

Attempt to Destroy Bridge Over St. Croix River.

Early on the morning of Feb. 2, Werner Vanhorn, (or Van Horn, or Von Horn), who subsequently claimed to be a German army officer, attempted to destroy by dynamite, the C.P.R. bridge over the St. Croix River, between St. Croix, N.B., and Vanceboro, Me. The bridge, which is designated no. 5.6, Brownville Subdivision, is 5.6 miles west of McAdam Jct., N.B., and is a 150 ft. through truss span. Originally it was a simple truss span, with the usual 2 trusses and floor beams and stringers. In 1906 the span was reinforced by the addition of similar trusses outside each existing truss, supported on spare space on bridge seats. New special floor system of the required capacity was also put in.

The attempt, which was made at the Canadian end of the bridge, affected the inner north truss, which had the end post damaged, and the adjacent stringer crippled, besides some other small damage. The substructure was not damaged. One passenger train was delayed 20 minutes, after which cars were pushed over without locomotives. A small amount of falsework was put under the damaged end, after which trains passed over under slow orders. Permanent repairs were effected within a few days. We are indebted to P. B. Motley, M. Can. Soc. C.E., Engineer of Bridges, C.P.R., for the information about the bridge, structure, etc.

After making the attempt Vanhorn returned to Vanceboro, where he had made his temporary headquarters, and was arrested there. On a charge of damaging property there by the shock of the explosion he was sentenced to the county jail at Machias, Me. An application for his extradition to Canada was made immediately by the British Ambassador at Washington, and is still under consideration.

After the attempt the C.P.R. placed special guards at the bridge, and on Feb. 16 a military guard was placed at the New Brunswick end, and an application has been made to the U.S. Government to similarly guard the Maine end.

Proposal for Increased Passenger Fares in United States.

A campaign has been started in a number of Western States to obtain higher passenger fares on the railways. It is being carried on by the principal railways centreing on Chicago, and was inaugurated, so far as Illinois is concerned, on Feb. 3, when a committee of railway presidents, with C. H. Markham, of the Illinois Central, as chairman, had a conference with the Governor of the State. The committee applied for an increase in the passenger fares on the several lines from 2 to 2½ cts. a mile. The statement made to the Governor on the part of the railways sets out that for some years the railways have been facing a condition of stationary or declining rates for their services, and a steadily increasing cost of operation. The investigation of the Interstate Commerce Commission into the subject of railway operation and revenue is referred to. At this investigation, the generally unprofitable character of railway passenger service was emphasized to such a degree that the commission was impelled to give it special consideration, although the question of passenger fares was not specifically before that body. As a result of the findings of the commission upon passenger fares, the railway presidents are presenting the facts to the public and requesting that action be taken through the different State legislatures to obtain the relief suggested by the commission. The

Interstate Commerce Commission has authorized 2½ cts. as an interstate rate, and in the New England States legislative action is being taken to grant a similar rate within the several States. It is proposed to present a similar bill in Illinois.

In preparation for the presentation of this bill, the railways are circulating petitions throughout the State; and considerable statistical literature bearing on the subject, and are arranging for the holding of meetings all over the State. The petition quotes the following from the report of the Interstate Commerce Commission:—"The travelling public is giving expression to its demands for better service, better accommodation, and for the adoption by carriers of all devices that make for safety. A public that demands such service cannot reasonably object to the payment of a reasonable compensation therefor."

Similar campaigns are in progress in Ohio, Indiana, and Michigan, whilst in Nebraska an increase to 3 cts. a mile is asked; but a bill now before the Legislature proposes to increase the rate to 2½ cts.

Locomotive Feed Water Heating.

At a meeting of the American Society of Mechanical Engineers recently, in discussing a report on "Steam Locomotives of Today," H. H. Vaughan, Assistant to Vice President, C.P.R., Montreal, said that considerable has been heard as to the experiments made on feed water heating by Mr. Trevithic on the Egyptian railways, in which he used not only exhaust steam heaters, but waste-gas heaters in the front end. With the latter he has been able to put the water into the boiler at 230 deg. and obtain 20% economy. The Central of Georgia Ry., has done a little with feed water heaters, as well as the New York Central,

the Canadian Pacific, and the Central Rd. of New Jersey.

