

Canadian Rail



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CARS OF THE WINNIPEG ELECTRIC RAILWAY 1904 - 1955

George Harris

Editor's note: CANADIAN RAIL is very pleased to present part II of the story of Winnipeg Electric Railway's street cars, the first part of which was published in the July-August issue (no. 212).

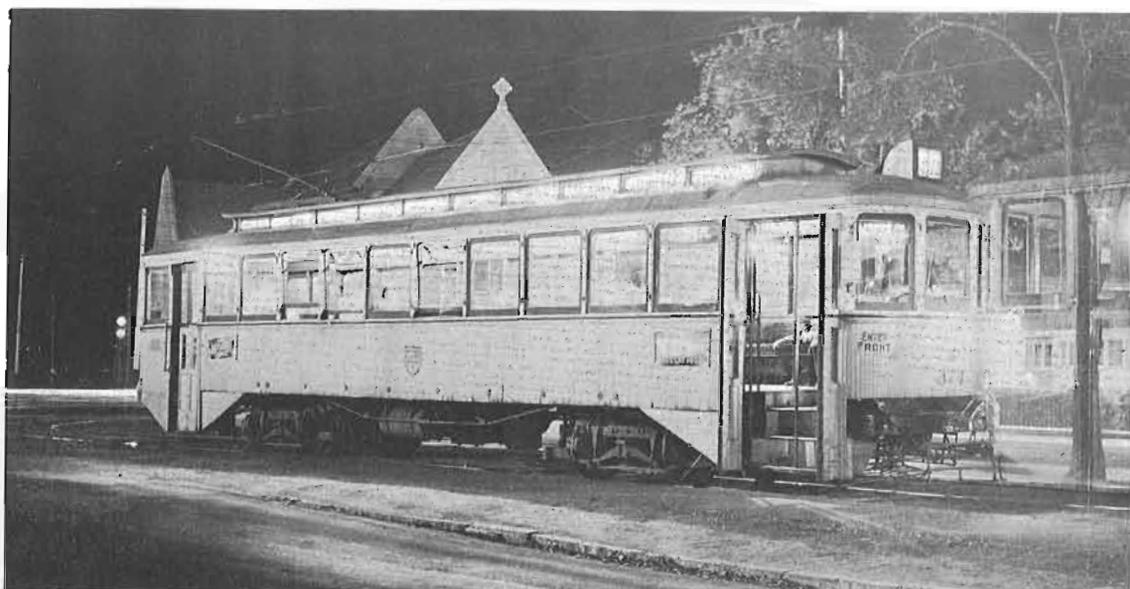
Along in the early years of the century, it was decided by the Winnipeg Electric Railway Company that it would be more profitable to develop a "home building" programme. There were several reasons for this. Winnipeg's comparatively isolated position made it very expensive to ship in cars and parts from the factories of established street car builders in the east. Rather loosely-defined labor laws allowed a good deal of leeway in the employment of help in the off-season. Another factor was the extreme in temperature reached during prairie winters. Cars needed to be rather specially built to withstand such severe cold.

Apparently, a study was made of the cars already imported and a design was adopted utilizing features from both the Ottawa and Toronto types of cars. It is possible, too, that emissaries were sent to observe the car-building programme of the Twin Cities Transit (Minneapolis-St. Paul, Minn.), as the Minneapolis car shops had been building cold-climate cars successfully since 1899.



← W.E.Co. Sweeper no. 9, turning the corner of Kelvin-Johnson streets, on a cold day in January, 1950
Photo courtesy Geo. Harris.

↪ 47-foot motor car ("Peter Witt") of December, 1922, produced at the Montréal Works of the Canadian Car & Foundry Company for the Toronto Transportation Commission.
C.R.H.A. Archives.



↑ Morse Place car, waiting at the end of its run, at Broadway and Osborne in December, 1950. Photo Stan Styles: Geo. Harris Collection.



There is a little doubt as to where the first few "home built" cars were assembled, but it was probably at the Main Street Barn. The very first lot were a series of double-truck, open cars and this would have been mainly an assembly of parts. The record states that the actual shops were not in use until 1906. There had been a considerable acreage acquired in South Winnipeg, adjacent to the Canadian Northern Railway yards and it was on this property that the permanent shops and the big South Barn were erected. It was here that future car-building and heavy repairs were done until nearly the end of the street car era.

The first two cars built from scratch were a pair of suburbans for the Headingly line. They were good-sized wooden combines, built extra-wide and with rattan cross-seats. These were closely followed by a series of 9-window cars, similar in pattern to the double-end, double-truck cars already in hand from Toronto and Ottawa.

The materials used in the general car structure were oak or B.C. fir underframes, with ash posts and braces. The interior was finished in maple or birch, with cherry used as a finishing sheathing on the outside. There was some variation through the years, as some woods became rather scarce as time went on.

Like most city transit systems that became "home builders", the Winnipeg Electric developed a "classic" design before long. However, this was not before cars were extended to a length of 10 windows and 44-seated passenger capacity. It was very soon decided to drop the double-end style of car. The typical car was 45 feet 4 inches long, over bumpers, with a deep rear vestibule and a short front one. At first, the rear vestibule or platform was open to the loading side, with a vertical and horizontal pipe arrangement, to act as a guide for incoming and outgoing passengers. On this platform the

conductor took his stand, while passing through the heavy loading areas of downtown Winnipeg. Indeed a cold spot in winter, the motorman's vestibule was separated from the main body of the car by a sliding door, as was the rear vestibule. In the front compartment or motorman's vestibule were of course the operating controls and the Baker heater, with its coal hopper. This essential apparatus heated the car through ducts under the side seats. All city cars had long side-seats and were first built for two-man operation.

It was not until the "Pay As You Enter" (PAYE) system was adopted in 1913-14 that the rear vestibules were actually closed in by wooden doors or gates. These were manually operated by the conductor, who sat or stood by the farebox. It is worth remarking here that cars from 658 to 692 were actually built for PAYE operation, and had a rather extended front vestibule and included a front exit door, operated by the motorman. It was not until the later '20s that many cars were converted to one-man operation. At this time air-operated doors and treadles were installed. Another conversion that some of these cars underwent was remounting on 26-inch wheels, making them low-floor vehicles. This occurred in 1919-1920.

It would be neater to be able to state that all cars were equipped with Brill trucks, as the greater number actually were. However, there were a considerable number of the earlier ones with Curtis trucks and there were quite a few Baldwin & McGuire-Cummings trucks used. The standard wheel diameter was 33 inches and

↓ This car was the first of 20, bought from the Minneapolis, Minn. system, to replace cars lost in the 1920 carbarn fire. These were surplus to the Twin Cities Rapid Transit Company, at that time. Only the bodies were purchased.

Photo courtesy Geo. Harris.



W.E.C.O.

NUMBER RANGE.	UNITS	BLDR # DATE	TRUCK MAKE	NO OF TRUCKS	CLOSED OR OPEN	SINGLE OR DOUBLE END	ROOF TYPE
2 - 20	10	P&CC-92	MONTREAL	S-T,	CL	DE.	R-R & DD
22 - 28	4	OTTAWA-'93	"	"	"	"	DECK
30 - 38	5	T.R.C-93	CURTIS	"	OP.	S-E	"
40 - 50	6	TORONTO	"	"	CL.	DE	R.R.
52 - 86	18	T.R.C-'93-'01	CURT & MONT.	"	"	"	DECK
88 - 94	4	" '01-'03	CURTIS	"	OP.	S-E	"
96 - 106	6	" 1903	PECKHAM	"	CL	DE	"
108 - 118	6	" '03-'04	CURTIS - LT	D.T.	"	"	"
120 - 128	5	W.E.C 1904.	" HVY	"	OP.	S-E.	"
130 - 152	11	T.R.C & OTT. '04-'05	CURTIS - LT	"	CL	DE.	"
154 - 156	2	W.E.C '04	BRILL	"	"	DE	RR
158 - 160	2	"	CURTIS HVY	"	OP.	SE	DECK
162 - 184	12	OTTAWA '05	" LT	"	CL	DE	"
186 - 208	12	W.E.C '06	" "	"	"	"	"
210 - 212	2	" '07	" "	"	"	SE	"
214 - 218	3	" "	" "	"	"	"	"
220 - 232	7	T-R-C '06	" "	"	"	DE	"
234 - 244	6	OTTAWA "	" "	"	"	"	"
246 - 298	27	W.E.C '07 '09	" "	"	"	S-E	"
300 - 338	20	OTTAWA '07 '08	" "	"	"	"	"
340 - 348	5	W.E.C '09	" "	"	"	"	"
350 - 692	169	W.E.C '09 '14	BRILL	"	"	"	"
482 - 484	2	" '11	CURTIS-HVY	"	OPEN	"	"
700 - 738	20	OTTAWA '18	MSGUIRE	D-T	CL	S-E	ARCH
796	1	WERY '28	CUMMINGS	"	"	"	"
798	1	" '29	BRILL	"	"	"	"
800 - 838	20	T-C-R-T '00	MEG. CUMM.	"	"	"	D. DECK
1000 - 1008	5	CAN CAR '21	BRILL 79E	S-T	"	D-E	ARCH
1200 - 1212	7	VARIED	BRILL	D-T	"	"	DECK
1400 - 1442	22	"	"	"	"	"	"
501 - 521	11	"	CURTIS - LT	"	"	SE	"
1 - 19	10	TORONTO BY 1892	---	S-T	OPEN	"	"
21 - 29	5	O.C.C '93	---	"	"	"	"

SERVICE EQUIP'T.

