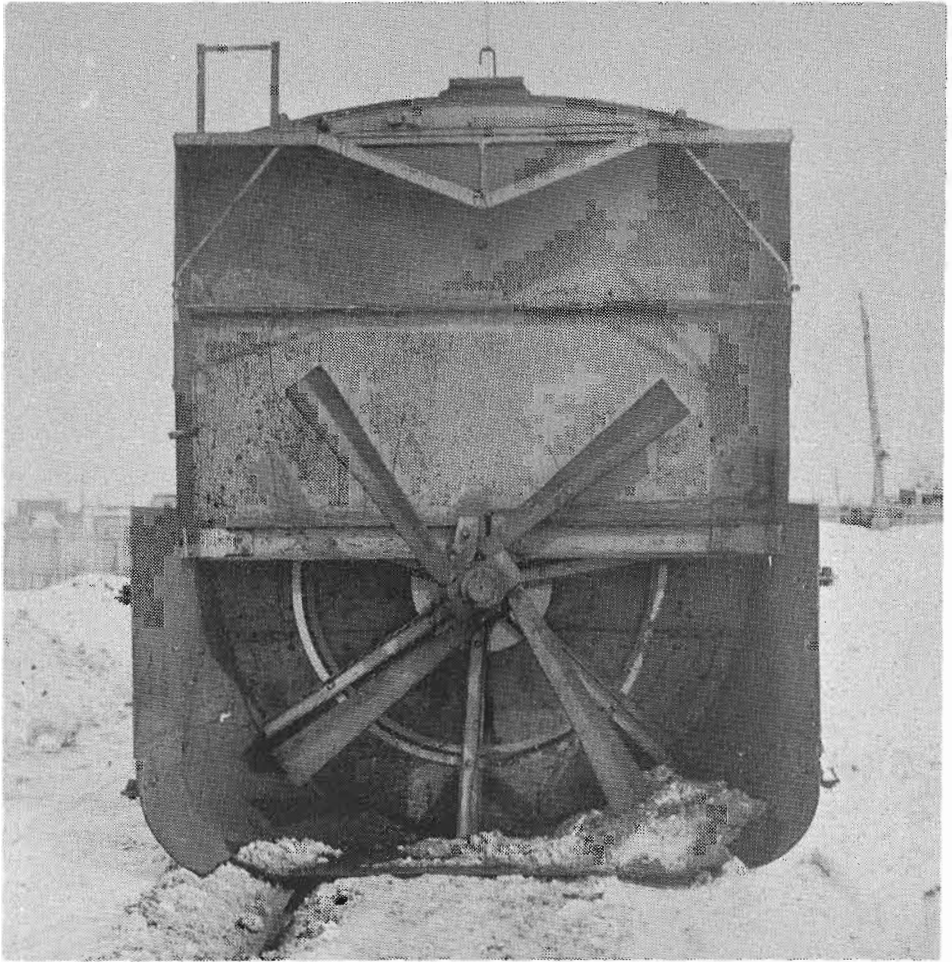
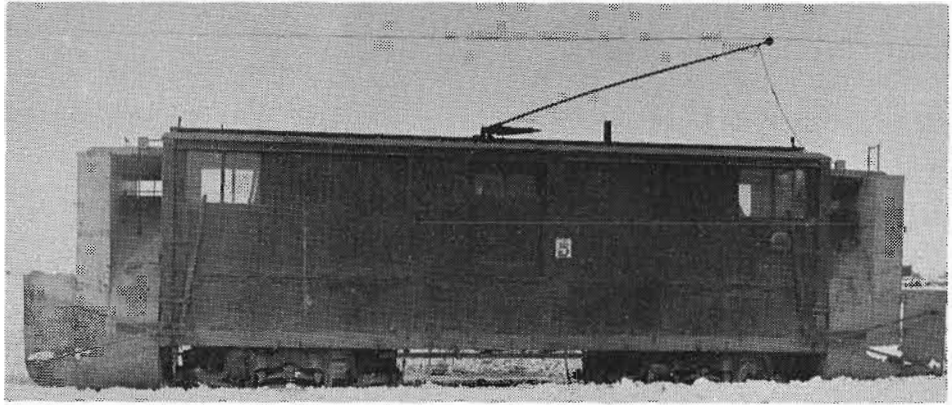
A TYPICAL WINTER SCENE ON AN OUTLYING SUBURBAN LINE, this photo is titled "An exposed street $\frac{1}{2}$ mile from Westmount", and was taken on February 21 1904. The location is the Montreal Park & Island line on what is now Girouard Ave. and the car is M.P.& I. No. 1014, a single-truck car built in 1896.

C.R.H.A. Archives.

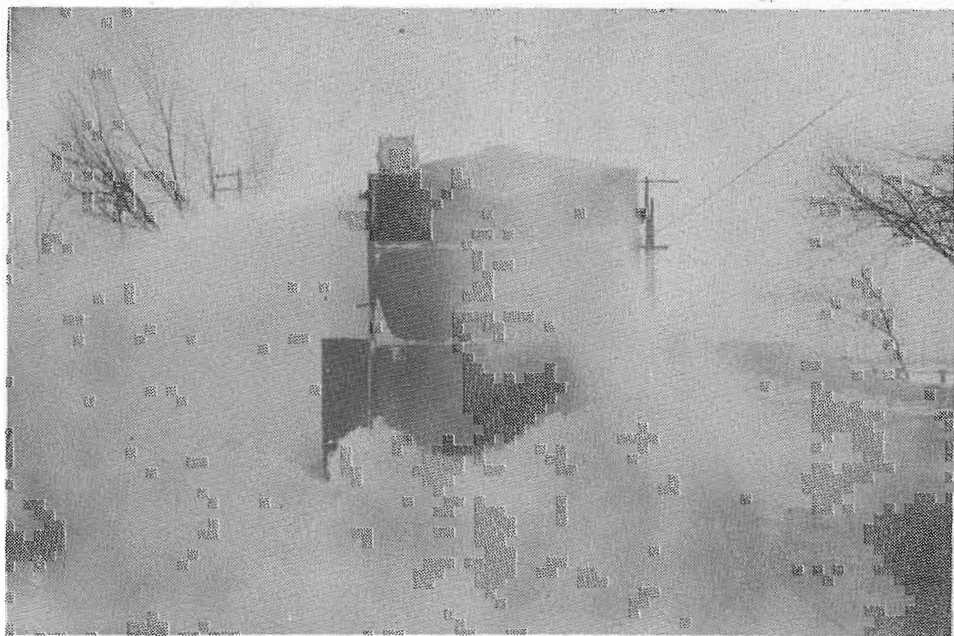


A MONTREAL PARK AND ISLAND CAR of the 1032-class passing through Outremont on the "Around the Mountain" line in 1904. The snow was five feet deep on either side, and there were two tracks to keep clear. The big "1032's" could easily get through once the plows had broken the trail.

