

## THE RAILWAY & SHIPPING WORLD,

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The Canadian Roadmasters' Association,  
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NEXT ANNUAL MEETING of the Grand Council in Mont-  
real, Jan. 1903.

### Niagara Frontier Summer Rate Com- mittee.

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for concrete, and for the masonry. Piers 6  
and 7 were in the main channel in 14 and 16 ft.  
of water respectively, and as the bridge was  
just at the foot of the Grenville rapids and the  
current very strong, it required great care  
and careful handling to get them set accurate-  
ly in place. The substructure was begun in  
July, 1899, as soon as the water fell sufficient-  
ly to allow of it, and the whole of the masonry  
and foundations were completed before Christ-  
mas of that year. The stone was quarried  
and cut about eight miles up the river, near  
L'Orignal, and was brought down to within  
a short distance of the work on scows, and  
then hauled by teams from there. There  
were 2,323 cubic yards of masonry, and 799  
cubic yards of concrete in the main river  
bridge. The western approach consisted of  
a timber trestle 1,320 ft. long, commencing  
with a height of 54 ft., three decks, and de-  
scending on a 1% grade till a height of about  
20 ft. was reached. The main street of  
Hawkesbury is crossed by two I beam spans  
of 20 ft. each, supported at the ends on tim-  
ber bents, and in the middle by a steel one.  
From the end of the trestle a short embank-  
ment leads to the Hawkesbury yard, beyond  
which is situated the junction with the  
Hawkesbury branch of the Canada Atlantic  
Ry. The total weight of steel in the Hawkes-  
bury bridge is 1,727 tons.

The station buildings are generally frame  
structures on cedar posts in two stories, with  
dwelling for the agent, and freight shed under  
the same roof. The station at Joliette is a  
much finer building than the others, built of  
pressed brick on a stone foundation, with a  
separate freight shed of wood. Five tanks  
were erected on the 88 miles of new line, of  
40,000 gallons capacity each, with steam  
pumps under the tanks, except in the case of  
the one at Joliette, which is supplied from the  
town waterworks. The foundation at Joliette  
was of rubble masonry with cut stone caps,  
but the others were of concrete, which proved  
to be cheaper and just as good. There is a  
four-stall wooden engine house at Hawkes-  
bury with a turntable in front, and the tank is  
set on 24 ft. posts so as to give sufficient  
head to supply the engine house with water  
for washing engines, etc. The turntable is  
65 ft. in length. It is on roller bearings, and  
is so balanced that a heavy engine can be  
readily turned by one man. The pivot founda-  
tion is a block of concrete set well below the  
frost into hard boulder clay; the track ap-  
proaches are of cribwork filled with stone.  
There are four level crossings with other rail-  
ways on the line. The first of these is with  
the C.P.R. St. Gabriel branch, near Joliette;  
the next with the Labelle branch near St.  
Jerome, and the 3rd with the C.P.R. north  
shore main line near Lachute. These cross-  
ings are protected by interlocking and  
derailing apparatus. The fourth crossing  
is with the Carillon and Grenville Ry.  
near Grenville. This railway is an un-  
quated line of 5 ft. 6 in. gauge, open-  
ated, in the summer only, in connection  
with the Ottawa river boats. The cross-  
ing is protected by four interlocking distant  
signals, but has no derails nor home signals.  
The general arrangement of signals, etc.,  
at these crossings is the same, viz., derails  
500 ft. from the diamond, home signals 50 ft.  
farther on, and distant signals 1,200 ft. from  
the home signals, or 1,750 ft. from the cross-  
ing. A guard rail of 56 lbs. steel is laid from  
each derail for a distance of 400 ft. towards  
the diamond to prevent derailed trains from  
running off the ties and being ditched.  
The ties are of iron, and are spaced at  
intervals averaging about 1,500 ft. in length  
and are put in at all stations, with additional freight  
sidings at the more important points.  
The track was laid with 70 lb. rails of Am. Std.  
C.E. section laid broken joints, with 24 in.  
angle bars and 4 bolts to the joint. The  
angle bars weighed 48 lbs. a pair, and the  
bolts and nuts 17 ozs. each. The spikes were