

don Scottish, and after nine months in France, received a commission in the Royal Scots Fusiliers, in Nov., 1916. He received the Military Cross in May, 1916, for conspicuous determination when in charge of a working party, when with 12 men he captured and brought in as prisoners over 40 armed enemies. At the time of his death, he was acting as captain, during the absence of an officer of that rank.

Major James Arnold Delancey, B.Sc., McGill University, A.M.Can.Soc.C.E., of Vancouver, who has been killed in action, was born at Middleton, N.S., July 15, 1880. He was Assistant Engineer, United Fruit Co., Bocas del Toro, Panama, from May, 1909, to Oct. 1910, and engineer in charge from Oct. 1910 to Jan. 1, 1911. From Jan. 1, 1911 to Feb. 5, 1912, he was Chief Engineer at Paris for United Fruit Co., Bocas del Toro, Panama. Subsequently he did surveying work in British Columbia, including city surveys in Vancouver. When war broke out he returned to his native province of Nova Scotia, enlisted and went overseas as captain and adjutant in an infantry battalion. He was mentioned in dispatches and awarded the Military Cross.

Major John Campbell Galway, B.A., B.E., A.M.Can.Soc.C.E., who has been killed in action, was born at Southmolton, Devonshire, Eng., June 18, 1876. In June 1889 he graduated in engineering and arts at the Royal University of Ireland. Subsequently he was agent and engineer for Fisher & Lefarm, Belfast, Ireland, on a Belfast water works contract, including heavy concrete work and tunneling with compressed air and with shield and cast iron lining. He then laid a second line of 44 in. on the Manchester Corporation's Thirlmere aqueduct syphons. For the same firm he completed the Great Southern & Western Ry. of Ireland's Cashel branch. In 1906 he was a surveyor on the Liverpool Dock Board staff. On coming to Canada in 1907 he was employed as a transit man in the C.P.R. Irrigation Department. Then he was in charge of engineers in construction of camps of the New Canadian Co., Ltd., building the Atlantic, Quebec & Western Railway in the Gaspé Peninsula and then became chief of a survey party on that line. In April, 1912, he was appointed Resident Engineer on Eastern Lines, Canadian Northern Ry., and was shortly afterwards appointed a division engineer, remaining in the company's service until Dec. 1913, when he left on account of the completion of construction. He was subsequently in the Ottawa Water Works Engineering Department until Sept. 1915, when he received a commission as a lieutenant in one of the Canadian pioneer corps. He was soon promoted to captain, and a short time before his death was gazetted a major. He was probably killed a few days after the storming of Vimy Ridge, as A. F. Stewart, Chief Engineer, Eastern Lines, Canadian Northern Ry., received a letter from him on May 8, describing that operation.

### British Columbia's Relationship with the Canadian Northern Pacific Railway.

The B.C. Minister of Railways presented to the Legislature, on May 14, a report of the auditors engaged by the government to check up the payments made to the C. N. P. Ry., out of the proceeds of the provincially guaranteed bonds. The report states that to Dec. 31, 1916, there

had been paid to the company amounts in excess of the proper value of work done, as follows: On main line, \$2,426,927.81; on branch lines, \$2,127,519.29; on terminals, \$1,117,117.52; total, \$5,671,564.62. These figures, the report states, are confirmed by the Attorney General's Department.

Subsequently a resolution was passed calling for all correspondence and memoranda dealing with the relations between the C. N. Ry. and the B.C. Government relating to the construction of lines on Vancouver Island.

### Railway Rolling Stock Notes.

The British Government has ordered 50 six-wheel switching locomotives from the Baldwin Locomotive Works.

The Manville Asbestos Co., Asbestos, Que., has received 2 saddle tank locomotives from Canadian Locomotive Co.

The Canadian Northern Ry. has received 6 snow ploughs, nos. 7333 to 7335, and 7341 to 7343, from its Winnipeg shops.

Canadian Government Railways have received the last 3 Mikado locomotives, of its order for 50, from Canadian Locomotive Co.

The C.P.R. has purchased 20 air dump cars, and has also received 103 automobile furniture cars from its Angus shops, Montreal.

The Reid Newfoundland Co. is having 50 box cars, 50 flat cars, and 50 sets of draft gear, built by Canadian Car and Foundry Co. at Amherst, N.S.

The Greater Winnipeg Water District has added a second hand passenger car to its railway rolling stock. It was bought in Philadelphia, Pa.

Canadian Government Railways have received 2 Mikado locomotives from Canadian Locomotive Co., and 4 box cars, 50 tons capacity, from Eastern Car Co.

The C.P.R. has ordered 2 vans, 51 steel underframe flat cars 40 tons capacity, 70 steel underframe box cars 40 tons capacity and 5 refrigerator cars, to be built at its Angus shops, Montreal.

The Paris and Orleans Ry. (France) has ordered 50 Mikado locomotives, with cylinders, all 711 m. m. and of 200,000 lbs. weight, all equipped with superheaters, from American Locomotive Co.

