

# Canadian Rail



Number 162 / January 1965





Cereal box coupons and soap package enclosures do not generally excite much enthusiasm from the editor of 'Canadian Rail', but we must admit we are looking forward with some eagerness to completing our collection of RAILWAY MUGS currently being distributed by the Quaker Oats Company, in their specially-marked packages of Quaker Oats.

This series of twelve hot chocolate mugs depicts the development of the steam locomotive in Canada from the 0-6-0 "Samson", to the CPR 2-10-4 #8000.

The mugs are being offered by the Quaker Oats Company of Canada to salute Canada's Centennial, and the part played by the railways and their steam locomotives in furthering the progress of the nation. Each cup pictures an authentic locomotive design -- one shows a Canadian Northern 2-8-0, a type of locomotive that made a major contribution to the country's prairie economy by moving grain from the Western provinces to the Lakehead -- another shows one of the Canadian Pacific's ubiquitous D-10 engines.

There are 12 different locomotives in the series - each a collector's item. The reproductions are precisely etched in decorative colours and trimmed with 22k gold.

# LOCOMOTIVE NOTES

-- E.L.Modler.

Once again this year, the Canadian National Railways has leased a number of road switcher type diesels from the Duluth, Missabe and Iron Range Railroad. While last year all the units leased from the D.M.& I.R. were assigned to Winnipeg, this year eighteen have been assigned to Montreal, and four to the Duluth, Winnipeg, and Pacific Ry. Following are details of the leased locomotives:

Assigned to Montreal

Class RS-1 "SD-9" 1750 h.p. Built E.M.D. 1956

101	Serial No. 21727
102	21728
103	21729
104	21730
106	21732

Class RS-2 "SD-9R" 1750 h.p. Built E.M.D. 1957

111	23099
112	23100
119	23107
121	23109
123	23111
124	23112

Class RS-6 "SD-18" 1800 h.p. Built E.M.D. 1960

175	25779
179	25783
185	25789
188	25792
190	25794
192	25796
193	25797

Assigned to Duluth, Winnipeg and Pacific Ry.

Class RS-2 "SD-9R" 1750 h.p. Built E.M.D. 1957

113	Serial No. 23101
114	23102
117	23105
120	23108

The C.N. System has also transferred a half dozen road switchers to the Central Vermont Railway from the D.W.& P., and another 6 from the C.V. to the Grand Trunk Western. Alco-built 3609-3614, formerly on the D.W.& P. are now assigned to St. Alban's, while E.M.D C.V. 4552-4557 have been sent to Battle Creek.

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## Our Cover

From the days of the early pack trains, down through the ages, man has sought to conquer distance and time in the transport of himself and his goods. With the designing of C.N. 9000, the Canadian National engineers developed a new type of motive power, the forerunner of today's fleet of diesel-electric road units. The cover illustration shows No. 9000 on a trial run before being put into service on "The International Limited". See also Page 4 and 5.

(From Canadian National Rys. Magazine)





Canadian steam locomotive exhibits at the Railway Museum at Delson encompass a span of some sixty-three years from 1886 when CP #144 was outshopped by the CPR DeLorimier Works, until 1949 when the Canadian Pacific took delivery from Montreal Locomotive Works of #5935, the last steam locomotive built for a main line Canadian railway. The National System's representatives include selected items from all the main constituent lines, dating back to 1906, while CN 6077, an example of the last-designed class of Canadian National Railways' steam power is still in existence on CN lines.

Electric railway progress is well represented as well. Montreal's first electric tram, "The Rocket" #350, shares honours with the last M.T.C. PCC #3517, while samples of street railway and transit equipment from all across the country, span the era 1875 (c) to 1944. (It may seem like heresy, but I think we should have one trolleycoach, as well - Ed.)

Unfortunately, - however, - there is one aspect of rail transportation that has not been adequately represented, as yet - i.e., the evolution and development of modern diesel motive power. It is yet too soon to expect any motive-power-hungry railroad to donate a still-reliable diesel to a museum -- but an eye should be kept on a unit or two that might well fit into our exhibition in a decade or two, when Road "A" and "B" units might have been supplanted by high-horsepower "hoods", or the railways of this country might be following the Europeans into electrification.

