

NOTICE OF MEETING

THE REGULAR MEETING of the Ottawa section of the Canadian Railroad Historical Association will be held on tuesday, 9 September at 8 pm in the Museum of Science and Technology. Entertainment will consist of refreshments, preceded by a talk on the Steam Locomotive by Mr. Duncan DuFresne with illustrations, and followed by slides taken by members in the course of their summer rail adventures. In respect of the last item, members are asked to take their best slides to the meeting.

FALL FOLIAGE
EXCURSION

OCTOBER 5

OTTAWA
MANIWAKI

This issue of Clearboard is being distributed to all who have enjoyed past excursions operated by the Ottawa CRHA group (in addition to our regular subscribers) because everyone who is captivated either by Canada's colourful autumn or by CP Rail's colourful Budd Rail Diesel Cars will want to know about this year's trip.

CP RAIL DAYLINER will leave Ottawa Union Station at 8:00 eastern daylight time and be back at 16:30. This schedule will permit a leisurely trip through splendid Gatineau foliage, with plenty of opportunity to pause for photographs. Lunch can be obtained close to the Maniwaki station, but many feel it is more picnicky to take along a lunch packed at home. DON'T MISS THIS ONE.

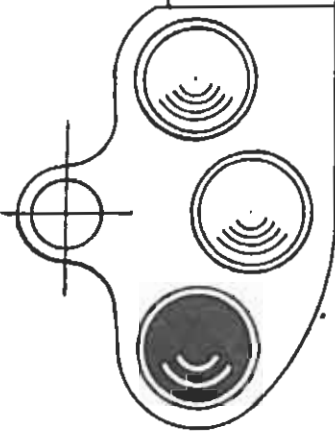
C.R.H.A., c/o Hobbyland, 93 O'Connor Street,
OTTAWA, CANADA

Please send tickets for the excursion on SUNDAY OCTOBER 5, 1969 as follows:

.... adults at \$9.50 each	\$.....
.... children(5-11 yrs.)\$5 each	\$.....
Total remittance payable to Ottawa Section -- CRHA	\$.....

MY NAME AND ADDRESS ARE PRINTED ON THE BACK

CLEARBOARD



PUBLISHED

797 Eastvale Drive
OTTAWA 9, ONTARIO

LOVE THE AWESOME DRAMA OF SPEEDING STEEL ON STEEL?

If you do, the Ottawa CRHA Restoration Committee wants you. Here is your chance to experience the thrill of flashing your steel scraper across the steel flank of your steam crane. See cruddy old rail equipment become valued railway relics before your very eyes. Become an active ferroequinologist. Leave your mark (and probably your knuckle skin) on Canada's rail history. Doug Campbell at telephone number 729-1542 will be pleased to tell you when the next convivial work meeting will convene. Call him now--please!

STEAM EXCURSION TO VISIT MUSEUM?

A circular issued by Iron Horse Tours Reg'd, P.O. Box 44, Station S, Montreal 206, advertises an excursion behind CN steam locomotive 6218, to be held on Saturday, September 20. The Montreal-Ottawa-and-return excursion calls for a two-hour visit to the National Museum of Science and Technology, presumably in the early afternoon. The museum's ex-Stelco 0-6-0 is expected to be in operation at the museum site.

BEAVER CRESTS

Canadian Pacific, as long as supplies last, has available cast aluminum beaver crests which were removed from stainless steel passenger cars after Canadian Pacific Railway became CP Rail. CP sells the crests for \$10 each plus provincial sales tax (an extra 50% for Ontario buyers). The buyer is expected to pay transportation charges from Montreal. There might be no more left by the time you read this, but readers interested in obtaining a very tangible memento of a crest that long dominated the Canadian rail scene should find out by sending a remittance payable to Canadian Pacific to Mr. O.S. Lavallée, Public Relations and Advertising Department, Canadian Pacific, Room 294 Windsor Station, Montreal 101, Canada. (I have one, and since I repainted it with enamel available at Hobbyland, it looks real swell even though my wife will permit it to hang only in the downstairs W.C. On reflection, perhaps that's the proper place anyway in view of the fact that this insignia has indeed gone down the drain. -- Ed.)