C.R.H.A. Archives.



TWO VIEWS OF MONTREAL TRAMWAYS ROTARY PLOW No. 5, taken at the De Fleurimont snow dump in March 1916. Built in 1910, this was one of two double-truck rotaries in Montreal, and it has been preserved. C.R.H.A. Archives.



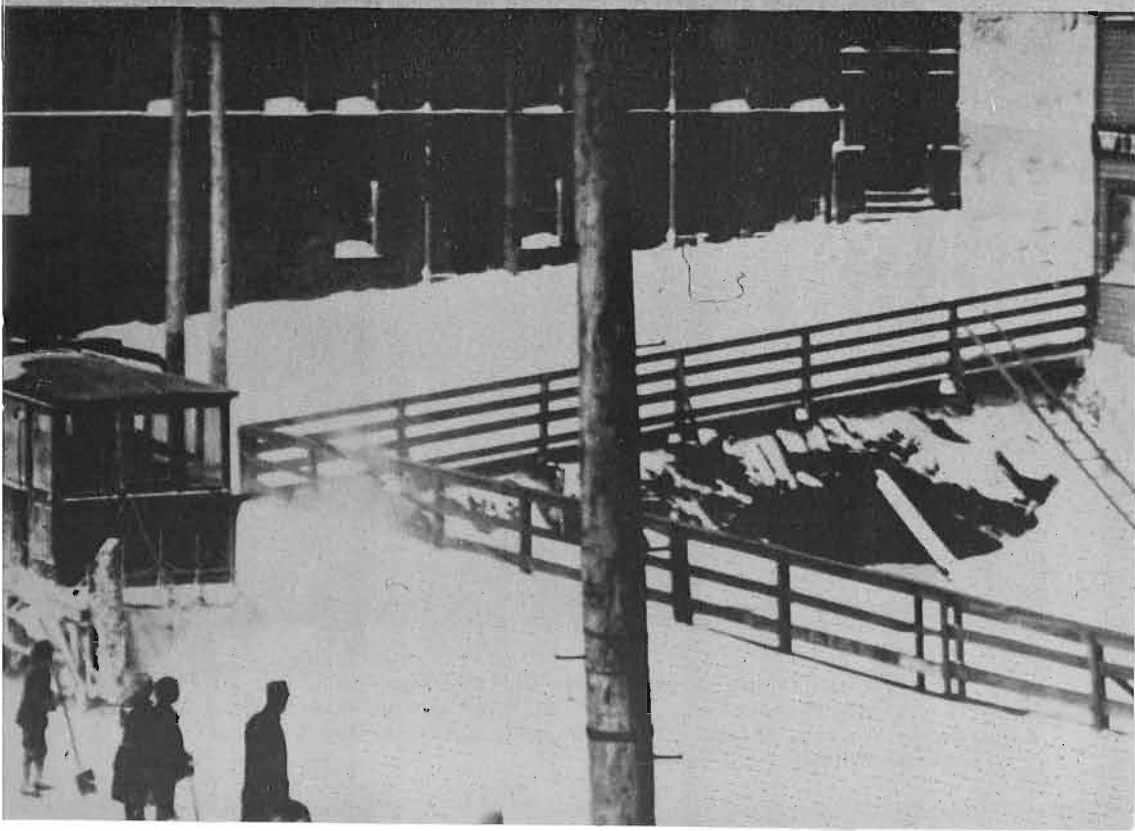
ELECTRIC RAILWAY ROTARIES must have been almost as impressive as their steam-driven counterparts, as these two views, taken on Montreal's suburban lines, show.

C.R.H.A. Archives.

TWO QUITE DIFFERENT VIEWS OF SNOW CLEARING on electric lines are shown here. The upper view is of a Quebec Railway Light and Power interurban car running on the Montmorency subdivision making the snow fly from the big plow mounted on the front (the car is running from right to left). The lower view was taken on Prince William Street in Saint John N.B. about 1910 and shows a sweeper aided by a crew with shovels.