How we would go after the CN's original 9000 now if it were being retired next month!!! But unfortunately that interesting machine was retired and dismantled before railway museums were considered in as favourable light as they are today. The National System's twin-unit 9000 (9000-9001) was the "Daddy of the Diesel", the forerunner of the fleet of modern locomotives that now power the country's main-line freight and passenger trains.

Diesel locomotion had been introduced to the American continent in 1925 by CN's "oil-electric" self-propelled cars 15817-15825 (\*) and copied soon thereafter by a few small switchers. No. 9000, however, was a pair of units designed to haul heavy main-line trains. The idea for harnessing the oil-fuelled internal combustion engine for main line railway use on the North American continent started in 1925 when CN 15820 proved that diesel power could do more than chortle around the yards and provide economical light-duty branch line service. In November of that year, 15820 made its trans-continental journey and broke a number of records in so doing. (See C.R.H.A. News Report No.12-Ed.)



\* We are fortunate that 15824, a representative of this original group of diesel-electric cars, was retained for tower-car use on the CN's Montreal terminal electrification, and doubly fortunate that the C.N. has agreed to donate the surviving pioneer unit to the Canadian Railway Museum.



From the experience gained by this gruelling test, and from the day-to-day operation of the CN's fleet of nine diesel-electric motorcoaches, plans for Number 9000 were drawn up. They were the outcome of many months of work by CNR motive power experts under the direction of C. E. Brooks, Chief of Motive Power, Sir Henry Thornton, Chairman and President of the CNR and S.J. Hungerford (later President of the National System).

The Canadian Locomotive Company was commissioned to build the bodies for a two-unit diesel electric locomotive, each section forty-seven feet in length; William Beardmore and Company of Glasgow supplied the engines -- two twelve cylinder "V" type 1330 H.P. four stroke cycle diesels; and Canadian Westinghouse provided the necessary electrical equipment.

The trial run of the locomotive which took place November 20th, 1928, from the builder's plant at Kingston, Ontario, to Montreal was not intended to be a very severe test, but 9000 on this trip attained a speed of sixty-five miles per hour. Although speed was not the object of the test, the sprint was indicative of the possibilities of this new addition to Canadian National motive power.

The gear ratio of the locomotive was designed for high-speed passenger service and enabled the complete unit to develop a continuous tractive effort of 42,000 pounds, with a starting effort of 100,000 pounds. Brakes were Westinghouse type 14 EL; a lead storage battery of 56 cells provided the necessary power for engine starting, lighting, auxiliaries and control; and train heating was looked after by a Clarkson oil-fired thimble-tube steam generator, the forerunner of the presently well-known and extensively-used Vapor Clarkson Steam Generator. This generator

was assisted by an economizing boiler which made use of the exhaust gases of the oil engine. The principle of locomotion was the same as that used in the diesel-electrics built today, but the appearance of the 325 ton locomotive did not bear much resemblance to its modern counterparts; the colour scheme was black, and there were no fancy cowlings, but the design was pleasing to the eye and the performance was remarkable.

On September 26th, 1929, Number 9000 (both units were numbered the same when used in multiple) made its first official appearance -- a run as second section of The International Limited from Montreal to Toronto. The news that the largest and most powerful diesel-electric in the world was coming brought hundreds of people to each of the stations along the route. Right on time the train arrived in Toronto, and the new means of motive power had proved itself under actual railway operating conditions.

Subsequent to this run-- which, as we all know now, ushered in a new era in rail transportation -- the locomotive, designated as class V-1-a, saw duty hauling important trains on the Central Region of the Canadian National Railways. Later, the two units were operated separately, the second section being renumbered 9001, but the economic ills of the 1930's prevented further experimentation and no new locomotives of this type were built. For eleven years these engines were operated on various runs in Quebec and Ontario until 1939 when number 9001 was retired.