THURSO & NATION VALLEY EXCURSION BLESSED WITH PERFECT WEATHER

The recent excursion over the Thurso and Nation Valley Railway, sponsored by the Ottawa CRHA, was the best yet. All who spent the day as guests of the Railway are greatly indebted to Thurso Pulp and Paper, and particularly to those employees who sacrificed a Saturday to our enjoyment.

WILL THE REAL "JOHN MOLSON"
PLEASE STEAM FORWARD ?

Recently, a copy of specification No. GS 4310, dated November, 1968 and issued by Kawasaki Rolling Stock Manufacturing Company Limited, Kobe, Japan, appeared on our desk. It covers the construction of a working 2-2-2 steam locomotive and tender for the Canadian Railroad Historical Association.

The locomotive is to be named "John Molson" - a logical choice as it is understood that its purchase price of \$75,000 is to be met by Molson's Brewery Limited of Montreal. The price is f.o.b. Kobe, Japan; to be provided for is transportation from Japan to Delson, though it is understood that it may be loaned for display at Expo '70 in Osaka in exchange, presumably, for free transportation to Canada when that event is over in the

autumn of next year.

According to the specification, the locomotive and tender will have the following maximum dimensions:

Height overall:	12'9 $\frac{1}{2}$ "
Length over buffers:	34'1 $\frac{3}{4}$ "
Maximum width:	7'9 $\frac{1}{2}$ "

The total weight in working order will be about 23 tons.

The locomotive is to be used "as ornamental, educational and cultural exhibit and operating for shunting services.....at your... Museum. "

As the locomotive and tender are evidently intended to represent the early Canadian steam locomotive "John Molson", we showed the specification and accompanying plans to Mr. Omer Lavallée of Montreal who, as many know, is an authority on Canadian rail transportation; one of his specialties is the period before Confederation. Here are his comments:

Three locomotives were built for Canadian railways in 1848 and 1849 by the Dundee, Scotland firm of Kinmond, Hutton & Steel, who used the title and style "Wallace Works".

The first two came in 1848 and were delivered to the Montreal & Lachine Rail Road. Named "James Ferrier" and "Montreal", they were the second and third locomotives, respectively, to be acquired by the M. & L.R.R., whose first locomotive, used at the opening of service in November, 1847, was a Norris 4-4-0 named "Lachine".

The third locomotive from the Wallace Works was delivered in 1849 to the Champlain & Saint

Lawrence Rail Road, and was that company's fifth locomotive; it was named "John Molson" after the Montreal brewer who was actively interested in rail and water transportation early in the Nineteenth Century.

Subsequent corporate evolution brought both lines into the Montreal & Champlain Rail Road in 1857, and the three Kinmond locomotives are listed among those reported as belonging to this company in the "Report of Samuel Keefer, Inspector of Railways" (for the Province of Canada) for 1859 and 1860.

The Keefer reports give us the only first-hand written account of mechanical details of these