NO #	1	S-T LINE CAR LOST IN APRIL 1920 CAR BARN FIRE.
1	1	S-T SWEEPER USED LATTERLY ON SELKIRK LINE.

ROSTER

CAR'S
PERSONS

DETAIL.

26	ONLY 6 WINDOWS LONG - PANEL SIDES - SLIGHTLY ROUNDED ENDS.
"	3 SIDED ENDS - LARGER VEST.
60	RUNNING BOARDS - BOTH SIDES.
30	7 WIND. LONG - 3 SIDED ENDS.
30	7 " " VERT. STRIP SIDING - BECAME STANDARD S-T CARS.
60	LAST OF S-T. OPENS.
30	" " " CLOSED CARS.
38	9 WIND. LONG. - 3 SIDED ENDS.
72	FIRST CARS BLT. IN FORT ROUGE SHOPS - MAINLY ASSEMBLY.
38	9 WINDOWS - ROUND END VEST.
36	HOME BLT HIGH SPEED SUBURBAN COMBINES FOR HEADINGLY RUN.
72	SAME AS 120-128
38	" " 130-152
"	" " " # 200 REBUILT AS INST. CAR.
"	FIRST BLT LONGER REAR VEST. & SINGLE END CARS.
"	AS ABOVE, ONLY BLT 1 FT WIDER TO GIVE MORE STANDEE RM.
"	REVERSION TO NARROW DOUBLE ENDER -
"	AS ABOVE. - LAST OF TYPE.
"	SIMILAR TO 214-218
"	" " "
"	" " " FIRST "POWER" CARS FOR TRAILERS.
44	BECAME STANDARD WPG 10 WINDOWED CARS.
82	LAST OPENS - BLT WITH CENTRE CORRIDOR & FOOTBOARDS.
42	ALL STEEL CONST. BOTH CROSS & SIDE SEATS.
50	SIMILAR TO ABOVE - STEEL SHEATHED ONLY
66	TOO LONG FOR AVERAGE CURVES - 53'6"
42	IMPORTED AFTER CAR BARN FIRE - NOTRUCKS..
34	BLT TO BIRNEY PAT. FOR STUB LINES ONLY 10 YR. USE
36	OUT OF SERVICE DE CARS REB C9 SHOPS 1924 FOR SUBURBAN USE
30	" " " " 1925 " STUB LINE
38	" " " " 1918 RUSH HR TRAILERS
30	OPEN TRAILERS - SOLD TO BRANDON STRY - 1913
30	" " - SCRAPPED 1914.

BUILDERS

CARS LOST IN 1920 FIRE.

P & C CO
PATTERSON & CORBIN.
ST CATH. ONT

OLD S-T LINE CAR, NO N^o
SWEEPERS - 2.3.4.5.6

2-9	8	"	MC GUIRE-CUMMINGS SWEEPERS, 2-6 LOST IN 1920 FIRE.		
10	1	D-T	SWEEPER-CURTIS HEAVY TRUCKS		
11-16	6	S-T	" -ALL BUT 16 REBUILT FROM 2-6.		
18	1	D-T	ROTARY-BLADES BOTH ENDS.		
19	1	D-T	D-E SPRINKLER.		
22	1	"	MOTOR FLAT CAR		
24	1	"	" WITH PLOW & SPREADER.		
38	1	"	DERRICK "		
48	1	"	REPAIR & LINE "		
58	1	"	STEEPLE CAB GAS WORKS LOCO		
60	1	S-T	RAIL GRINDER - EX PASS. CAR - ORIG. NO RETAINED		
116-118	2	D-T	SAND CARS	"	"
184	1	"	WRECK CAR	"	"
200	1	"	D-E REB AS INST. CAR WITH PASS CAR ROOF -(HEADINGLY)		

there were fully one-third of the fleet always remained 2-man "high cars". This was due to the fact that the Portage Avenue-Main route was always the heaviest traffic route.

PAINT SCHEME.

I find at this stage, that my descriptive remarks would probably classify more clearly under a series of headings and so will begin under "Paint Scheme". The original colour of Winnipeg-built cars was of varnished cherrywood, with gilt numbers and trim, similar to Canadian Pacific Railway coaches of the time. World War I brought about a scarcity of cherry wood and therefore repairs and new work was done in basswood, which did not lend itself readily to a natural finish. So, imitating the C.P.R. again, a maroon paint scheme became standard. This lasted until the middle '20's.

About that time, it was observed that the maroon colour became too drab-looking too soon. So the pendulum swung the other way. As the cars came fresh from the paint shop, they were a canary yellow with cream trim and a band of light green under the window line. The yellow did not last too well, however, and soon looked smudgy and unattractive. An orange colour was tried. This proved out satisfactorily and became the basic colour for all Transit vehicles. For a time, aluminum paint was used for roofs, which combination made a very attractive unit, - bright without being garish, weathering well and being very visible in traffic.

From a safety meeting came a suggestion from an operator. With all car doors painted a maroon colour, it was hard to tell which doors belonged to which car, when a line of cars were drawn up at a loading platform or island, - that is, from the motorman's rear-

T.R.CO
 TORONTO RY CO.
 O.C.CO
 OTTAWA CAR CO
 W.E.CO
 WINNIPEG ELEC. CO
 T.C.R.T
 TWIN CITIES RAP. TRANS
 CAN. CAR. - CANADIAN CAR.

PASS. CARS - 86-106-138-150-162
 210-212-216-218-222-238
 336-368-468-492.
 524-556-582

SOLD TO FORT WILLIAM 1940

564-586-588

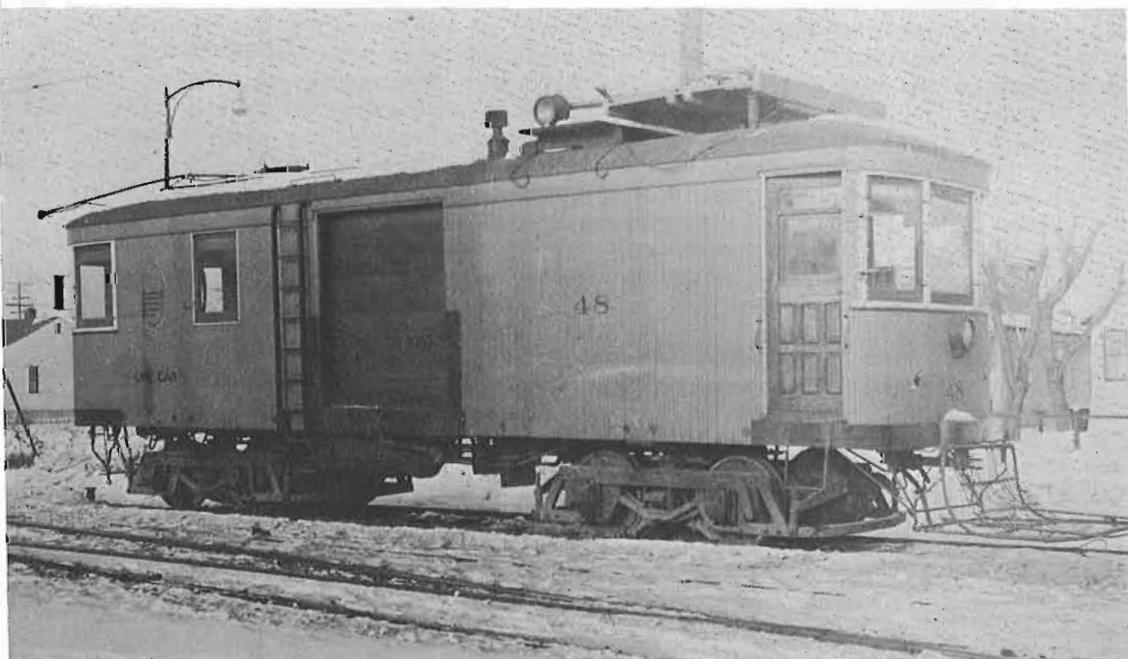
STEEL UNDERFRAME CARS

290 + 380-386, 466-476

GEO HARRIS. 6-1-76

view mirror! It was suggested that the upper half of the front doors on all cars be painted a cream colour, to provide the desired contrast.

Winnipeg Electric Line Car No. 48 in the North Car Yard on December 30, 1950. Photo courtesy Geo. Harris.





Winnipeg Electric Ottawa-built car number 734 at the corner of Kelvin and Hespeler in January, 1950. Photo courtesy Geo. Harris.



INSPECTIONS.

All cars in general use worked under a rotating inspection schedule. Using this schedule, the time factor, rather than mileage, was considered better for determining inspection periods. Every 4 days, a unit underwent a light inspection; every 8 days, a heavy inspection and every 4 years, a complete overhaul.

When a car came in at night, the Barn Superintendent had a list of those cars due for inspection. A crew of 12 men prepared it for the next day's run, taking care of the sweeping, dusting, window cleaning, etc. Mechanics went over the controller, motors, air-compressor, brake cylinders. An oiler went over motors and axles. Minor defects on report by the operator were repaired or adjusted. Heavy inspection consisted of a thorough check of car body and trucks, trolley-pole wheel and base. At the complete overhaul interval, a car would be stripped down, trucks removed, gears rejuvenated, and the body would be painted inside and out.

REBUILDS.

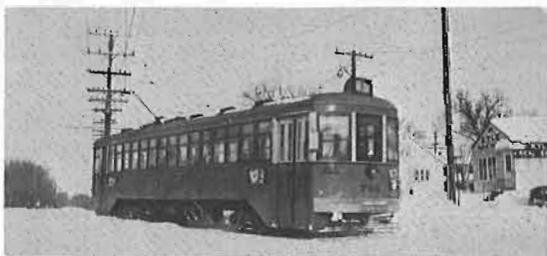
Perhaps the most consistently rebuilt class of cars on the system were the old 9-windowed, narrow, double-ended cars. These were acquired from various builders and some, even, were company-built. As time went on, they became more and more stub-line or rush-hour cars and as buses came into more common use, there were more and more of them left standing in the barn.