With the advent of war with Japan in 1941, a new chapter was written in the history of the pioneer 9000. It was commissioned by the Canadian Government and was rebuilt by the Canadian National Railways at Winnipeg

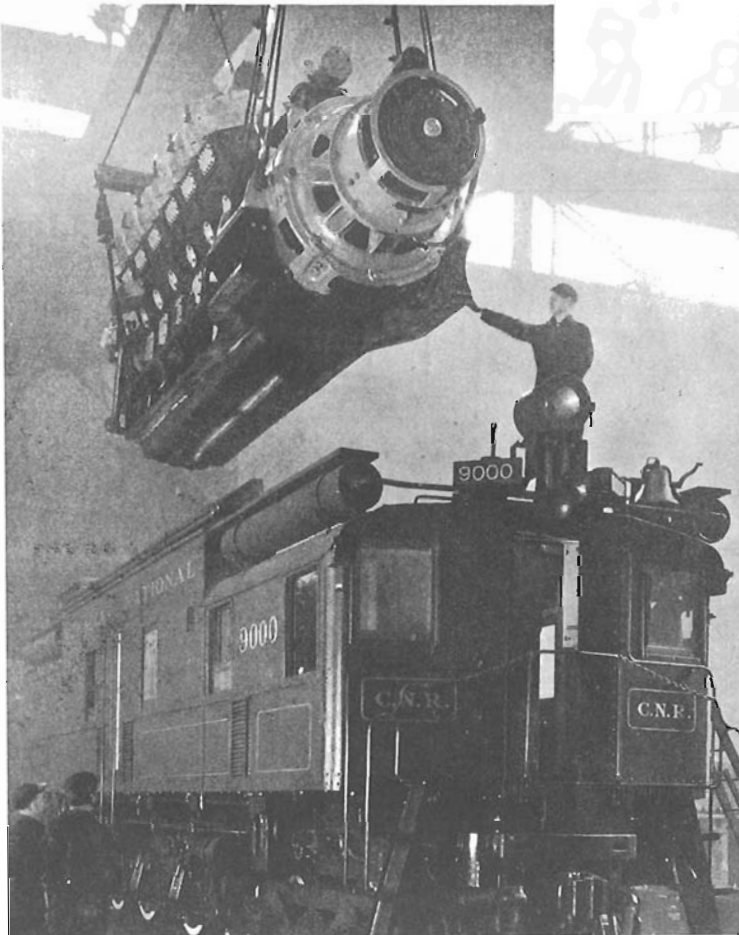


Shops, covered with heavy armour down to the rails, and camouflaged as a box car. A new General Motors engine was installed and it is interesting to note that this new powerplant fitted almost identically into the position occupied by the Beardmore engine which was removed. The remodelled locomotive was sent to British Columbia, where it operated with an armoured train on the Pacific Coast. For obvious reasons, the details of this service were not made public, but at the end of hostilities, number 9000 was released for civilian railway use.

After its return to the Canadian National, the armour plate was removed, but although it was still the same 9000 it was hard to recognize the lines of the

original locomotive in the box-like appearance of the rebuilt model. In this form it was operated for 15 months in regular passenger service between Quebec City and Edmundston, and then retired.

This famous locomotive unfortunately did not last to meet the new Electro-Motive road freight units, which the Canadian National purchased in 1948, and which were first operated on the line over which the original road diesel made its initial run -- but the many diesel-electric road locomotives in operation throughout America today are indirect tributes to the 9000 -- to those who planned and built the pioneer, and made practical the application of the diesel engine to railway operation.



PHOTOGRAPHS:

Page 5 (upper)

The original twin unit 9000 poses at Dixie Station on the now-abandoned line through Lachine, Que.

Page 5 (lower)

After armoured train service, the pioneer No. 9000 returned to civilian duties in a new garb.

Page 7

Installation of the 25 ton engine in the 9000 at Canadian Locomotive Co., Works, Kingston, Ontario.

(C.N.photos.)

LOCOMOTIVE PRESERVATION  
by the  
Rocky Mountain Branch

A photostory, showing the moving of N.A.R. 73 into Cromdale Carhouse, Edmonton, where restoration work on the locomotive will be performed.