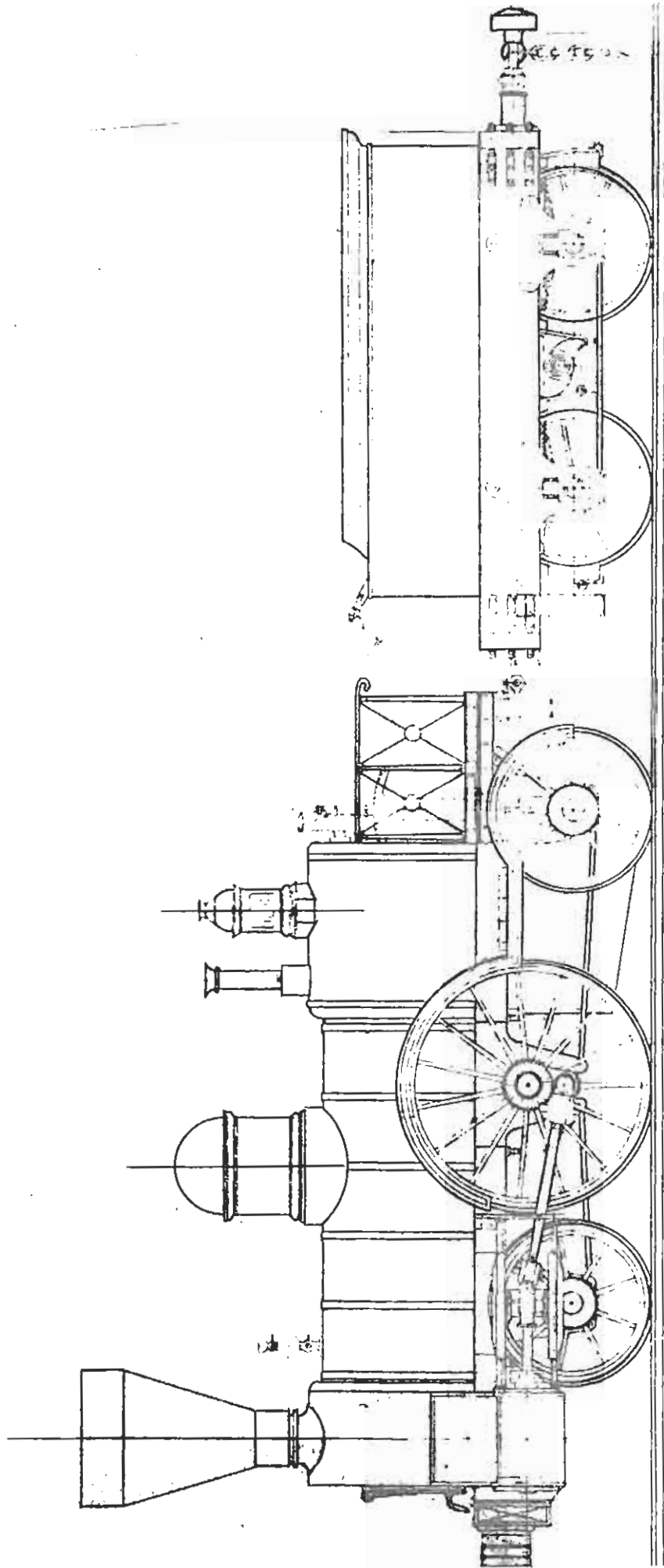


Figure 1: The C.R.H.A./Kawasaki version of the locomotive "John Molson".
(From Kawasaki Rolling Stock Mfg. Co. specification)

locomotives, about which probably less is known than about any of the other locomotives used in the early years of railroading in Canada.

The wheel arrangement is an example of this. Apart from the fact that all three locomotives had a single pair of 66" driving wheels, the precise arrangement is not known, but was probably 2-2-2 or 4-2-2. The recollections of veteran railwaymen interviewed by the late Mr. John Loye at the turn of the century, indicated that all three locomotives were 4-2-2. From this same source came the information that the "John Molson" was a

rather larger locomotive than the two Lachine engines. It would be foolhardy to base conclusions on the unsubstantiated recollections of veterans, sincere though they may be; but in this case, Keefer fully supports the contention concerning the larger size of the "John Molson" by reporting a boiler heating surface fully 14% greater than the Lachine engines and, not unexpectedly, a larger tender.

In the design of the Kawasaki locomotive (Fig. 1), the facts given in the Keefer reports have been adopted only in part, as the following comparison will show:

	Source: "Report of Samuel Keefer, Inspector of Railways," 1859, 1860	Source: Kawasaki Specification
Particulars:	Locomotive JOHN MOLSON	Locomotives JAMES FERRIER, MONTREAL
		C.R.H.A. 2-2-2 locomotive.
Connections	Outside	Outside
Driving Wheels	1 pair, 5'6"	1 pair, 5'6"
Cylinders	14x20"	14x20"
Tubes - Number	109	109
Diameter	2" inside	1 $\frac{3}{4}$ " inside
Boiler length	10'6"	10'6"
Heating surface -		
Boiler	599.2 sq.ft.**	524.3 sq.ft. **
Firebox	?	?
Total	?	?
Water capacity,		
tender	1,600 gals.	1,200 gals.
		419 gals.