In 1918, eleven of these cars were mounted on light, motorless Curtis trucks and with 26-inch wheels, they became low-mounted, rush-hour trailers. Unfortunately, there were no low-mounted "power" cars

available for them at the time, so while useful enough, they made rather an insignificant appearance in the street, being pulled along by a "high mounted" car. They were eventually renumbered into a 500-odd series and saw about a decade of service.

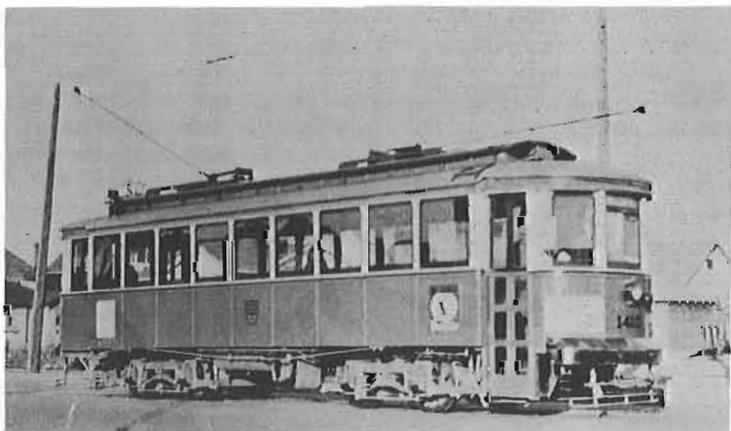
In March, 1924, another 7 were rebuilt to one-man suburban cars. They were both widened a bit and their vestibules were lengthened. They were given cross rattan seats, fitted with Brill 27G1 trucks, renumbered into a 1200-series. They saw intermittent use until the early 1930's, when they were generally displaced by buses.

→ Winnipeg Electric Company-built car no. 798 - 1928. The long car, - 53 feet 6 inches. Photo Geo. Harris.



← Car no. 106 on Broadway-1905. Last of the "Dinkeys". Built Toronto 1903. One of 18 cars destroyed in the April, 1920 car barn fire. Shows the Slemman Fender, typical of Winnipeg Electric for many years. Photo Manitoba Archives.

↓ Car no. 1410 on Arlington St. in July, 1936. Old converted double-end car. Photo Geo. Harris.



Finally, at about the same time, all of the series that remained, 22 cars - except one - were converted to one-man stub-line cars. The one exception was rebuilt and retained as the sole remaining double-end instruction car, No. 200. The others were left with side-seats, but were fitted with operator-controlled doors and were metal-sheathed at this time. They were given the same trucks and power equipment as the 1200's, but were renumbered as 1400's. Some of these veterans were standing around, - in use and out of use, as recently as right up to 1955!

CAR NO. 798 .

This car creates for me an interesting little saga of its own and somewhat worth mentioning. No. 798 was built in 1928 in the Company shops and was actually a wooden car with steel sheathing. Its appearance then was similar to other cars of the 700-series, except for its extreme length of 53 feet 6 inches. It soon proved to be a "lemon" on this account. Standard curves on the system were built for cars 45 feet long and much time was wasted in ill-chosen meets. It was also under-motored.

In addition to these drawbacks, it was found that although it would seat 66 passengers, 75% of the time only 25% of the seats were occupied. This in itself was no recommendation for building this type in large numbers. So, although No. 798 was one of the 4 cars featured on the "Last Run" occasion in September, 1955, it was never repeated. As such, Car No. 798 marked a "period" or "water-shed" in street railway transport evolution. It proved that mere "bigness" does not necessarily mean greater efficiency. It always carried a sign, placed near the control box so that it could not be overlooked by the operator - CAR LENGTH 53 FEET 6 INCHES !

In concluding this article, it would be informative to remark that, of the entire Winnipeg Electric Company roster, some 226 units or 72% were home-built. This figure does not include a dozen heavy wooden interurban cars for the "Selkirk" line or the considerable stock of service equipment. The record states that there were, during 1930-31, some 246 men, variously engaged in overhauling 101 cars in a modernization programme. One factor contributing to this figure probably was the wish on the part of Company management to prolong staff employment as much as possible, through the years of the depression.

Finally, I do not know whether or not it reflects a lack of sentimentality in the City of Winnipeg, but there does not appear to be one single, solitary street car or piece of rolling stock of any kind preserved as a remembrance of the Winnipeg Electric Company. There could have been something selected from all the cars there used to be and there is still the chance of resurrecting one from out on suburban farms or various other places. But as time goes on, - and nearly fifteen years have now passed since streetcar service ceased, the opportunities are getting very scarce indeed.



TURBO'S TROUBLES

S.S.Worthen

Subsequent to the withdrawal from service of Canadian National's remarkable TURBO, many and varied were the speculations and conjectures as to what really necessitated this action. Among the railway hobbyists, the interest was intense. It was naturally of equal or greater concern to United Aircraft of Canada, since they had designed this most revolutionary transportation mode.

Early speculations about TURBO's troubles included discussion of every one of the components, from the ST-6 power-plant to the hydraulic suspension system. Rumors notwithstanding, UAC maintained a discrete silence, saying only that remedial action was being taken and as soon as the train sets were repaired and back in service, information on necessary modifications would be made public.

It is extremely unlikely that the power-plant was deficient. As power-plants go, the ST-6 and its ancestor the PT-6 have undergone more than 50,000 hours of testing and have benefitted from the expenditure of more than \$ 50 million in development and research costs. Moreover, the ST-6 has a wide application and has been successfully fitted to both land and water vehicles. It is used in racing boats, landing craft, patrol boats and a personnel-carrier for the United States Navy, scheduled for service early in 1969. On land, the ST-6 was the power-plant for three Indianapolis racing cars in 1968, all of which qualified for the race and one of which holds the current track record at "Indy". The ST-6 is also being tried out in snow-plows in the Canadian Rockies, wood-chipping machines for Canada's mammoth pulp and paper industry and elsewhere. It is a very versatile power-plant!

What did contribute to TURBO's troubles was the effect of below-zero temperatures on the component systems, which responded to the cold. The hydraulic systems, the electrically-actuated valves and switches, the air or liquid-operated controls and, last but by no means least, the circulating water systems, all reacted badly. As soon as the weather got really cold, and it did just that, shortly after TURBO's introduction in December, 1968, the oil in the hydraulic transmissions stiffened up, resulting in slower responses to acceleration and deceleration commands. Moisture condensed in air-operated systems, oil thickened in valve assemblies, and the resulting overloaded electrical systems kicked out relays and shut down auxiliary facilities. Snow and blowing snow sifted into recessed door assemblies and prevented rapid and complete door closing. And to top it all off, under-floor water and effluent lines congealed and froze, causing pumps to overload and

burn out, thus depriving the train-sets of essential passenger facilities.

All of these problems were not immediately detected. Most of them resulted in observable effects, such as electrical and heating failures, speed and schedule-time reductions and power-plant shutdowns. Canadian National was justifiably very concerned, not only for passenger comfort but also for "on-time" performance. Due to the importance of traffic patterns on the heavily-travelled Montreal-Toronto main line, already semi-computerized, significant delays and train failures could upset the entire programme, not only delaying other TURBOs, but RAPIDOS, piggy-back hot-shots and fast through-freights, as well.

As a result, the decision to terminate TURBO, albeit temporarily, was taken with great reluctance. Immediately thereafter, crews from United Aircraft Company in Longueuil, just across the river from Montreal, came to Track 6 in CN's Central Station, where the maintenance facilities for TURBO had been previously established. They immediately began the installation of detecting instrumentation on one train set. These instruments were intended to tell UAC's engineers exactly what was happening to TURBO's various systems, during the cold weather. Thus, problems could be detected, trouble spots could be pinpointed and appropriate corrections could be made. Late in January, 1969, one fully-instrumented TURBO was nearly ready to begin the diagnosis of TURBO's troubles. It was sitting on jacks in Track 6, lifted to a height which permitted easy access to underneath locations. One day, a diesel yard switcher, moving a second TURBO train-set into Track 6, accidentally came into collision with the set on jacks, causing it to fall from the jacks to the track. This effectively put the newly-instrumented set out of circulation. Still determined to beat the bad-luck jinx, UAC's crews immediately began to instrument a second set, to carry out the essential tests.

The second TURBO set, equipped with the necessary sensing instruments, was ready early in February and all systems were "go". But no sooner was the programme ready to start than the weather began to warm up! Temperatures which had formerly trended to the zero mark or below now climbed into the balmy ranges of the twenties and UAC's engineers were temporarily utterly frustrated. Undaunted, they at once decided to go looking for colder weather, and on February 13, the instrumented train-set passed through Ottawa, on its search for cold weather. Northward they went to Canada's ice-box, over CN's main line to Hornepayne and Longlac, Ont. There, they found the lost cold weather and at once began generating the information necessary to the correction of TURBO's troubles.

With the essential information now at hand, it was only a matter of interpreting it and making the necessary corrections and modifications to the seven TURBO train-sets. But this could not be completed in a matter of weeks and, in March, UAC announced that it would be four to five months before the modifications or corrections could be completed and TURBO service restored. It

was equally logical that Canadian National would not agree to resumption of TURBO service before a sufficient number of train-sets were available to provide at least one Montreal-Toronto TURBO service daily, - and on-time!