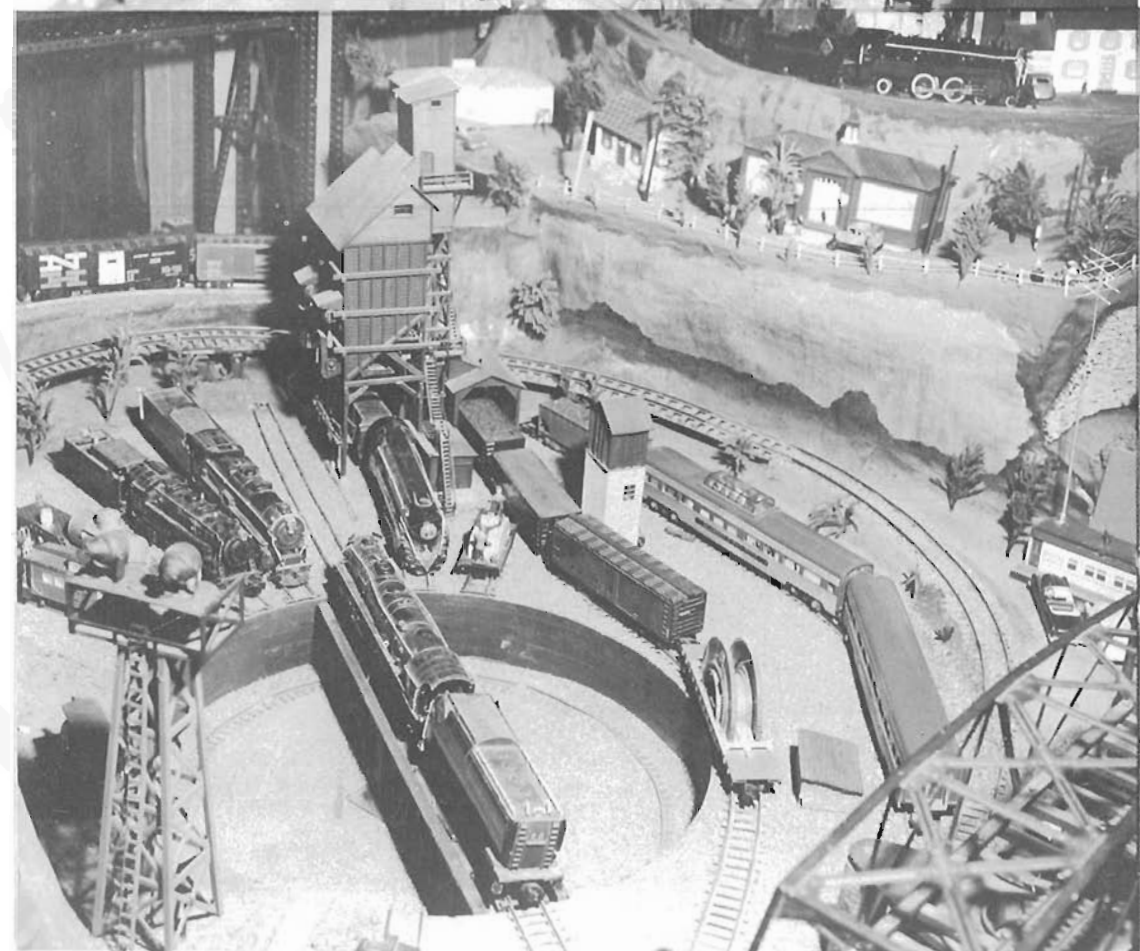
By D. Wayne Brow, November 11, 1964.

Engine was moved up temporary lead from the C.N.R. main line and steam cleaned; track was cut and moved over; and with the help of Edmonton Transit System winches, and Rocky Mountain Branch manpower, the engine was pulled slowly around the corner and into the Shop.











# THE DIAMOND

# T

a  
corporate  
history.

-- S. S. Worthen.

When the railroading "bug" bites, the consequences are just as unpredictable as a lottery. Seldom if ever can Johnny's proud parents tell what will happen after they make him a present of his first toy train. Twenty years later, he may be working as a signal man at a railroad terminal, may be writing books and articles on rail way history, or may have a cellar-full of model railroad equipment. In a very few instances, Johnny may have developed something really unique, - like the "Diamond T".

About 1948, Alan Whidden was living in St. Thomas, Ontario. Like most boys, Alan was busy going to school. Unlike some, he was intensely interested in model rail ways. But like all modellers, he was confronted with the problem of space to build his "pike". With a continuously expanding layout, a suitable location for it just had to be found, and, of course, ideally, it should be one that would permit the layout to be moved from place to place. What to do?