"On the C.P.R. we have been experimenting with feed water heating for six years. We have tried open heaters in a tank with fairly good satisfaction. We also applied exhaust steam injectors, and got fair results. We have since been advised by the manufacturers that our troubles were because of our having applied too large size an injector for ordinary work on the locomotive. However, I am of the opinion that while the exhaust steam injectors would work fairly well under certain conditions, yet there would be some difficulties where the amount of water consumed is large. We found on experiments with an open heater that the temperature obtained was due to the exhaust steam from the feed pump, so, assuming a temperature of 200 deg. in the feed water, it would really be the equivalent of 160 deg. when the water was put into the boiler by an injector with 100% efficiency. By heating the water at the injector suction to 120 deg., we got 6% economy, and used injectors as against 10 or 12% economy with the feed water heater, and using a pump. We thought 6 or 7% with the injector was preferable to 10 or 12% with the pump, and we have been experimenting on that in recent years with reasonable results. Lately we have experimented with an ordinary closed feed water heater, and it is giving fair results.

"This is a subject which American railway people have largely neglected. It has the advantage of not only saving in coal, but increasing the capacity of the boiler. In careful experiments we found an economy of 12% in the use of the heater, and we feel that that justifies our going into the device more thoroughly. I feel that we will see feed water heating coming into larger use, not only with exhaust steam, but with waste gas."

Grain in Store at Terminal Elevators, Interior Terminal Elevators and at Public Elevators in the East,

Week ended Feb. 11, 1915.					
	Wheat. Bush.	Oats. Bush.	Barley. Bush.	Flax. Bush.	Totals. Bush.
Fort William:—					
C.P.R.	111,154	45,560	11,778	3,547	172,039
Consolidated	311,149	148,697	31,425	90,963	582,234
Empire Elevator Co.	337,328	183,538	26,392	120,155	667,413
Ogilvie Flour Mills Co.	543,316	79,588	18,312	.....	641,216
Western Terminal Elevator Co.	258,532	112,054	7,226	256,234	634,046
G.T. Pacific	569,804	326,388	19,754	87,793	1,003,739
Grain Growers' Grain Co.	880,378	277,775	37,826	.....	1,195,979
Fort William Elevator Co.	489,408	111,291	34,571	54,519	689,789
Eastern Terminal Elevator Co.	128,711	119,565	11,306	.....	259,582
Port Arthur:—					
Port Arthur Elevator Co.	1,197,051	475,072	40,736	84,234	1,797,093
D. Horn & Co.	19,539	8,669	.....	37,479	65,687
Dominion Government Elevator.	218,347	54,199	3,440	76,371	352,357
Total Terminal Elevators	5,064,717	1,942,396	242,766	811,295	8,061,174
Saskatoon Dominion Government Elevator					
	472,844	634,402	12,644	454	1,200,344
Moosejaw Dominion Government Elevator					
	1,145,796	320,604	13,525	.....	1,479,925
Total Interior Terminal Elevators					
	1,618,640	955,006	26,169	454	2,600,269
Depot Harbor					
	.....	96,200	.....	.....	96,200
Midland:—					
Aberdeen Elevator Co.	355,471	130,731	.....	.....	486,202
Midland Elevator Co.	.....	.....	.....	.....	.....
Tiffin, G.T.P.	416,225	662,881	.....	.....	1,079,106
Port McNicol	1,784,827	495,478	.....	75,330	2,355,635
Goderich	602,020	218,637	.....	.....	820,657
Goderich	*113,441	.....	.....	.....	113,441
Collingwood	22,014	.....	.....	.....	22,014
Harbor Commissioners, Quebec	3,862	110,322	.....	.....	114,184
Kingston:—					
Montreal Transportation Co.	15,076	.....	.....	.....	15,076
Commercial Elevator Co.	32,488	66,664	.....	.....	99,152
Port Colborne	432,702	240,055	117,366	†30,121	820,244
Prescott	.....	.....	.....	.....	.....
Montreal:—					
Harbor Commissioners no. 1	193,678	.....	9,067	.....	202,745
Harbor Commissioners No. 2	103,785	610,609	24,904	.....	739,298
Montreal Warehousing Co.	3,273	148,226	20,369	.....	171,868
West St. John, N.B.	392,687	560,007	.....	.....	952,694
Total Public Elevators	4,471,549	3,339,810	171,706	75,330	8,088,516
Total quantity in store	11,154,906	6,237,212	440,641	†30,121	18,749,959
*Grain afloat in vessels. †Corn.					