Notes: * Not given in specification, estimated from drawing.
 ** Actually slightly greater, as exterior diameter of the tubes is not known.

It is not known why the design of the Kawasaki locomotive did not embody the known boiler length of 10'6", instead of one approximately two feet shorter,

which presumably originates in mechanical data existent in Scotland for another Kinmond-built locomotive which was never used in this country. It seems

axiomatic that, in reconstruction or restoration, the known facts are embodied at the outset and the unknowns later supplied by other references.

To apply the longer, known boiler length to the design of the Kawasaki engine (which is attributed to a Mr. W.G. Small), is to introduce, to my mind at least, a plausible argument for a 4-2-2 wheel arrangement. Mr. Loye's researches among veterans who recalled these engines indicates that they were 4-2-2 for the very logical reason that fixed wheelbase locomotives were prone to derailment on track which could not be maintained to contemporary British standards because of extremes of temperature acting on the roadbed.

Part of the basis for the Kawasaki design appears to be a drawing (Fig. 2) by J. Walker, purporting to show one of the two 1848 Lachine railway Kinmond engines on the occasion of the opening of that railway in November 1847. This identification casts doubt on the authenticity of the drawing, since the two locomotives were not put into service until July and August of 1848, according to contemporary newspaper accounts, and could not therefore have officiated at the opening of the railway in the previous autumn. Besides, it is known that an American Norris-built 4-4-0 named "Lachine" was present for the opening day; in the following year it is believed to have been lost in a derailment in Turcot swamp.

The Japanese locomotive also assumes that the "John Molson" was identical to the two Kinmond engines on the Lachine line, an assumption which is not supported either by Keefer or by Mr. Loye's researches.

An interesting provision in the Kawasaki specification contemplates that "...The maximum speed on the level shall be 20 km/h, (12 mph) because of poor balancing according to the lack of driving wheel's balancing weights. These may cause injurious hammering to rails and intolerable vibrations for crews." Some builders resorted to the use of lead in hollow spokes for counterbalancing; one wonders why this practice was not followed in this application.

Finally, one may wonder whether a locomotive built for service in Canada in 1849 would really not be provided with a cab or a pilot of some type. Even the engraving purporting to show the Lachine railway inauguration shows a locomotive with a rudimentary wooden cab. The Japanese engine makes provision for india-rubber buffers on the pilot beam but British-style spring buffers at the rear of the tender. The method of coupling in common use on Canadian railways at this period was a primitive chain-and-hook arrangement, with the cars being prevented from running together by two wooden "bunters" or bumping blocks which were placed at 36" centers on the ends of cars. The india-rubber buffers on the front of the locomotive were merely a refinement of these unsprung blocks; probably the rear of the tender had them as well. But there is no evidence whatever to support the use of British-style spring buffers in Canada at this or any other time, save on one or two mining lines in the Maritime provinces.

Summed up, the Kawasaki engine, given corrected boiler length and equipped with an elementary cab, coupled to a much-larger tender which is provided with

the same type of buffers as the front of the engine, would come much closer to representing what we know of the three Kinmonds used in Canada, though on the assumption, not substantiated, that they were all of the 2-2-2 wheel arrangement.

As it stands, however, the simplest course is to provide it with a straight stack, and not identify it with Canada at all, presumably, as part of the process, offering apologies to the well-intentioned gentlemen of Molson's Brewery who, one would assume, would not have agreed to support such a project without

receiving assurances that the replica would at least conform to the known facts, few as they are.

I make the foregoing commentary without prejudicing my personal view that the causes of Canadian railway history would have been much better served had the \$75,000 been devoted to a building to house a part of the existing neglected and decaying collection. In my opinion, the acquisition of a costly replica at this time and in the present context, can only be described as frivolous.