The school bus which carried Alan to and from school was a Diamond T bus. It was large and roomy. No stretch of the imagination was necessary to envision this bus as being the ideal place to construct a model railroad. It satisfied the requirement of being fully mobile and could be adapted to expanding facilities, and the provision of power to operate the layout. The chief advantage was the inside height, which would allow construction of benches with plenty of additional headroom. But alas, before Alan could make any plans to procure this worthy vehicle, it was scrapped. But Alan kept the name: "The Diamond T Railroad".

When Alan moved to Nova Scotia, the new house had no place to set up his now extensive model railroad. Then about 5 years ago,

Alan discovered another old International bus in a junk yard. The necessary steps were taken immediately to procure the body, and work was begun at once on its conversion to a mobile "basement". The vehicle posed many problems, not the least of which was headroom. To accommodate tall visitors, the roof was raised 5 feet. To overcome the hump of 12-inch-high rear axle, a 2 foot high cupola was designed. The bus cab was left in place, although plans developed later provided for changes to give additional interior space.

Since the overall appearance of the bus was now that of a caboose, an open rear platform was designed to accent the resemblance. A set of old single-bed head and footboards were used to make hand rails for the platform.

The reconstruction of the interior and exterior was carried out using tongue and groove paneling. The interior was finished in varnished wood, with a light ceiling and mahogany walls. The outside was painted all red, with yellow trim. The finishing touch was added by painting a black band along the bottom of the body.

The planning of the interior of the vehicle was a little more difficult. First of all, seats and a main electrical panel were added to the cupola, from which trains on the layout could be controlled. There followed sleeping accommodations and cooking facilities for the operator, and work bench for repairs to the rolling stock and motive power. And finally, plans were developed for the layout itself.

It was decided that the greatest interest could be created by having about 6 trains operating on the projected 6' by 12' surface. Steep grades, tunnels and bridges were planned. A street car line



and an incline railway were included, which together with the engine terminal and turntable would be clearly visible at the front of the layout. Next came complete and detailed scenery, strong enough to withstand the bumps as the "bus-oose" rolled along the highway. All of the principal buildings and many of the detailed trackside features were illuminated by peanut light bulbs.

Now "The Diamond T Railroad" was ready for showing to the public. Its reception by the hundreds of visitors at many exhibitions and county fairs in Nova Scotia was enthusiastic. One of the most interesting comments during this first year came from visitors who expressed disappointment not to see cars and locomotives from Canada's railways, - past and present or from Canada's street car lines. Alan was not discouraged. This project was started at once and is now coming along nicely. It included the construction of interesting cars from the Maritime Railway & Coal Co. (Joggins, N.S.), the White Pass & Yukon Railway, the Montreal Transportation Commission (an open observation car), and Canadian National Railways (Laurantien Division). Future plans include a model of a Canadian Pacific "Royal Hudson" and a Canadian National Railways 6100 class 4-8-4 locomotive.

The second year that Alan took the "Diamond T" travelling, he toured over 700 miles. This long-distance venture demonstrated conclusively that there were other facilities which were essential to an improved operation. These included a public address system, a tape recorder for internal descriptions and external announcements, an improved heating system and above all, a generating system to provide a steady, reliable power source.

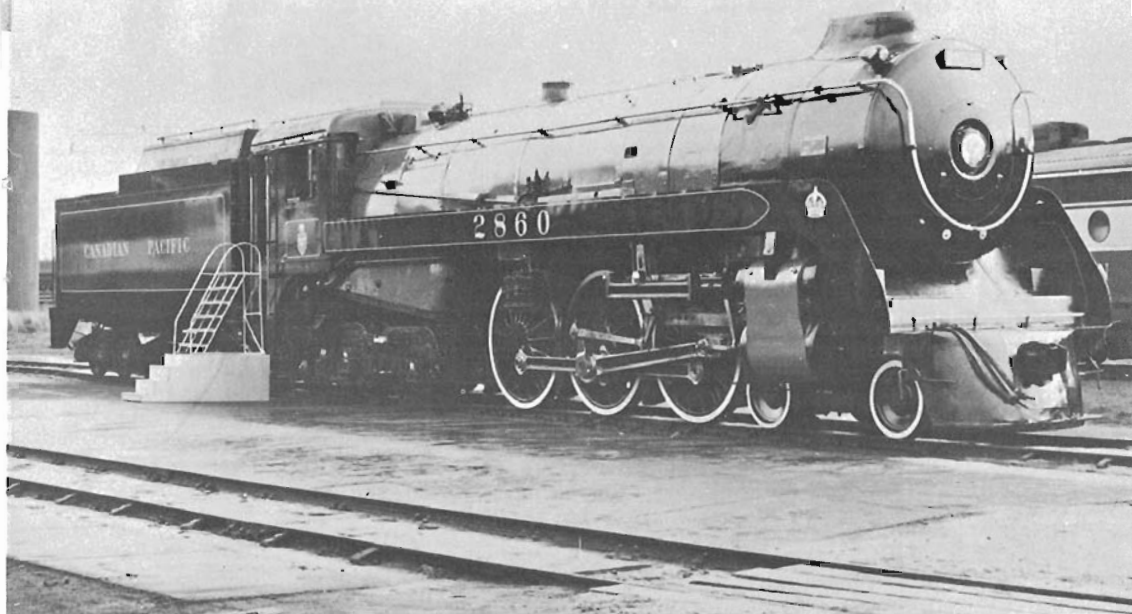
This year, Alan has been back in Ontario, working hard to accumulate sufficient capital to institute Phase II of the expansion