It should be recognized that engineering and design philosophies in the latter half of the Twentieth Century do not admit over-designing. Since projected operating conditions are based on average situations, the eventuation of extraordinary conditions may result in operational failures simply because the engineering and design conditions were not anticipated to include these extremes in parameters. Now, however, design and engineering considerations for TURBO do include these extremes and it is almost certain that the wintry winds of future Januarys will not interfere with TURBO's operation.

Suddenly last summer, the calm of an otherwise uneventful summer's afternoon was irrevocably shattered. Wednesday, July 30th. 1969, was just like any other summer Wednesday. Montréal radio-station C J A D's traffic-watching helicopter left its pad at the International Airport about 4 p.m., preparatory to doing its daily thing of guiding Montréal's maniac motorists through the complexities of the afternoon rush-hour. Road traffic was just about normal for the time of day.

The trafficopter was eggbeating its way towards downtown Montréal, examining Highways 2 & 20 along the Lakeshore, where they are closely paralleled by the main lines of both CP RAIL and Canadian National Railways. The men in the 'copter nearly flipped when they saw a long, grey, streamlined, high-speed caterpillar-like shape scooting along CN's rails, munching up the miles to Central Station. Within seconds, they had identified it as TURBO, - or at least one set of United Aircraft Company's Fabulous Five. The panic was then officially on!

C J A D lost no time in informing housebound and home-bound Montréalers that TURBO was back and that it wouldn't be long before Montréal-Toronto travellers would once again be able to avoid mixed-up Malton (airport) by riding the speedster. This news was thereupon picked up by other media. C B C and Canadian Press were on the 'phone before you could say "all aboard" and CN's Headquarters PR Department in Montréal was caught more than a little unprepared, on the receiving end of a barrage of inquiries which had not abated one bit by the first week in August. It seemed as though everyone was definitely interested in TURBO and when it would be back in service, - even after a very quiet interval of eight long months.

Completion of the necessary modifications to one TURBO train set, - number 5 of 5, designated as the "prototype" by UAC, pleaded a trial run to verify the predicted performance. This was however a little out of line, as it was July and not January. There was the argument that the sooner the "thing" could be made to work, the sooner it could go back into revenue service and the sooner the rent would start coming in again.

But before CN reintroduces TURBO service, a number of very important and serious decisions will have to be made. First on the list of decisions, will be the one which authorizes the modification of at least two of the five sets which will be necessary to cope with one TURBO schedule in the time table. The next decision will include a renegotiated maintenance contract. UAC's estimates seem to have been on the low side and they are now suggesting a review of the terms. The first decision will be based on winter-time tests scheduled to occur in January-March, 1970. Readers of Forster Kemp's OBSERVATIONS will have learned of the most recent activity in this area.

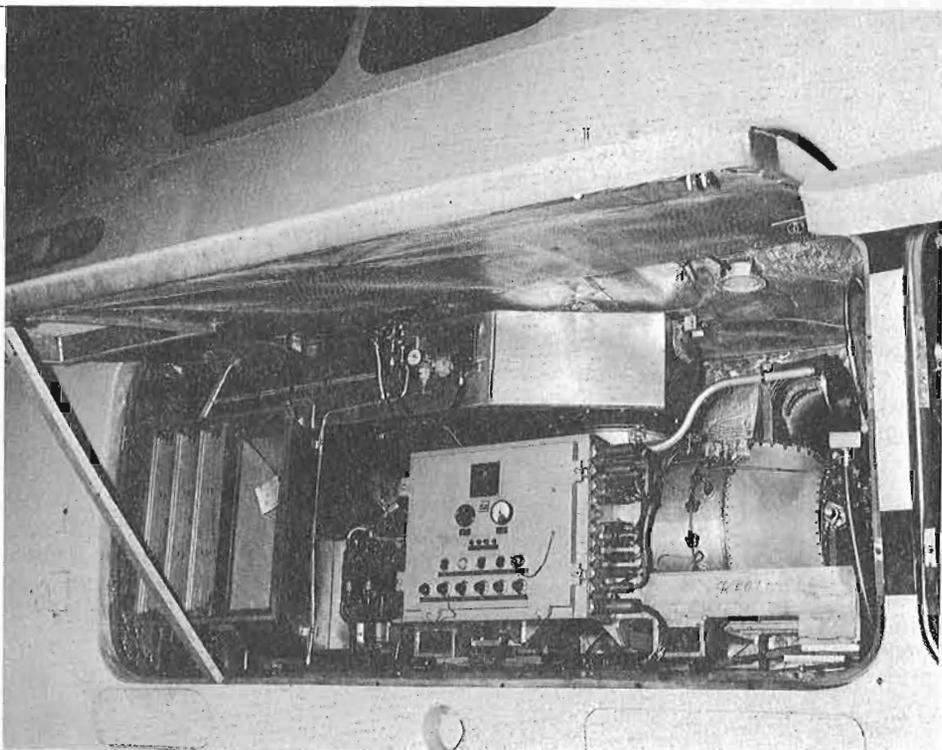
While reintroduction of TURBO is being considered in a manner which might be described as "carefully and cautiously", the concept is by no means languishing. With one TURBO trainset now modified and operational, already there is much talk about the reduced noise levels and improved riding characteristics.

Add to these improvements the degree of public interest which still exists and can be aroused by one TURBO appearance on one summer day and it must be concluded that the popularity of this modern transportation mode is a long way from having disappeared, as some of the critics would have you think!



↓ UNITED AIRCRAFT's ST-6B power package, - one of five in each seven-car trainset, installed in the flank of one of TURBO's power cars.

Photo courtesy Canadian National Railways.



NEW BOOKS ABOUT OLD RAILWAYS

S.S.Worthen.

CANADA'S RAILWAYS: Phillips,R.A.J. (CANADA AT WORK Series) \$ 4.35
McGraw Hill Company of Canada,Ltd.,Toronto,Ont. 1968
122 pp. 42 illus. 6 sketches 1 map ca. 7 x 10"

The publisher's biography of the author says that Mr. Phillips' career has been primarily in government departmental service. In 1965,he was appointed to the Secretariat of the Privy Council Office, Government of Canada,to coordinate anti-poverty programmes , among other things.Mr. Phillips' competence to write about Canadian railways is not readily understood. On other subjects, Mr. Phillips has published four titles,dealing with Canada's northern areas and the East Block of the Parliament Buildings at Ottawa.His nodding acquaintance with Canadian railway history may be responsible for the following misconceptions:

- the Lanoraie and Village d'Industrie Railway was "for summer use";
- the Northern Railway to Collingwood on Lake Huron in 1855 was "the only link with the Canadian west until the coming of the C.P.R.";
- the builders of the Grand Trunk were "inexperienced";
- the summit of Kicking Horse Pass is at Lake Louise station;



- Sandford Fleming sent a telegram to the Directors of the C.P.R. assuring them that the Rogers Pass was a satisfactory route;
- there were colonist cars on the first train from Montréal to Vancouver on June 28, 1886;
- Steam locomotive No. 40, presently at the Museum of Science and Technology, Ottawa, was a Grand Trunk Western locomotive of the 1880's;
- the "world's nearest fulfillment" of an absolutely straight railway track, with few undulations, is in Argentina, where there are 205 miles, straight and level.

The list of errors pertaining to historic and present-day railways and railway happenings could be continued. While the book is very readable, the illustrations are mostly muddy and sometimes black. The account terminates with a rather lengthy extract from Stephen Leacock's work, "The Train to Mariposa" and provides what might be considered as a very flatulent conclusion to a frivolous book. Not of interest to the serious railway enthusiast and anathema to the serious railway historian, it is disheartening to conclude that this addition to the CANADA AT WORK series will likely find its way into a large number of Canadian grade school and high school libraries, for the misinformation of students for years to come. The book is well bound, so that the possibility of its rapid disintegration in the hands of its readers is remote.

◆

CANADIAN NATIONAL STEAM POWER: Clegg, Anthony & Corley, Raymond
 Pre-pre-publication \$ 7.95 Pre-publication \$ 8.95 Canadian National employees \$ 9.95 Present price \$ 12.95.
 Trains & Trolleys, Box 1434, Station B, Montréal 110, Canada. 1969
 128 pp. 38 pp. illus. 123 tables 22 drwgs. 4 charts 1 map ca. 9x12"

This long-awaited book, somewhat expensive by today's standards, is attractively bound in Canadian National Railway's traditional green and gold, in what must be a dimension unacceptable to most book shelves. The text is neatly and precisely written and the photographs are, in the main, excellently reproduced. They are generally not the conventional builders' or company pictures, but most of the single-engine photographs are faintly reminiscent of posed builders' shots despite the fact that the engines are unmistakably in steam.

It should be firmly kept in mind that the subject of this book is steam locomotives of Canadian National Railways, an organization which began in 1923. The reader should not therefore be disappointed if he does not find his favourite Canadian Northern or Great Western Railway engine illustrated in its original paint scheme or lettering.

The table of contents is detailed and explicit, but is in very hard-to-read type size, compared with the text and the tables, as is the list of abbreviations used in the book, which appears on the very last page. In the Foreword, the authors remind the reader that the book exists "due to the persistence and ability of Anthony Cl-

egg to make his idea a reality..... ,while the particular talents of Ray Corley in the field of equipment history have provided the detailed roster and statistical analyses". This is a precise statement of fact and had the publishers of the work commissioned the compilation (it cannot be described otherwise),they could have done no better than to have selected these two gentlemen for the job.The result of the authors' devotion to their subject is,without question,a definitive work,which puts in order a hitherto very untidy aspect of Company and Canadian railway history.