Lower photo courtesy of New Brunswick Museum,



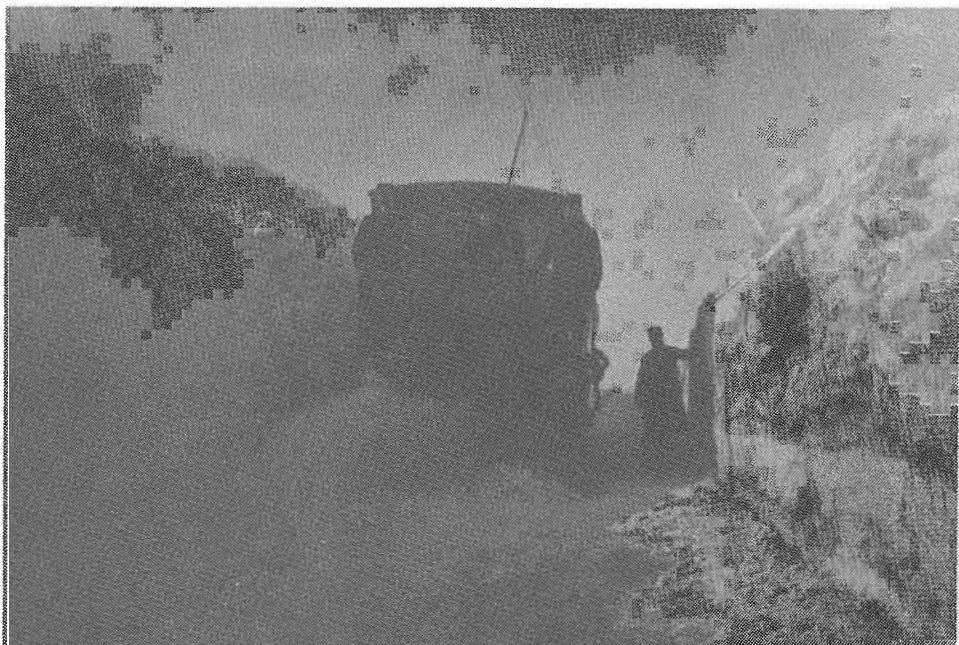




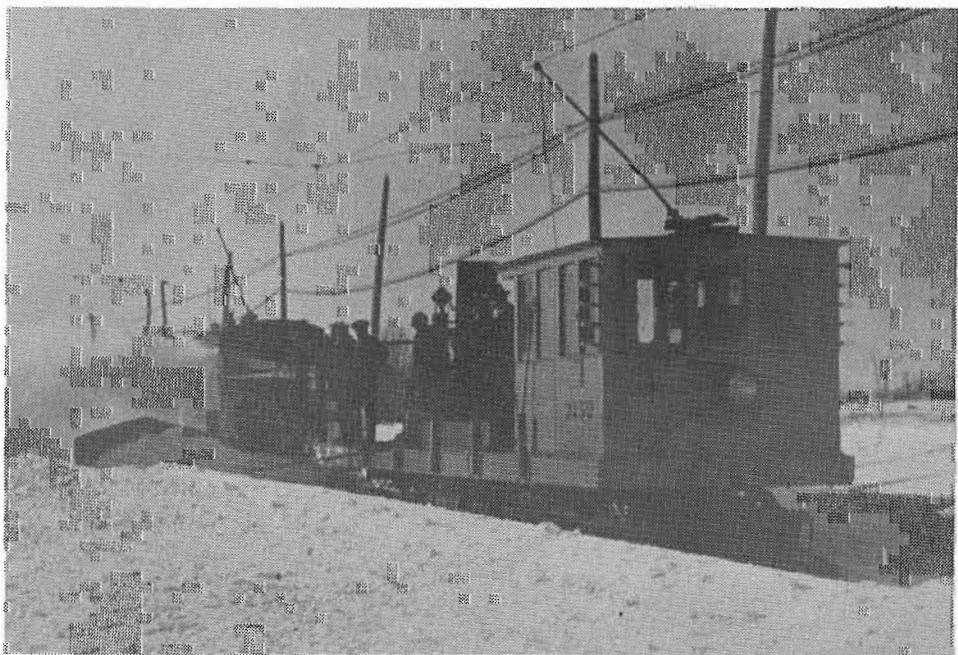
MONTREAL PARK AND ISLAND RAILWAY CAR 1030 on the Back River line in 1904. This was a double-truck car built in 1897 and later modified with larger platforms. The snow is about four feet deep on both sides.
C.R.H.A. Archives.



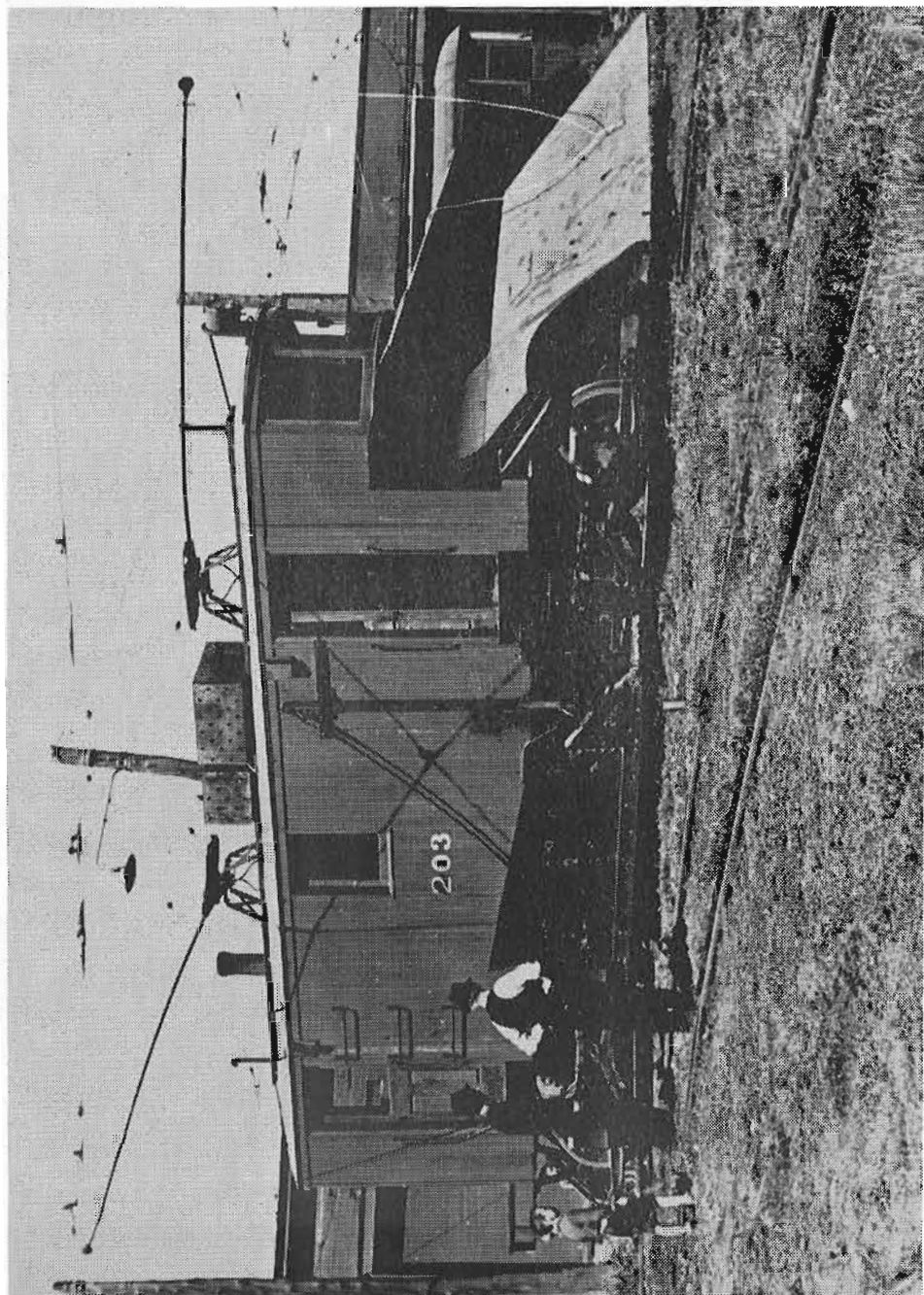
SNOWDON JUNCTION IN 1904 showing a 1032-class car about to leave for Cartierville, and single-trucker 1014 bound for Victoria Avenue.
C.R.H.A. Archives.