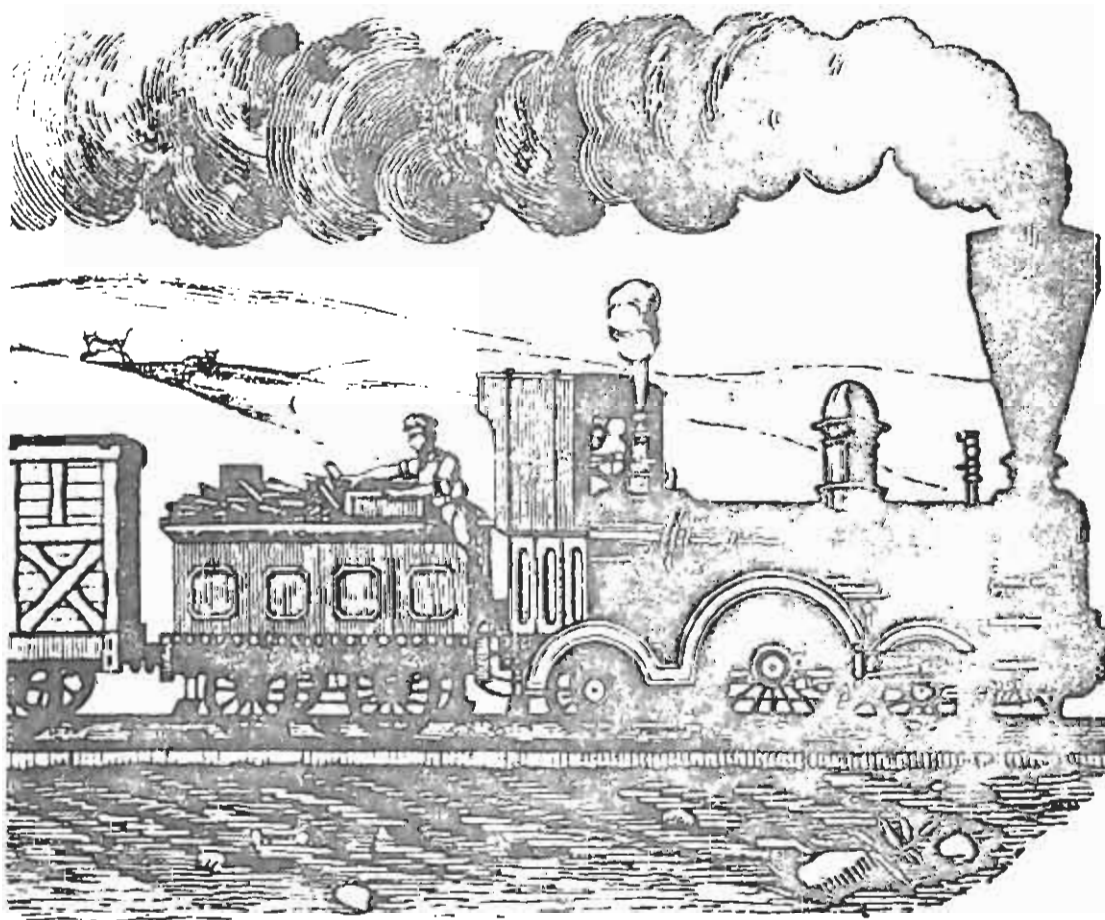


Figure 2: Part of the Walker engraving, supposedly contemporary, showing what appears to be an "americanized" Kinmond 2-2-2, presumably the "James Ferrier" or "Montreal", of the Montreal & Lachine Rail Road.
(Collection Omar Lavallee)