CANADIAN NATIONAL STEAM POWER is a book for railway statisticians primarily and CN enthusiasts secondarily,since the history of the Company,per se,is not within the scope of the book.However, if you want to know what happened to the engines of the Québec,Montréal & Southern,or the Atlantic Québec and Western (to name only two little-known constituent companies),when CN was "awarded"these lines,you can find this information with a little persistence. A Santa Claus of unknown wheel-arrangement makes the scene on page 69. Some of the other decorations and photographs have appeared hitherto in the pages of CANADIAN RAIL. Imitation is the most sincere form of flattery.

The book is divided neatly into four main parts: the status of steam power when Canadian National was formed; the roster of CN's steam motive power; the Annual Stock Summaries of steam locomotives and finally,the System Assignments of steam engines. The tables,in some instances,are curious combinations of typewritten and handwritten figures in one or more colours,- red entries designating debit entries and the presence of so many figures in typewritten characters,rather than conventional printing type,may be disturbing to some readers.

For the railway enthusiast in Canada and elsewhere,who has been waiting for and wanting such an accurate and detailed compilation,the advent of CANADIAN NATIONAL STEAM POWER will be the occasion of great rejoicing. Please read the directions carefully before consulting the tables.

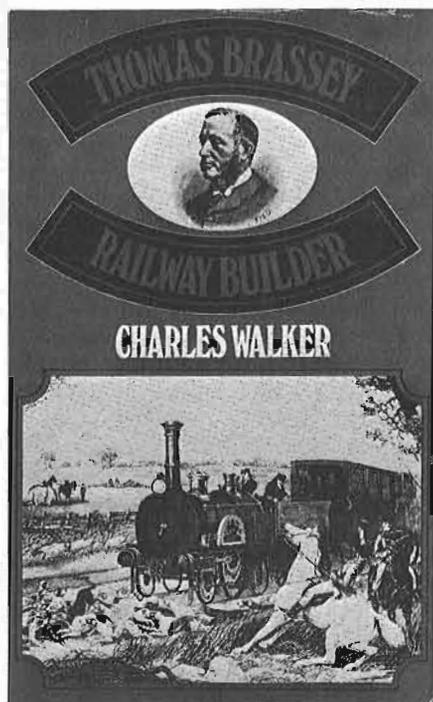
TRAINS & TROLLEYS is a second-generation model of the three-man Trains & Trolleys Book Club,which was organized by members of the Canadian Railroad Historical Association,prior to 1966. The purpose of this organization was to publish definitive works on various aspects of Canadian railways and their histories. DELORMIER & ANGUS, SELF-PROPELLED CARS OF THE C.N.R. and CATENARY THROUGH THE COUNTIES are some of the titles which resulted from this arrangement. After 1966,Trains and Trolleys Book Club was re-titled Classic Era Press,which,for a time,performed certain publishing and associated functions for the C.R.H.A. However, this relationship was terminated shortly thereafter and the present TRAINS & TROLLEYS organization,now expanded to a five-man directorate,is not connected with the Canadian Railroad Historical Association.

THOMAS BRASSEY, RAILWAY BUILDER: Walker, Chas. \$ 7.50
Frederick Muller Ltd., Fleet Street, London E.C.4, England. 1969
183 pp. 12 pp. illus. 4 maps. ca. 6 x 9"

The information from the publisher on the jacket of this book contains the statement that no biography of Thomas Brassey has appeared since 1872 and readers will welcome this modern look at a Victorian giant. The portion of the book which is special interest to Canadian readers is the 14-page chapter dealing with Thomas Brassey's association with the construction of the Grand Trunk Railway in the period 1853-56. Brassey's involvement with this enterprise was through his membership in the English railway contracting firm of Peto, Brassey, Jackson and Betts.

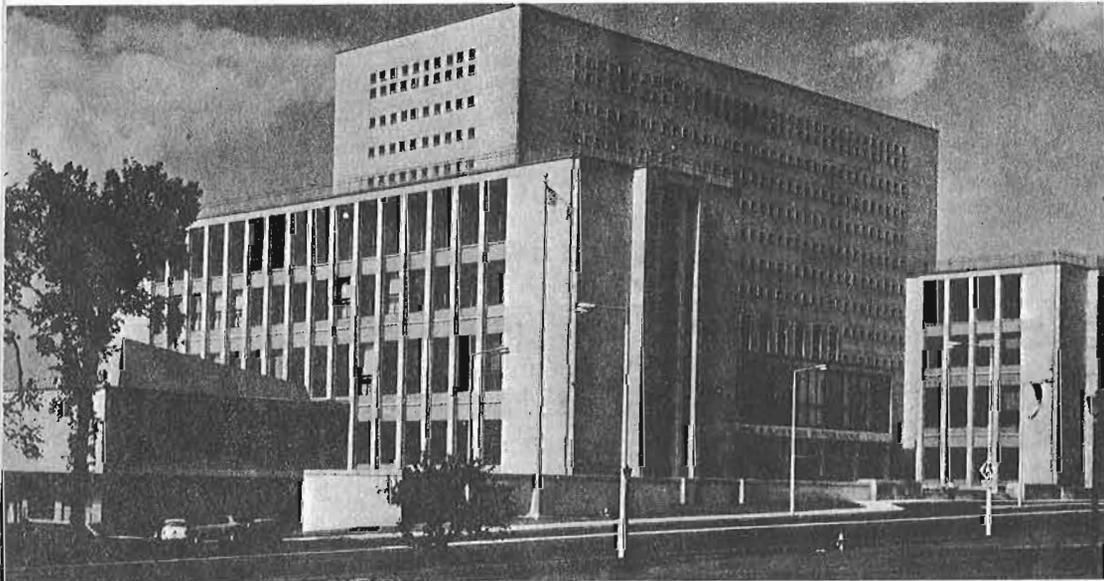
The author, Mr. Walker, describes the proposed line of the Grand Trunk as running "over largely unsettled, unpopulated country, including virgin forest, for some two-thirds of its length". And further, after some criticism of the Canada of the time, the then-Canadian government and personages such as Sir Alexander T. Galt (his motive was partly profit and partly prestige) and Francis Hincks (his motives were political), the author approaches the end of this section of his work with the following summary:

"It must be said in fairness that the feat of building the railway was a magnificent one and one that should not be minimized. It ranked as one of the engineering wonders of the 19th. cen-



tury, for all its lack of financial success and was a work of vision and enterprise. But as we have seen, it left a legacy of bitterness among Canadians, for many of them felt that their young country had been the victim of a shabby confidence trick and the contractors were largely blamed. As recent as 1957, a book published by the University of Toronto Press, THE GRAND TRUNK RAILWAY OF CANADA, by A.W. Currie, revived and re-appraised some of the old charges and counter-charges.....".

The author, Mr. Charles Walker, the deputy-headmaster of a Warwickshire grammar school, is more to be pitied than censured. He would have done well to consult Colonel Stevens' two-volume work on Canadian National Railways. As for the remainder of Walker's book, it is very readable and of great interest, but deals with Brassey's career in Great Britain, France, Denmark, assorted Italian and Austrian states and principalities, the Crimea and India. Mr. Brassey was a man of many parts, of which one was a 363-mile long railway through the forests of British North America, in the construction of which, together with his associates, he is said to have contributed \$ 5,000,000 unwittingly to the Canadian people. "All in all, it was a sorry business", says the author. The Great Grand Trunk Railway Mystery is still no nearer explanation. Mr. Walker's book, - or more properly one chapter of it, throws no new light on this ancient enigma.



SOURCES OF RAILWAY INFORMATION IN THE

ARCHIVES PUBLIQUES DU CANADA



PUBLIC ARCHIVES OF CANADA

John Beswarick Thompson.

CANADIAN RAIL is privileged to present another article by Mr. John B. Thompson, who has made previous contributions to early Canadian railway history. Mr. Thompson is presently Staff Historian, National Historic Sites Service, Ottawa, Canada.

The author wishes to acknowledge his indebtedness to Mr. Brian Hallett of the Public Archives of Canada, for his assistance in the preparation of this study.

Although much has been written about Canadian railways in the past, much remains to be written in the future. For anyone desiring to research the history of a Canadian railway, the Public Archives of Canada in Ottawa provide a wealth of primary source material, well worth investigating.

There are several drawbacks facing the railway historian before he begins his investigation. The railway records are not consolidated, but are included in many different groups of records and manuscripts. In some cases, only the briefest of indexes have been prepared to aid the researcher in finding desired material. However, the helpful staff of the Public Archives spare no effort in assisting legitimate researchers and, in order to help those who may wish to investigate a certain railway, the following is a summary of sources available:

Record Group 1, Section E 6

One linear foot of records of the Board of Railway Commissioners, the body which administered railway matters for the Government of the Province of Canada, from the be-

THE PUBLIC ARCHIVES OF CANADA, on Wellington Street in Ottawa, are divided into 4 divisions: The Public Archives Library, the Manuscript Division, the Picture Division and the Map Division, open 8.30 am to 4.50 pm Monday to Friday, except in summer, when closing time is 4.10 pm.

ginning of Canada's railway boom in 1851 to the time of Confederation (1867). Letters received and sent, minutes of meetings and reports are all included in this group of records, which contain valuable information for those researchers interested in lines built in Canada's first railway era.

Record Group 11, Series III

This is a collection of records from the Department of Public Works which, in addition to building asylums and court houses, - as well as roads, also had a finger or two in the railway pie!

Volumes 191 and 473-5 contain scattered letters pertaining to early railways, from the Buffalo, Brantford and Goderich to the Three Rivers & Arthabasca. An interesting list of early locomotives owned by the Grand Trunk Railway, during and after its construction, is also among these

records.