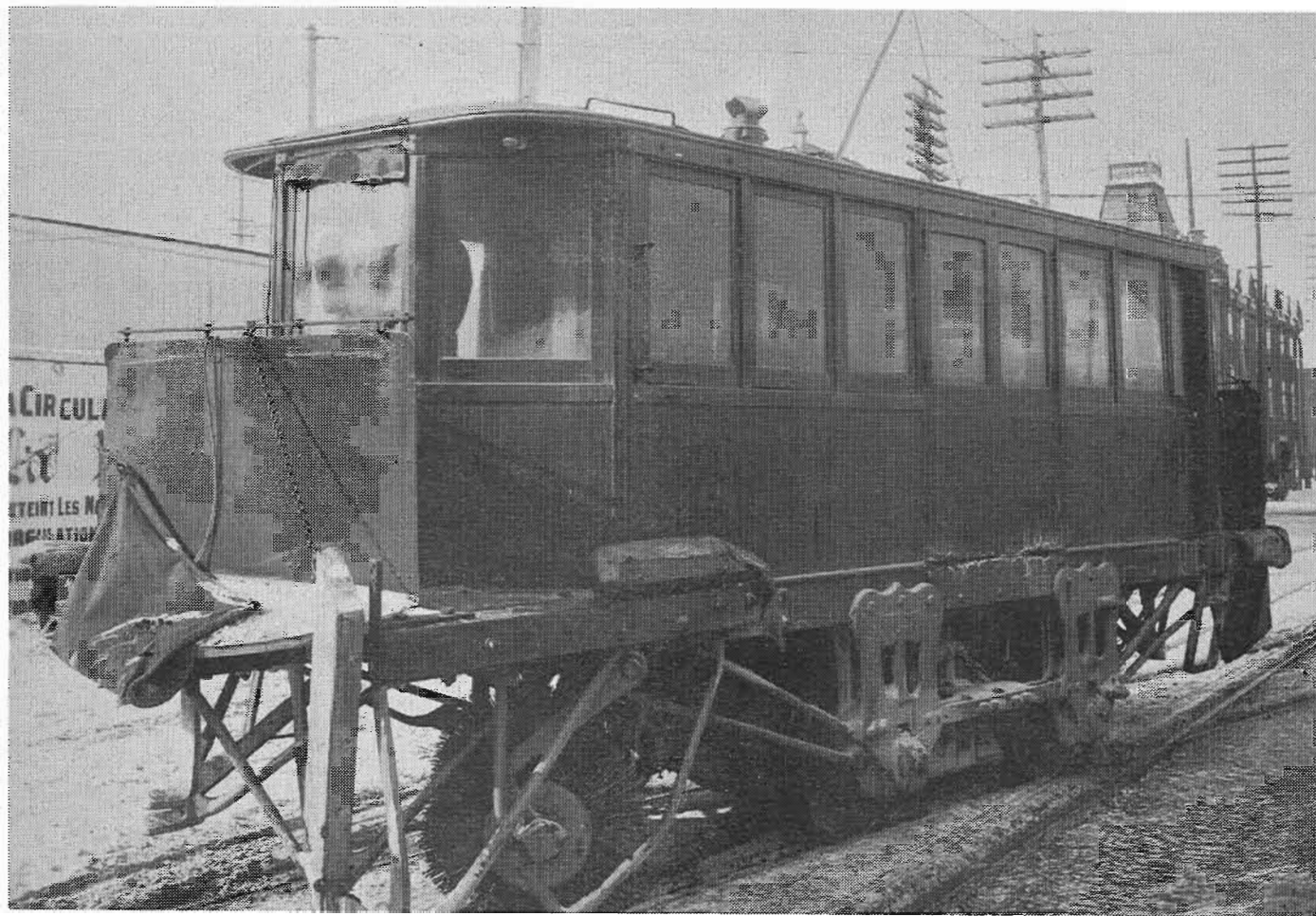
ON DAVIDSON STREET ON FEB 20 1904, a sweeper clears snow from a cutting which was previously cut through by a rotary plow. The snow is almost as high as the car.
C.R.H.A. Archives.