The Russian Government has ordered 75 decapod freight locomotives from Baldwin Locomotive Works. In addition to these, the company has Russian orders for 150 decapod locomotives and 63 narrow gauge Mallet locomotives.

The Canadian Government Railways have purchased the following cars in the United States since Jan. 1, 1916: 500 coal, 50 sleeping, 10 dining, 18 tourist, 23 first class, 2 baggage and 2 mail and express.

The dimensions of the 50 all wood box cars, 20 tons capacity, which Canadian Car and Foundry Co. is building for the Reid Newfoundland Co., St. John's, Nfld., are as follows:

Length over end sills .....	30 ft.
Width over side sills .....	8 ft.
Length over running board .....	31 ft. 5 1/2 in.
Width of door opening .....	5 ft.
Height, bottom of sill to top of running board .....	8 ft. 4 in.

Canadian Government Railways have ordered 1,000 steel frame box cars, 40 tons capacity, from the Eastern Car Co., and 1,000 similar cars from Canadian Car & Foundry Co., and have bought 10 second hand locomotives and 300 second

hand 34 ft. box cars, 60,000 lb. capacity, from General Equipment Co.

Following are chief details of the 1,000 box cars which Canadian Government Railways have on order with the Eastern Car Co., for delivery in December and January:

Capacity .....	80,000 lb.
Length inside .....	36 ft.
Width .....	8 ft. 6 1/2 in.
Height floor to carline .....	8 ft. 0 1/2 in.
Width of side door opening .....	5 ft.
Height rail to top of brake mast ..	13 ft. 11 1/4 in.
Height rail to centre of coupler ....	2 ft. 10 1/2 in.
Body bolsters, centre to centre .....	26 ft. 10 in.
Draft gear .....	Twin spring
Coupler .....	M.C.B. 5 by 7 in.
Air brake .....	Westinghouse K.C. 8 by 12 in.
Axles .....	M.C.B. 5 by 9 in.
Wheels .....	M.C.B. chilled cast iron, 33 in.
Journal boxes .....	M.C.B.
Journal bearings ..	M.C.B. lead lined 5 by 9 in.
Wedges .....	M. C. B. drop forged
Truck bolsters and brake beams .....	Simplex

The Canadian Car and Foundry Co. has received an order from the Russian Government for 1,600 sets of steel work for Russian box cars, without cabs, and for 400 sets for cars with cabs, each of 1,200 pounds, approximately 20 tons, capacity. Following are chief dimensions of the cars:

Length .....	22 ft. 9 in.
Width .....	9 ft.
(Not including thickness of military wall planks.)	
Height at side wall .....	7 ft. 8 1/2 in.
Height at middle .....	8 ft. 4 in.
Base of cars .....	13 ft. 1 1/2 in.
Projection of hand brake cars,	
at brake end .....	6 ft. 4 in.
at other end .....	5 ft. 6 in.
Projection of other cars, at both ends ..	4 ft. 11 in.
Outside length between the two faces of end sills,	
hand brake car .....	25 ft.
other car .....	23 ft.
Length with buffer, hand brake cars ..	28 ft. 10 in.
other cars .....	26 ft. 10 1/2 in.
Gauge of wheels .....	5 ft.
Draft gear....European type with draw bar hooks and screw couplings	
Journal bearing wedges ..	Drop forged 5 1/2 x 10 in.
Dust guards .....	Rotary ring steel
Axles .....	M.C.B. 5 1/2 x 10 in.
Wheels .....	Cast iron 39 3/4 in.
Air brakes ..	Westinghouse Russian standard 8 in.
Roofing .....	Galvanized iron

### Military Railway Building in France.—

The United States War Department has called for the raising of nine engineer regiments—about 10,000 men in all—under the terms of the National Defence Act of June 3, 1916, which prescribed that in time of war the army might be provided with such additional units of a special character as were required, in addition to the establishment of fighting men provided by law. The men to be enlisted will not be drafted. They will be volunteers, and appeal is being made for those who have had railway, bridge building, subway, or other engineering experience in similar or related lines. The first detachment of U.S. army engineers arrived in England, May 23.

**Workmen's Compensation on the Timiskaming & Northern Ontario Ry.**—From Jan. 1 to Mar. 31, 18 claims were registered with the commission, all for minor accidents. Of these, 5 were passed and paid, 6 were disallowed, and 7 were kept in abeyance. The claims paid amounted to \$248.58. The insurance cost for the period mentioned, based on premium paid in 1915, would have been \$4,416.25, or an average premium of \$883.25 to protect an average award of \$49.71.

**British Columbia Railway Expenditure.**—The estimated expenditure for the province for the current financial year includes the following items: Cost of Railways Department, \$100,380;; Nakusp & Slocan Ry., amount required in excess of earnings to meet interest charges, \$23,000; Pacific Great Eastern Ry., to meet interest on guaranteed bonds, \$907,200. The last two items are chargeable to capital account.