Volumes 456 and 732-40 concern the Intercolonial Railway and include estimates, reports and letters received and sent by officials of that line between 1867 and 1877. Sir Sandford Fleming's letterbooks are amongst these records.

Also worthwhile examining are the Registers of Papers filed with the Railway Branch of the Department of Public Works (1867-79), Volumes 679-82.

An inventory of this entire Record Group has recently been prepared and is readily available to the researcher. With it, the specific information desired can be found more easily in this Record Group which contains rather fragmentary railway material.

Record Group 19

Although there are a few railway items in this Record Group, - the papers of the Department of Finance, these papers are not very available due to a reorganization of the material currently being undertaken by the staff of the Public Archives.

Record Group 30

This is the major source of railway information in the Public Archives of Canada. This Record Group comprises the whole of the archives of the Canadian National Railways and includes the internal records of the many constituent companies which formed the publically-owned system.

In 1962, the CN employed Mr. John Andreassen as archivist to survey the Company's archives and recommend what might be done with these records. "When the survey of our non-current corporate records was begun," wrote Mr. Andreassen, "hardly two volumes in a series were in order". He recommended that the material be sorted, indexed and sent to the Public Archives of Canada to be stored and made accessible to interested members of the public.

Throughout the last decade, literally carloads of these records have been transferred to Ottawa by Mr. Andreassen, - 469 volumes of papers relating to the Intercolonial Railway and 9,000 volumes of Canadian National Railways records have been boxed and shelved at the Public Archives! By some time in 1970, Mr. Andreassen, now working on the project on a part-time basis, will have prepared indexes to most of this material and in addition, the staff at the Public Archives is working intensely on a preliminary inventory of these records. No serious student of Canadian railway history can overlook this significant collection of corporate records, which has only recently been placed in a location where it will be available to the public.

It should be noted that research workers must apply to the Canadian National Railways for permission to consult any records of the Company which are less than thirty years old.

Record Group 43

This is a collection of records from the Department of Railways and Canals, - now the Department of Transport, which was originally created in 1879 to administer the railway affairs of the Government of Canada. Thus, these records serve as an extension of the material contained in Record Groups 1 and 11.

At present (January, 1970), most of this extensive collection of 659 shelf-feet of records is stored at the Record Centre of the Government of Canada and has not yet been transferred by the Department of Transport to the Public Archives. When this transfer occurs, - and it is expected shortly, valuable records dating from 1847 to 1936 will be available to the public and the somewhat-neglected late-Victorian period of Canadian railway development will be able to be studied in greater detail than has been possible, hitherto.

Record Group 46

The records of the Board of Transport Commissioners, today the Canadian Transport Commission, include important

records involving that increasingly-common phenomenon in modern-day railway history, -abandonment. Also included in these papers are extensive records of hearings before the Board and an index to these is expected shortly from the C.T.C. by the Public Archives.

Manuscript Group 29

This is an important manuscript group, containing the papers of many Canadian post-Confederation figures, connected with Canadian railways. Series A includes the following notable persons:

- | | |
|-----------------------------|-----------------------|
| 3. Sir R.B. Angus 1875-1902 | : microfilm; 3 reels; |
| 8. Sir Sandford Fleming | : 40 feet; |
| 10. Sir Joseph Hickson | : 2 inches; |
| 12. Mr. Samuel Keefer | : 2 inches; |
| 19. Mr. Marcus Smith | : (ICR 1" - CPR 3"); |
| 20. Sir George Stephen | : 2 inches; |
| 22. Sir Henry Tyler | : 2 inches; |
| 23. Mr. Edmund Wragge | : 1 inch. |

Other Manuscript Groups

Briefly, it should be noted that several other manuscript groups contain railway information. These are:

MG 9 : Papers relating to provincial and interprovincial railways in New Brunswick;

MG 24 : Miscellaneous lists, specifications, etc., of various railway companies.

MG 30 : 20th. century manuscripts which include the memoirs of H.W.D. Armstrong, a civil engineer, who was involved in the construction of four major railways and the papers of C.M. Hays, of the Grand Trunk Railway, which relate to the Grand Trunk Pacific Railway.

In addition to all the records and manuscripts described, the Public Archives of Canada also houses an extensive collection of maps, pamphlets and photographs, many of which pertain to Canadian railways, as well as copies of newspapers, bound and on microfilm. These sources also are invaluable to the railway historian.

There is a great need for continuing research in the field of Canadian railway history and development. The stories of many small lines remain to be told; the published histories of other railways need to be revised and expanded. The raw materials from which these new histories can be fashioned lie waiting to be used in the Public Archives of Canada, at Ottawa.

"CANADIAN RAIL" POLICY

The Board of Directors of the Canadian Railroad Historical Association has directed that the following statement be published in CANADIAN RAIL:

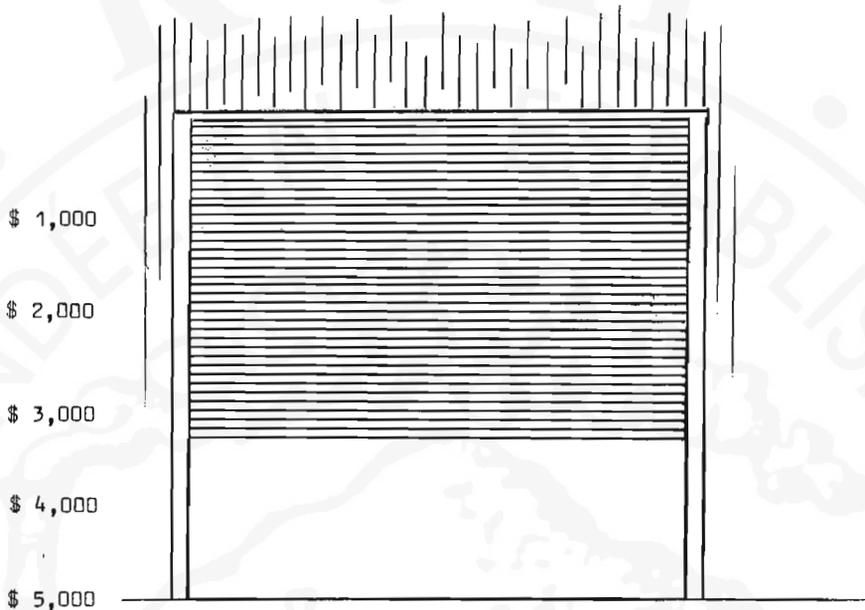
The opinions expressed in articles and reports in the Association's publication CANADIAN RAIL are those of the authors and are not, unless specifically stated, those of the Canadian Railroad Historical Association. The Canadian Railroad Historical Association and the Editor, CANADIAN RAIL, cannot accept any responsibility for the return of unsolicited manuscripts or photographs submitted for publication in CANADIAN RAIL, but the Editor will make every effort to return material submitted for publication at the request of the person making the submission.

To dispel any misunderstanding regarding information included in articles published in CANADIAN RAIL, the Editor would like to communicate the following information to contributors;

1. No changes will be made in statements of fact made by a contributor; accuracy is the responsibility of the author;
2. The Editor reserves the right to make certain changes in grammar and syntax and in the choice of adjectives and adverbs, for reasons of space accommodation;
3. Comments regarding information contained in articles in CANADIAN RAIL should be addressed to the author, in care of the Editor; the Editor will be glad to forward these comments to the author;
4. Readers are encouraged to write to the Editor at any time with suggestions for improving the written material published in the magazine; suggestions regarding lay-out, printing and other production aspects should be directed to the Director, Production. Comments regarding the distribution of CANADIAN RAIL should be directed to the Director, Distribution.

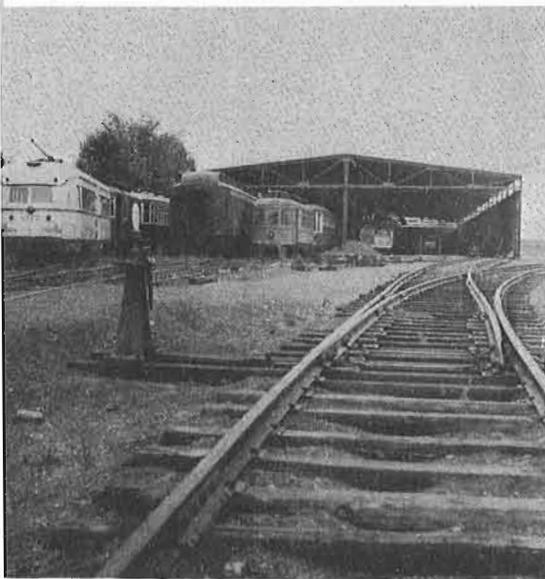
The Editor regrets that in the February, 1970, issue of CANADIAN RAIL, in some of the photo captions, he was unable to differentiate between F-M "Trainmasters" and model H-16 -44's. He has since been suitably educated and assures Mr. R.A. Loat, the author of the article "Coal to Japan" that this error will not be repeated.

DOORS . . . ?