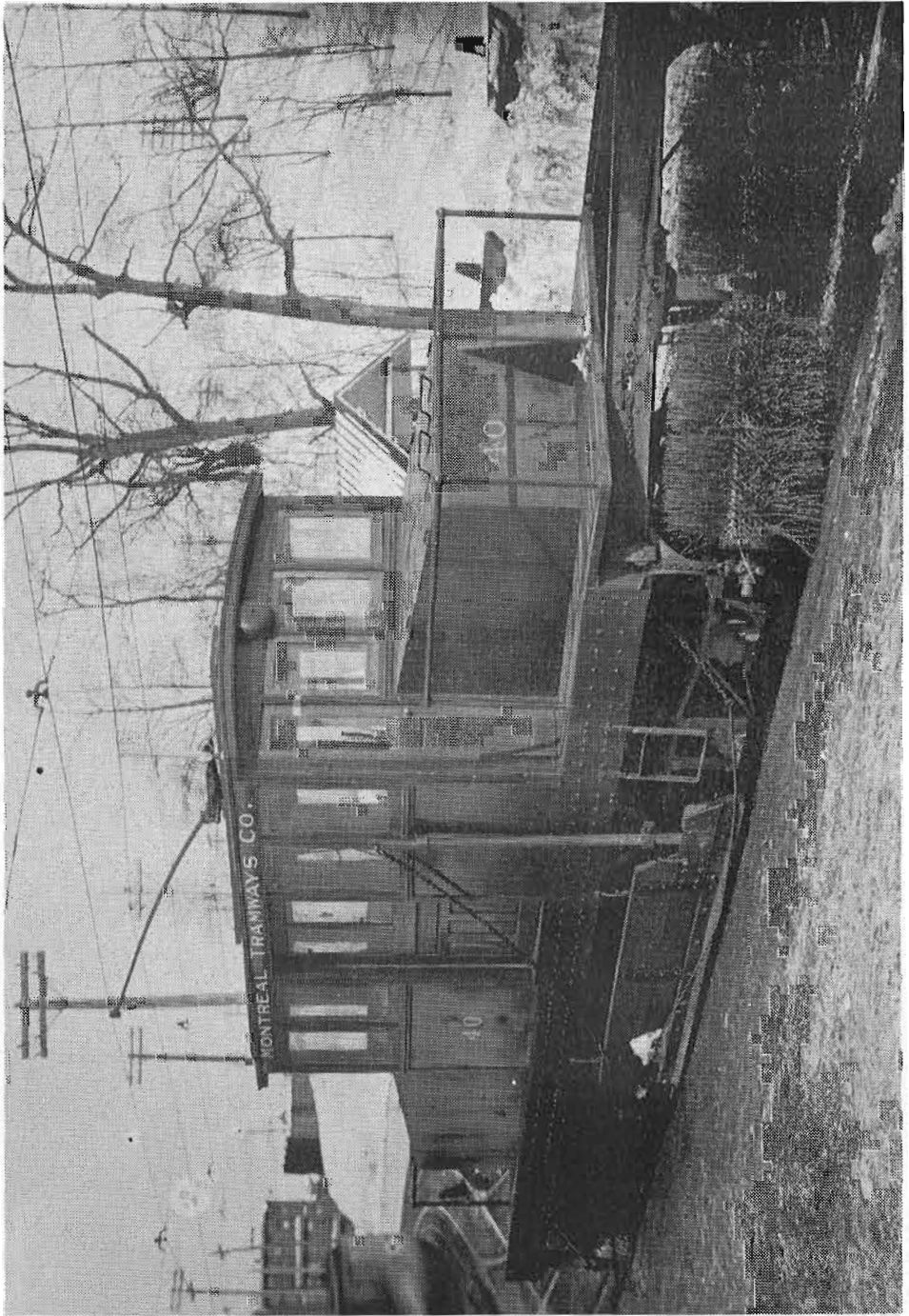


BOTH ROTARY AND WING PLOW were in use in this view taken on a Montreal suburban line in 1927.
C.R.H.A. Archives.



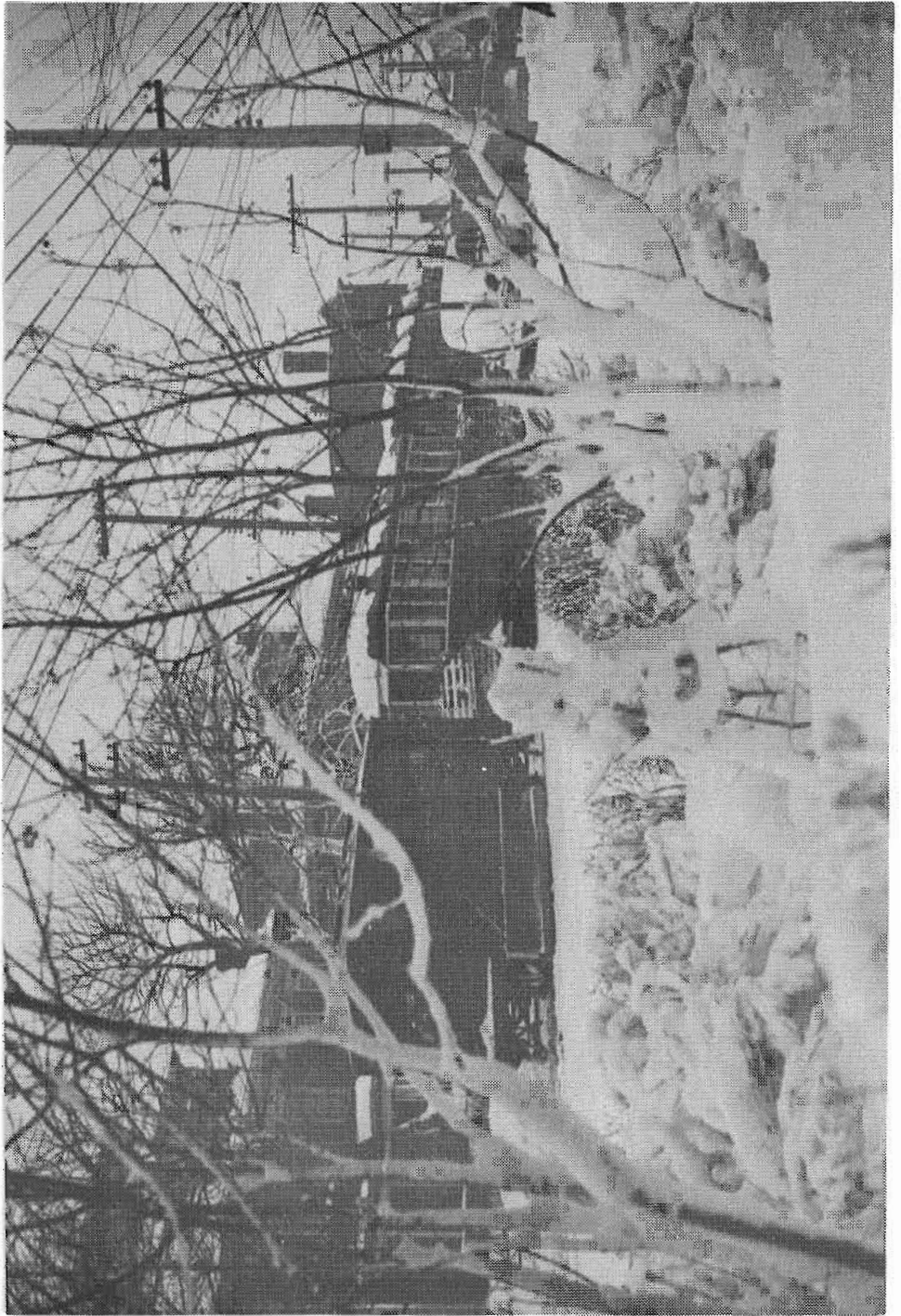
EVEN CITY SYSTEMS HAD BIG RAILROAD-TYPE PLOWS as we see in this photo of Quebec City plow 203. Note the resistors on the roof of the car.