plan. Later in the year, he took a trip to Canada's West Coast, doing research on more Canadian rail roads and street car systems.

In the beginning, Alan started his model using "S" gauge. For the non-modeller, "S" gauge is 7/8" between the rails, or is 3/16 inch scale, where 1 foot on the locomotive being modelled is equivalent to 3/16" on the model itself. The main line of the "Diamond T" runs between two mountains, one at each end of the layout. 11% spiral grades inside the mountains raise the tracks to higher levels. Between these two peaks are the engine terminal facilities and principal stations.

The motive power roster includes 12 steam locomotives (2 Atlantics, 6 Pacifics, 2 Hudsons, 1 Northern, an O-8-O switcher) and an A-B-A Alco diesel. All of these engines, and most cabooses and passenger cars are lettered "Diamond T Railroad". However, as the change to Canadian railway equipment is made, each piece of equipment will be rebuilt to model a particular car or locomotive from a Canadian railway. For example, the "Diamond T" streamlined Pacific will be rebuilt to a C.P.R. Royal Hudson.

Rolling stock runs to about 35 freight cars and 15 passenger cars. The freight equipment represents cars of Canadian railways or U. S. railroads running into Canada. Maintenance cars and the "Big Hook" assembly comprise an additional 11 vehicles. Two of the most unusual models on Alan's "Diamond T" are the open observation car #4 of the Montreal Transportation Commission and a container car of the White Pass & Yukon Route. On the W.P. & Y., merchandise is shipped in 8'x8'x7' containers which may be carried by ship, rail, truck or sled train. The interest in Alan's "Diamond T" continues to grow. The Halifax station of the CBC has photographed the "Diamond T". A full-page article with illustrations appeared



Canadian Pacific Railway H-1 class 4-6-4 No.2860 (Built Montreal Locomotive Works, 1940), was recently sold to the Vancouver Railway Museum Association, and after repainting, was moved from Winnipeg to Vancouver and placed on display as part of a fund-raising campaign.

The Museum Association is sponsored by the City of Vancouver and reportedly plans the preservation of No.2860 under cover, along with C.P. engine #374, which was donated to the City of Vancouver in 1946 and now is at Kitsilano Beach. We presume that the Museum would also provide space for B. C. Electric Railway car #53, and the Onderdonk engine "Curly", both now at the Pacific National Exhibition Grounds in Vancouver.

Our friends in the West Coast Railway Association are assisting with this project, which may be expanded to include the exhibition of some of the W.C.R.A.'s rolling stock.



The Canadian Pacific Railway has also sold two more G-5 class 4-6-2 type steam locomotives. Engines 1238 and 1286 were recently shipped to Williamsport, Pennsylvania, consigned to their purchaser, Mr. George Hart of George School, Pa. It is understood that Mr. Hart plans to operate these locomotives in a tourist-type passenger branch line operation.