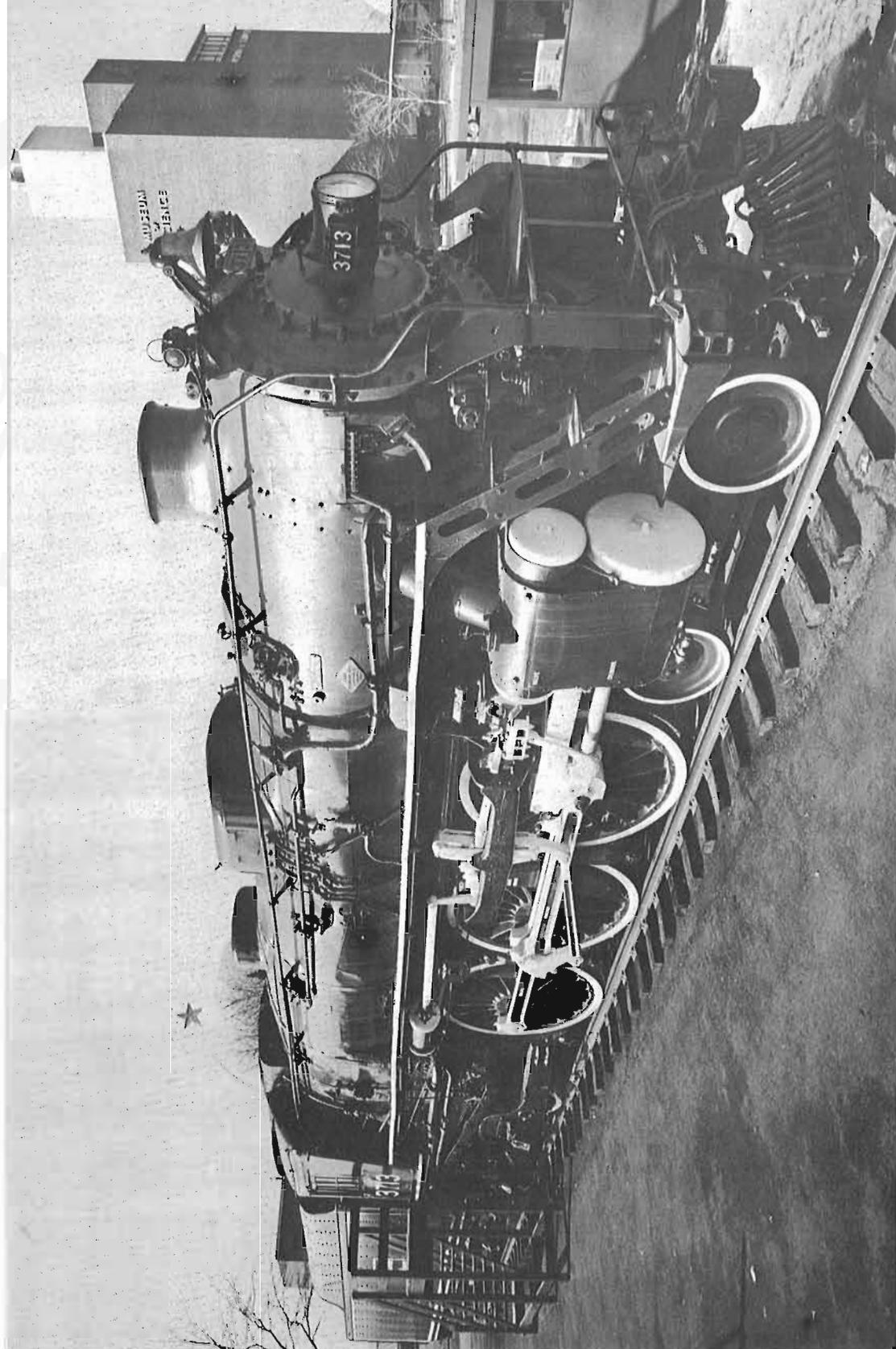


ONE LAST 'TUG'

To close the six doors on the new Exhibit Building No. 2 , at the Canadian Railway Museum. Our quotation is in, and our target has been lowered to \$ 4,600.00. . . . One final tug should do it.



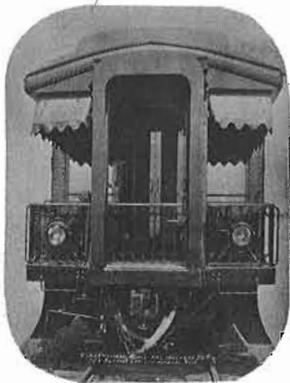
This is the way Building no. 2 looked in the autumn of 1969. The front has been partially closed in and the money donated to the DOORS Fund will permit the installation of vertical roll-type doors to protect the exhibits from the elements. Photo by Museum Commission.



MUSEUM OF SCIENCE

3713





OBSERVATIONS

WITH F.A.KEMP

COMPULSORY RETIREMENT FOR FREIGHT CARS:

August 1,1970 is the deadline for removal of all freight cars,50 years or more old, from interchange service in North America. The original deadline,under the order issued by the Mechanical Division of the Association of American Railroads,was January 1,1970,but it was extended due to a few protests from private car owners,mostly operators of tank and refrigerator cars,that the notice given was too short to allow orderly compliance. Something like 32,000 cars will be affected. Most Canadian cars of this vintage have already been retired,following similar orders banning the use of cars with arch-bar trucks,without AB brakes and without all-steel wheels,from interchange service.

SOME TRANSIT NOTES:

The bill setting up the Montréal Urban Community came into force January 1,1970. This additional level of municipal government is to assume responsibility for common public transport services on the Island of Montréal,in addition to other services. The MUC is expected to assume control of the Montréal Transportation Commission and the whole would become known as the Montréal Urban Community Transit Commission (MUCTC) probably translated as Commission de Transport du Communauté Urbain de Montréal (CTCUM). Either of these sets of initials,if spoken,sound like an Eskimo word for a mouthful of dried seal meat! The MTC already serves the eastern end of the Island, while the western portion is served by Métropolitain Provincial,Inc.,Autobus Mille-Iles,Inc., and Brisebois Bus Lines.

← Jim Shaughnessy sends us this excellent picture of Boston & Maine Railroad "Pacific" no. 3713,formerly of Steamtown U.S.A. and now resident at the Museum of Science,Boston,Mass. The newly-painted locomotive will be placed under cover at an early date.

NEW CARS FOR TORONTO'S SUBWAY:

On January 20, 1970, the Toronto Transit Commission awarded a contract to Hawker Siddeley Canada Limited for construction of 76 new subway cars. The cars will be similar to the Hawker-built brushed-aluminum cars, now in use, but will have cheaper, although unproved, motors. The Company was the low bidder on the contract at \$ 11,781,787, or approximately \$ 155,000 each. The cars built in 1964 cost \$ 93,000 each. Hawker Siddeley will build the cars in its Thunder Bay, Ont. (late Fort William) plant. One of the TTC commissioners, James Fisher, asked the Commission to place the order with the second lowest bidder, MLW-Worthington, Limited, on the grounds that the MLW-W cars would have a better appearance, a better welded construction and experience-proven motors, although costing \$ 900 more per unit, but his plea was rejected. MLW-W built the first 26 light-weight cars (nos. 5300-5325) for the TTC. The new cars will be required when the YONGE (Street) line extension opens in 1972, but earlier delivery will help to alleviate the present tight equipment situation.

TIGHT FIT AT TORONTO:

Toronto's subway recently acquired a crane car which, when delivered proved to be too high, both for the subway tunnels and the shop doors. This peculiar situation had to be corrected by modifying the car's springs. After this alteration, it will be used for replacing worn rails and special work, as well as other jobs requiring heavy lifts.

AIR POLLUTION AND TROLLEY BUSES:

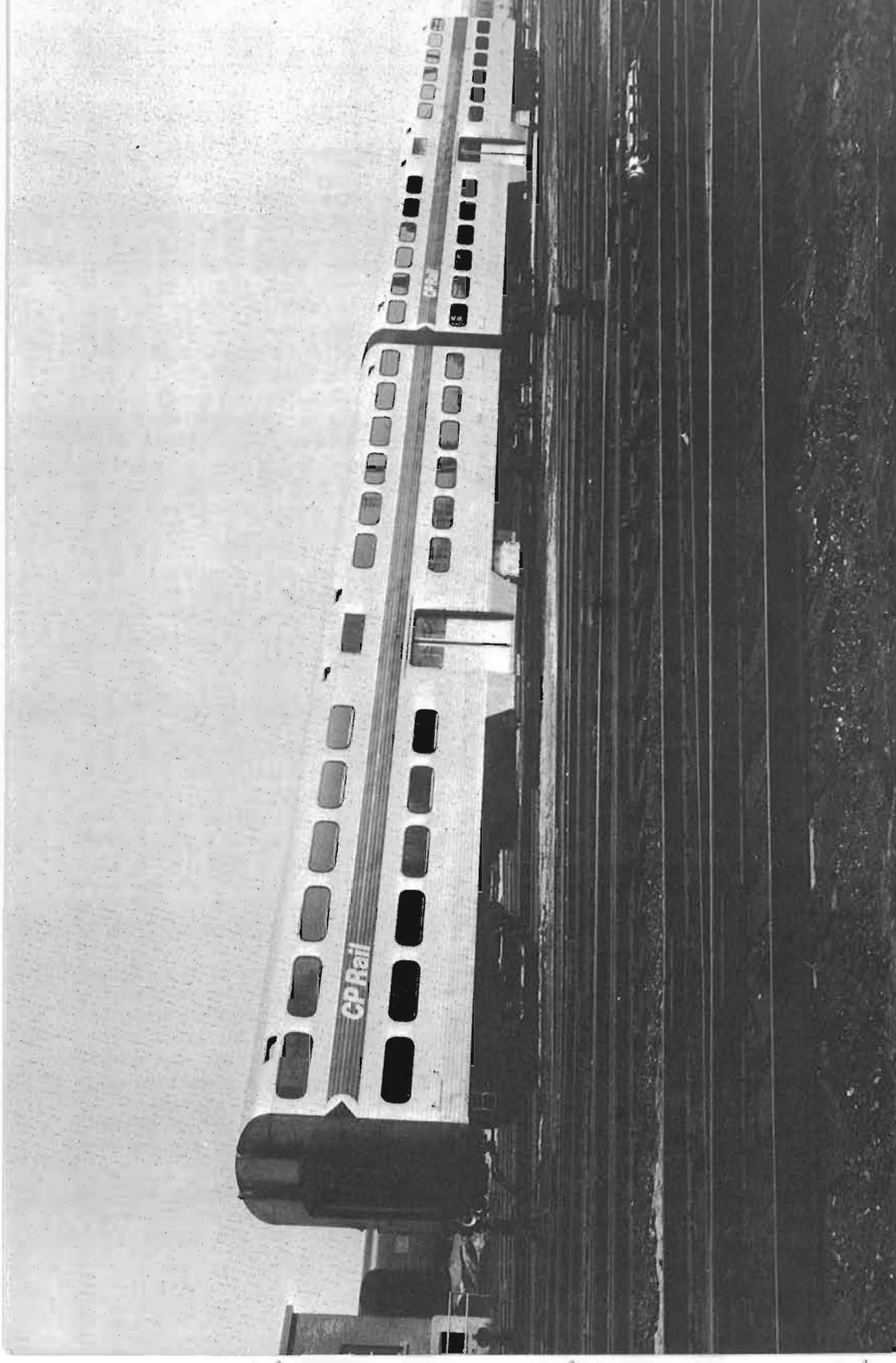
Many of the Canadian transit systems which converted from "rails to rubber", during the late 1940's and early '50's, adopted the electric trolley coach for some or all of their lines. As these vehicles are now no longer being built and the existing ones are due for replacement, the usual course has been to convert these electric buses to diesel-powered units. This conversion has already occurred in Ottawa and Montréal and, more recently, in Halifax and Thunder Bay (merged Fort William and Port Arthur, Ont.), despite the environmental pollution factors of fumes and noise which are not emitted by the electric vehicles. The Toronto Transit Commission, facing the same problems on its seven trolley-coach routes, sent unit no. 9020 to Western Flyer Coach Limited of Winnipeg, where it received a new body of modern design. The "NEW" 9020 has since run more than 31,000 miles, evoking favourable comment from passengers and employees. TTC has awarded a contract to Western Flyer Coach of \$ 5,225,000, for the rebuilding of 151 vehicles over a period of two years. The electrical equipment and motors, which are still in good condition after 18 to 23 years of service, will be overhauled in Hillcrest Shops of the TTC. Each rejuvenated unit will cost about \$ 4,000 less than a new diesel-powered bus.