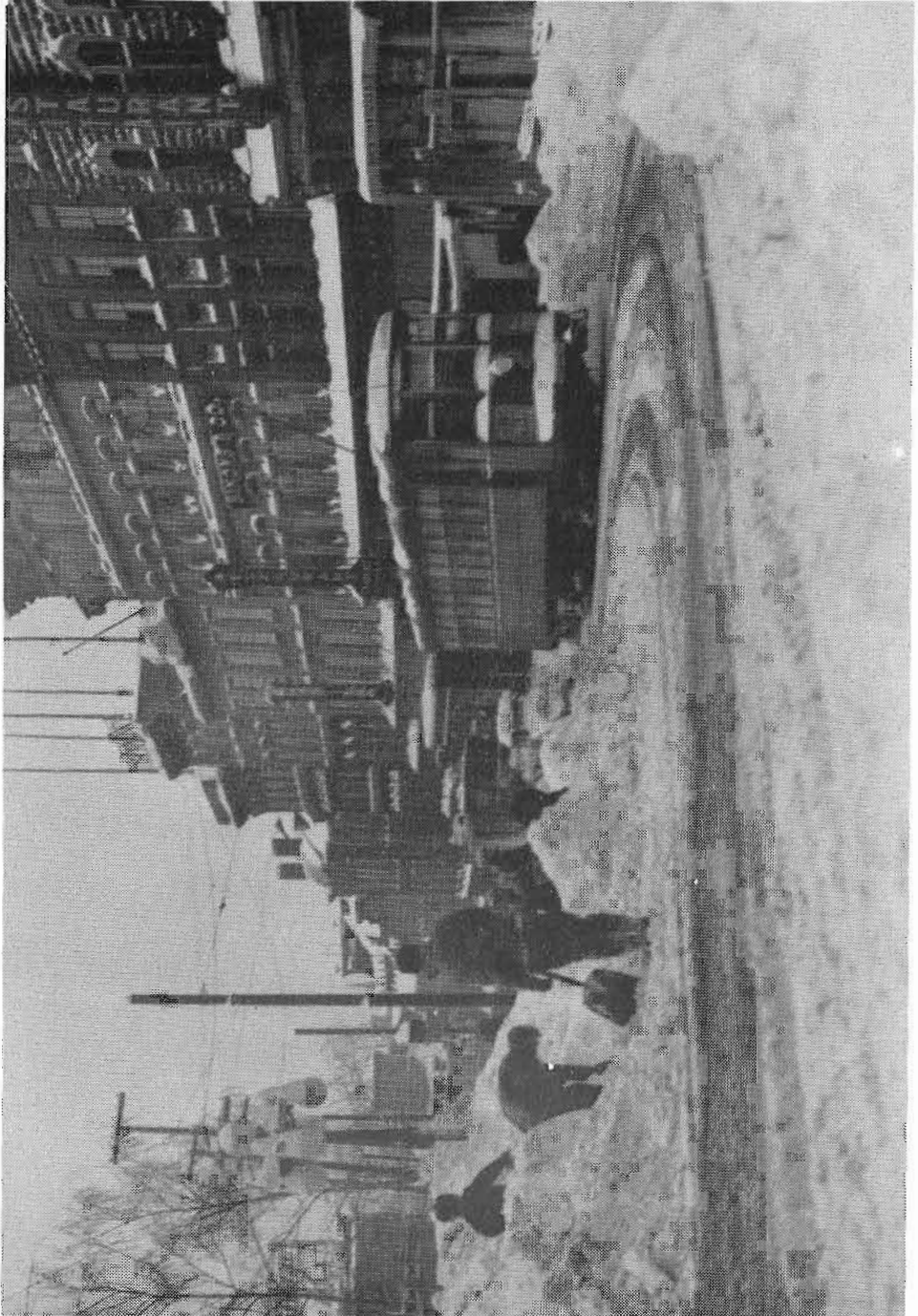
CLOSE-UP VIEWS OF TWO DIFFERENT MONTREAL SWEEPERS both taken around 1910. One shows a conventional sweeper while the other is of a large heavy-duty unit closely resembling an electric locomotive.
C.R.H.A. Archives.





AFTER THE SNOW STOPPED FALLING the results could be quite picturesque. One scene was taken in Ottawa about 1910 as a single-truck car passes across the street intersection. The other one is on Douglas Avenue in Saint John N.B. about 1937 and shows a plow closely followed by two street cars while snow covers all the trees.