NOTES AND NEWS

...information supplied by A. Clegg

- ★ CN is expected to apply for abandonment of most of its extensive passenger network, and to ask for subsidies to cover losses on the routes it is ordered to continue. Since 1962 CN has cut fares, added new trains, and promoted service extensively and imaginatively. Passenger revenue miles doubled but costs of operating aging equipment at high labour rates have risen faster than passenger revenues. Dr. Robert Bandeen, CN Vice-president for Corporate Planning, surprised a Toronto audience recently by admitting that CN's experience proves that it can no longer hope to make money, under foreseeable circumstances, on any of its inter-city segments on the transcontinental run west of Ontario nor in the Maritime provinces. Routes in the well-populated strip running from Quebec City through Montreal and Toronto to Windsor, are making money or could make it with new rolling stock, adds Dr. Bandeen. A former CN executive complains that the prospect of early subsidies is prompting CN to give up too quickly on some lines. He also claims that many of CN's most dedicated pro-passenger executives have bailed out in the face of top management indifference or have been given other jobs.
- ★ When the last Newfoundland passenger train pulled out of Port aux Basques on July 2, most of the people in the terminal were scurrying to board one of the four buses also departing. CN says that last may, buses carried 11,273 passengers while 1,951 people went by train. By operating buses and "The Caribou" simultaneously for a few months, CN proved its point that bus service would be superior and by the time the train bowed out there were few around to cry. Small wonder: travel time by bus is 14 hours and 15 minutes; by train it was 22 hours. Sure would be fun to spend 22 hours once more behind those narrow gauge steam locomotives though.
- ★ Ex-British Rail passenger coach E3733 is now owned by the British Columbia government and operates on the Fort Steel Railway, a two-mile-long tourist line in the Kootenays. The 33½-ton coach was built at Derby in 1954. It has seating for 48. The coach will be hauled by "Dunrobin", a 74-year-old 0-4-4 tank engine, once the property of the Duke of Sutherland. Last year "Dunrobin" hauled 20,000 passengers over the government-owned line. That figure would have been higher but the sole item of rolling stock prior to the arrival of E3733 was a tiny two-axle ducal saloon. The British Rail insignia will be left on the side of E3733.

- ★ The Alberta government's \$100 million-plus Alberta Resources Railway is hauling freight into the South Peace but has yet to carry anything out. The railway is operated by CN on lease from the province and was officially opened several months ago. The line likely will not take freight out of the area until the McIntyre Porcpine mine goes into operation early next year. Once the coal mine is in full operation, it is estimated that the AAR will haul three 85-car trainloads of coal (100 tons in each car) weekly.
- ★ An experimental laser track inspector that can detect foreign objects as small as a walnut on a roadbed has been demonstrated by the US Department of Transportation and RCA. The device developed by RCA sweeps the track with laser beams, and when objects are detected a signal is sent to a central facility. The system is designed as a safety aid for future trains traveling at speeds of from 300 to 500 miles an hour. An operational system could scan a 178-degree arch to cover 600 feet on either side of the laser for a total of 1,200 feet. This device seems to represent important progress toward crewless trains, also.
- ★ CP Rail recently opened a \$3.6-million "one-spot" car repair shop at St. Luc Yard, near Montreal. The repair shop is set up so the job can be brought to the tools rather than the tools to the job. The facility can handle from nine-hundred to one-thousand cars a week. CP has three other "one-spot" shops. They are at Toronto, Winnipeg, and Coquitlam.
- ★ A new railroad car designed to carry thirty sub-compact autos by placing them nose-down on side panel ramps is the result of a joint research effort by the Southern Pacific Railroad and the General Motors Corporation. The car, called Vert-A-Pac, will carry GM's new sub compact auto standing on end. (That is, the autos will stand on end--not the rail car.) Thus the 89-foot car will carry twice as many of the autos as would a standard tri-level. To overcome problems of standing autos on end, four simple temporary seals were designed to prevent leakage of oil, gasoline, and water. Well, it's back to riding the rods.
- ★ Canadian National and Canadian Pacific want to buy the land on which Union Station in Toronto stands. The nine-acre site is owned by Toronto and has been leased to the railways for sixty-four years. The current annual rent is \$55,000, and now the railways want to buy it for their one-billion-dollar CN-CP development project. This would involve demolition of Union Station to make way for six office towers.
- ★ CN recently opened a new \$300,000 piggyback terminal in Sudbury. The terminal is designed to handle express container freight. During the opening a CN Vice-president said that, "low cost, efficient land transportation is the backbone of our national system. Railway freight operations provide that service...." (All I know is that whenever I receive a package via CN express, they make me arrange to have it transported the five miles from Alta Vista station whereas all other forms bring it to the door - Ed.)