OLD KING COAL,THE MERRY OLD SOUL,REIGNS AGAIN:

CP RAIL unit coal trains,105-ton gondola cars,ROBOT control, new diesel units,the Sparwood Branch,the Roberts Bank Terminal and the Alberta Resources Railway have all made the news in the last year, but Canadian National stole a march recently on all the new,highly-publicized facilities,by operating its own unit coal train from Luscar,Alberta to Neptune Terminals in North Vancouver,B.C. In the light of this event,it is hard to believe that the last coal train operated over this line back in 1956. The line to Luscar,officially the Mountain Park Subdivision,extends 68 miles south from a connection with CN's main line at Bickerdike,Alta. to Luscar,Mountain Park and Foothills,Alta. The coal comes from an open-pit mine operated by Cardinal River Coals Limited at Luscar. There were once a dozen mines in the vicinity but all of them closed as markets diminished. The Luscar operation was the last to close and the first to re-open. One 85-car train will operate every five days. Many sidings have been built and existing ones extended on CN's comparatively easy route through Yellowhead Pass in the Canadian Rockies and the new tunnel-bridge route,completed last year,provides easy access to North Vancouver,where Neptune Terminals is located. The Luscar trains will soon be joined by others running from Grand Cache on the Alberta Resources Railway,where McIntyre-Porcupine Mines will begin shipments of black diamonds late this spring.

TO THE GREAT OCEAN:

Canadian National is also involved,along with CP RAIL,BC HYDRO and Great Northern (U.S.A.) in construction of the access route to the Roberts Bank superport terminal,destination of CP RAIL's unit coal trains. When all of the dust generated during the construction has settled,CP RAIL coal trains will follow the following route:Crowsnest line to Colvalli; Windermere Subdivision to Golden; main line to Mission; Huntingdon Branch to Matsqui; CN main line to Hydro Junction; then over a new 2-mile branch being built by CN to Livingstone on the BC HYDRO Railway; then over the BC HYDRO main line to Cloverdale and a new branch to Pratt Junction on the Great Northern;after running about a mile on Great Northern track to Colebrook,the trains will run over a new line west to Roberts Bank.This new line has also been built by BC HYDRO. The first CP RAIL train is expected in late March or early April and will undoubtedly experience some operational problems,as it appears that the CN part of the line will not be completed in time,due to legal and other difficulties. It will,in this event,either have to transfer to BC HYDRO's line at Abbotsford,farther down the Huntingdon Branch, or continue on the main line to Coquitlam and down the Westminster Branch to interchange to the Great Northern at Sapperton, thence across the busy bridge at New Westminster to Colebrook and Roberts Bank. Both of these alternatives will involve reverse movements,as well as probable break-up of the unit trains,which the planned route,when completed,is particularly designed to avoid.



Reference to the BC HYDRO map in the current "Official Guide of the Railways" will help to clarify this route. The four-railway line is actually the most straightforward one that could be built, using as it does the minimum amount of new trackage, while avoiding obvious bottlenecks such as the busy Fraser River bridge at New Westminster, which is a pile-and-truss draw span, used since time immemorial by CN, GN and BC HYDRO.

ICE, SPRING, FLOODS AND WASHOUTS:

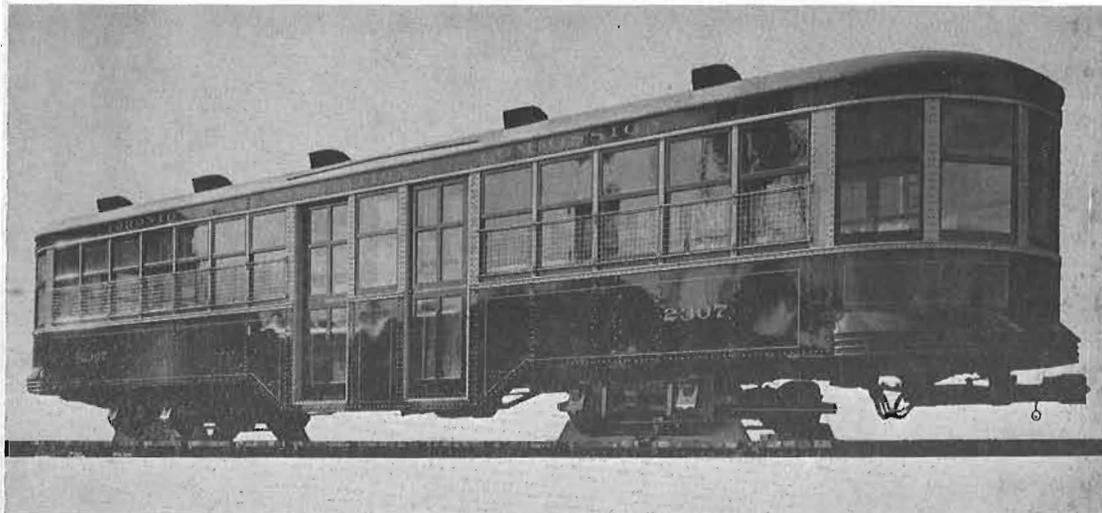
The main line of CP RAIL between McAdam and Saint John, New Brunswick was cut late in February, following heavy rains in southwestern New Brunswick, which caused rivers to rise rapidly, breaking up the ice, washing out railroad roadbeds and damaging bridges. One of two bridges near Bailey, N.B. was lifted from its piers, while the other was displaced slightly. The "Atlantic Limited" was turned around at McAdam until the line was repaired and passengers were carried to and from Saint John by bus. CP RAIL freight trains at first operated over CN lines from Québec eastward to Saint John, via Moncton and some via Fredericton, but in the latter days, they ran all the way from Montréal via the CN. CP RAIL's line was reopened early in March, but slow orders in many places will probably remain in effect until late spring. In the same area, CN did not fare much better, but washouts were principally confined to branch lines, since CN's main line follows the east coast of the Province.

SAINT JOHN TRAINSHED COMES DOWN, DESPITE THE RAIN:

Canadian railway stations with trainsheds covering all or most of their tracks are comparatively rare, so the demolition of the one at Saint John, N.B. Union Station is noteworthy. Due to the necessity to provide approaches to the new Harbour Bridge, as well as reconstruction of the Mill Street Viaduct, the eight tracks of Union Station have been reduced to four and the shed completely torn down. The nearest city bus stop has been relocated two blocks away! Track 1 handles the two daily CN RAILINERS; Track 2 is used for car storage; Track 3 receives CP RAIL's "Atlantic Limited" and Track 4 is the "run-around" for freight trains and diesel units. Union Station is actually owned by Canadian National and was built in 1925. It bears some architectural resemblance to Halifax and Hamilton (James Street) stations, which were built in the same period. Although the layout of the three terminals is markedly different, the materials used and the similarity of appearance suggest a common architect.

CP RAIL's new bi-levels are off and running during the week of March 23. These two specimens were caught at CP RAIL's Glen Yard on March 19, 1970, by M.P. Murphy. More on the bi-levels in a future issue of CANADIAN RAIL.

Canadian Car & Foundry Company's lot 511 of September, 1921 was a group of 48-foot centre-entrance-exit trailer cars for the Toronto Transportation Commission, Toronto, Ont.



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