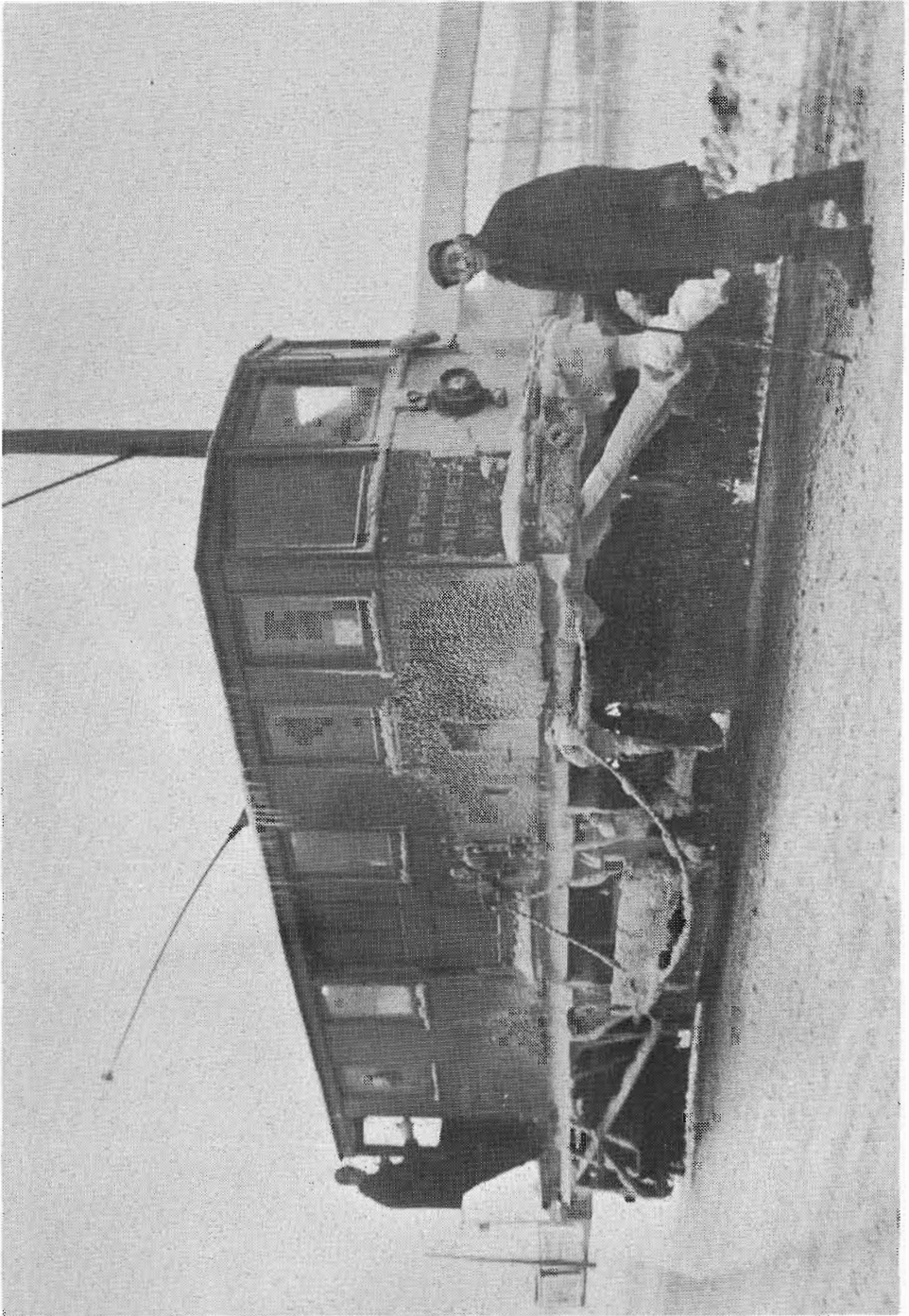
Ottawa photo: Public Archives of Canada PA 44940.
Saint John photo: R.D. Thomas.



AFTER A HEAVY STORM IN QUEBEC CITY crews are clearing the street while a street car follows a sweeper down the hill. This photo dates from the 1940's not long before the end of service.



THE MONTREAL AND SOUTHERN COUNTIES RAILWAY is usually remembered for its interurban lines; however they also had the line to Montreal South which ran on city streets. These two photos were taken on Jan. 6 1951, and show sweeper 303 busily at work on Desaulniers Blvd. in St. Lambert.
Toohey Collection, C.R.H.A.



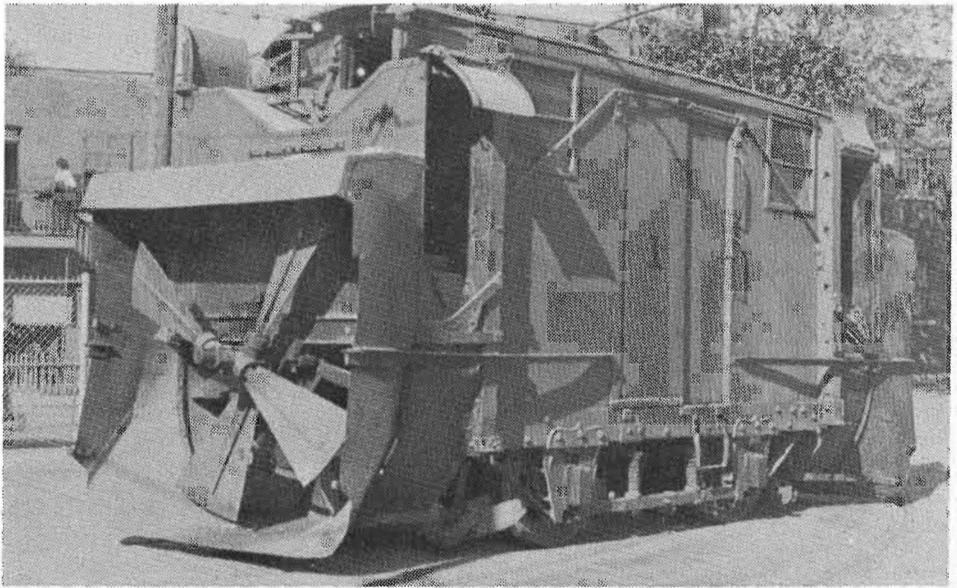
NEW BRUNSWICK POWER COMPANY SWEEPER No. 4 at West Saint John in the heavy storm of December 26 1947. This storm, one of the worst of the century, was the last big one for the sweepers, as the Saint John system closed down in 1948.