## Notes and News

-- P. A. Ganley



The big news this month is that Canadian National has acquired the six remaining full dome cars from The Milwaukee Road. As you probably recall, the railway purchased four of the cars last June, and they have been added to the consist of the two transcontinental trains through the rocky mountains. The Milwaukee Road have been using the present six cars on inter-city service between Chicago-Milwaukee and Chicago-Minneapolis. The four cars bought last year were not in use since 'Milwaukee' dropped its Chicago-Seattle, "Olympian Hiawatha" train. The cars are already in Winnipeg's Transcona shops for painting and overhaul and will be added to the consists of "The Super Continental" and "Panorama". It is not known as yet when the cars will be put into service but they will probably run between Winnipeg and Vancouver on the two trains. This way there will be nine cars in service with one as a spare. Canadian Rail will keep you posted on the latest news on the cars including the names assigned as soon as available.

As reported last month, CN's six 'Skyview' cars entered service on their maritime streamliners, "The Ocean Limited" and "The Scotian" early in the new year. Since two cars were ready before the end of the year, they were added to the consist of "The Chaleur" on December 23rd, between Montreal and Campbellton, N.B. and they ran on that train until it ceased operation on January 8. On January 9 another was ready and the three cars immediately were added to the consist of "The Scotian" between Halifax and Montreal. When the interior design work is completed on the other three cars about the end of January, they will be added to the rear of "The Ocean Limited". The cars have eight bedrooms but their most striking feature is the glassed-in rear lounge which seats 14 passengers. It has a free-standing bar carpeted in deep red. There are contemporary-styled arm chairs in charcoal grey grouped around cocktail tables and the settees are in olive green. Six "Cape" cars, which have 2 double bedrooms, 2 compartments and a buffet lounge are being renovated and will go into service on the two trains also. Modern-styled furniture, contemporary art and CN's new colour scheme will be featured in the lounges, similar to the redesigned club lounges on the transcontinentals.

In order to speed freight train operation and terminal handling, CPR is equipping its main line freight trains with radio transmitters and receivers for about \$1½ million. About 1,000 FM radios will be placed aboard diesel locomotives and cabooses across the system and another fifty base radios for terminals and division points.

Bathurst, N.B. is to have a new railway station in 1965 according to advice received by the town council from the railway. Construction on a new station in Newcastle is now underway and Moncton's new depot opened in 1963.



The Diamond "T". Continued from Page 12.

recently in the "S Gauge Herald". In 1961, Alan and his portable pike drove over 700 miles and visited 8 exhibitions and fairs.

Perhaps next year, with a new fully-powered unit, Alan Whidden will be back on the highway again, visiting eastern Canada's fairs and exhibitions. Alan says he can't publish a timetable, inasmuch as the "Diamond T" must have a very flexible schedule. However, be on

the watch for him! And when the "Diamond T" rolls your way, you'll be ready to visit this unique product of one man's ingenuity.

(Anyone interested in furthering the progress of the "Diamond T Railroad" may address the owner as follows:

Mr. Alan D. Whidden,  
Lower Wentworth,  
Cumberland County, N.S. )



## Latest information:

The management of the Diamond "T" Railroad announces the completion of merger arrangements with the manager of the Blue Diamond RR. (John Poulsen) of Cardston, Alberta. In the summer of 1965, the Diamond "T" will move from Nova Scotia to the Banff area, where a large model railway and model railway museum will be built.

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NOTES & NEWS - Last minute information

The Boston and Maine Railroad has withdrawn all of its passenger trains between White River Junction, Vt. and Boston, effective January 4th, having received prior approval from the Interstate Commerce Commission. This cut effects two Montreal-Boston trains, CPR No. 31 and 32, "The Alouette", which runs as far as Wells River, Vt. on CP, thence on the B&M, and CN-CV Nos. 75 and 76, "The Ambassador", which runs to New York City, with connections at White River with B&M. There is now no rail service to Boston from Montreal, night service having been withdrawn a few years ago. The question now remains how can people travel by rail to Boston. Passengers may take CN's "The Washingtonian" to Springfield and connect with New Haven's No. 6 for Boston. It is possible that CN will make alterations to their schedules in the spring so that passengers may connect with the Boston & Albany at Springfield for Boston. No. 76 misses the connection with the B&A by nine minutes.



"I heard the railroad introduced these low fares to prove to the government that passenger business was dead . . . so today we got a 22-car train."

## CANADIAN RAILROAD HISTORICAL ASSOCIATION

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