Fred Stephens Collection.

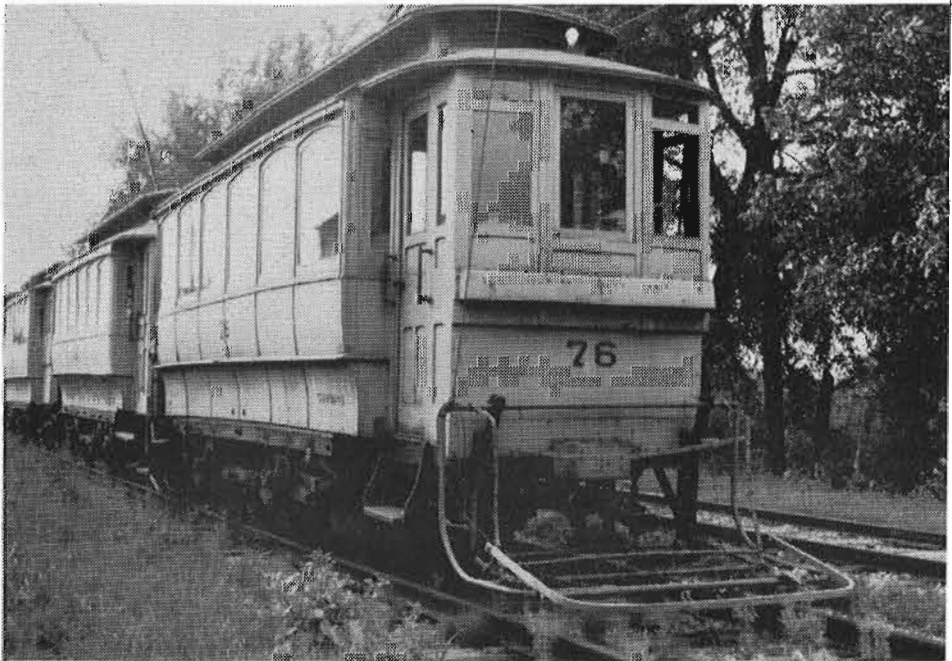


AS LATE AS 1940 THE STREET CAR WAS STILL THE TRAIL BREAKER as is evident in these two photos taken on outlying lines in Saint John N.B. Car 150 is a former open car rebuilt in 1925, while No. 122 was built in Tillsonburg Ontario in 1914.

Both photos courtesy New Brunswick Museum.

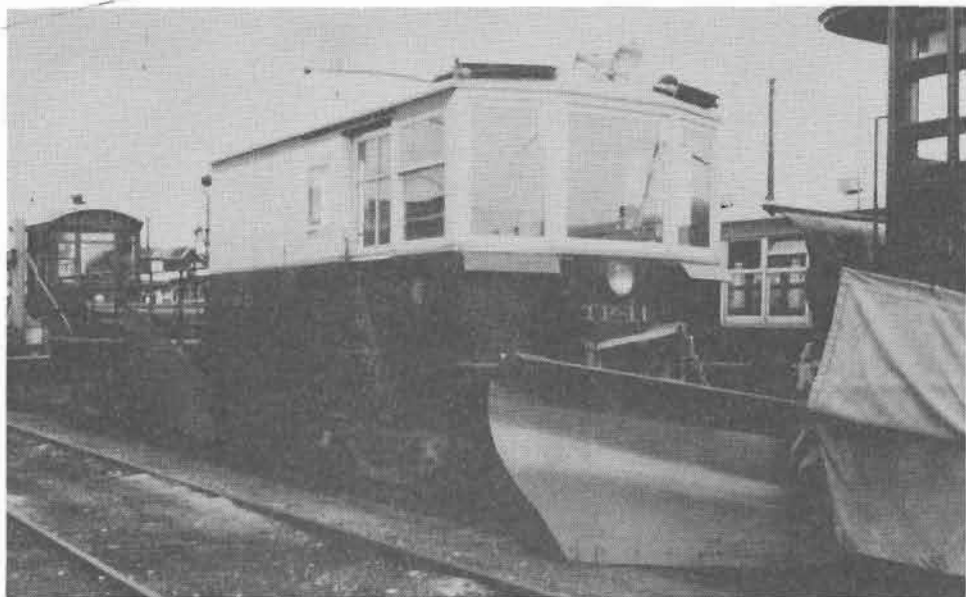


SOME OF MONTREAL'S ROTARIES WERE AROUND FOR MANY YEARS although not often used in later days. Rotary No. 1 was built in 1899, and is here seen at the Mount Royal car barn in 1949. It was scrapped soon after.
Toohey Collection, C.R.H.A.



TO MELT ICE AT SWITCHES AND SPECIAL WORK salt was used and carried on cars converted from passenger street cars of the 1890's. Four of these old cars appear in this photo taken at Youville shops on August 7 1948. Soon replaced by newer equipment, all were scrapped except No. 274 (second from front in this view) which became the first car preserved by the C.R.H.A.

Toohey Collection, C.R.H.A.



TORONTO PLOW TP-11 and MONTREAL PLOW 108 exemplify the last stages of street car snow plow development in Canada. Both date from the 1940's and were home-built. Montreal's units ran until the end of service in 1959, and Toronto's were retired in the late 1970's when rubber-tired equipment took over the job of clearing snow from streets, even those which had street cars.

Toohey Collection, C.R.H.A.

BACK COVER.

A HEAVY STEEL SUBURBAN CAR of the Montreal Tramways Co. No. 1055, has a big plow mounted ahead of it. Such cars could keep the line clear in between passes of sweepers or plows. 1055 was built in 1911 and survived only until 1925.

C.R.H.A. Archives.



CARTERVILLE

1055

1055