

tracting Company. The cost, including pipes and accessories, was approximately \$52,000. The unit prices and total cost of the various classes of work were as follows:

Excavation, 7,801 cu. yd. at \$0.80	\$ 6,240.80
Plain concrete, Class A, 58.2 cu. yd. at \$4.00..	232.80
Plain concrete, Class B, 281.3 cu. yd. at \$5.00	1,406.50
Reinforced concrete, 12-in. base, 759 cu. yd. at \$5.00	3,795.00
Reinforced concrete, 6-in. bottom, 473.1 cu. yd. at \$8.00	3,784.80
Reinforced concrete side-walls, 1,178.3 cu. yd. at \$11.00	12,961.30
Reinforced concrete partition, 120 cu. yd. at \$20	2,400.00
Reinforcing bars, 582,668 lb. at 1 3/4 cents.....	10,196.69
Clips for reinforcing bars	650.00
Ladders and angle-iron supports	852.16
Cast-iron pipes and valves	7,283.00
Gate-house	1,200.00
Miscellaneous	844.59
Total cost	\$51,847.64

RAILWAY DEVELOPMENT IN 1913.

A FEW figures showing the extent of Canadian railway development during 1913, appear below. Those relating to single tracking do not take into account a vast amount of extension work that is in the preliminary stage, but refer entirely to lines upon which steel has been or is being laid.

Single Track.	Miles.
Algoma Central & Hudson Bay—In Ontario, one mi. north of Oba to Hearst	49.47
Algoma Eastern—In Ontario, from end of track to Little Current on Manitoulin Island	6.55
Campbellford, Lake Ontario & Western (Can. Pac.)—Glen Tay, Ontario, to Agincourt	182.30
Canadian Northern—British Columbia, 6.07 mi.; Alberta, 256.89 mi.; Saskatchewan, 166.82 mi.; Manitoba, 65.66 mi.; total	495.40
Canadian Northern Ontario (Can. Nor.)—Quebec, 8.00 mi.; Ontario, (between Ottawa and Port Arthur), 536.00 mi.; (between Sydenham and Ottawa), 36.00 mi.; total	580.00
Canadian Northern Pacific (Can. Nor.)—British Columbia, Hope to Cisco, 62.00 mi.; Kamloops north to Cottonwood, 123.00 mi.; Westminster to Steveston, Lulu Island, 12.00 mi.; between Cisco and Kamloops, 9.00 mi.; total	206.00
Canadian Pacific—In Manitoba, Snowflake west 10.00 mi.; Virden branch between Virden and McAuley, 23.00 mi.; between Boisjévain and Lauder, 28.80 mi.; in Saskatchewan, Estevan northwest, 54.5 mi.; Kerrobert northeast, 36.10 mi.; between Swift Current, Sask., and Bassano, Alta., 60.8 mi.; between Weyburn, Sask., and Stirling, Alta., 162.00 mi.; in Alberta, Suffield southwest, 32.3 mi.; between Gleichen and Shepard, 25.00 mi.; on Alberta Central branch, 40.20 mi.; Lacombe east, 12.00 mi.; in British Columbia, on Kootenay Central 63.5 mi.; on White-water-Kaslo line, 16.00 mi.; total	574.20
Esquimalt & Nanaimo (Can. Pac.)—McBride Junction to Little Jualienne river	8.50
Fredericton & Grand Lake Coal & Railway (Can. Pac.)—In New Brunswick, Mile 11 to Mile 23..	12.00
Grand Trunk Pacific—In Saskatchewan, Cut Knife branch, 30.00 mi.; Biggar-Calgary branch, 67.00 mi.; Prince Albert branch, 8.00 mi.; Moose Jaw northwest branch, 52.00 mi.; Regina Boundary branch, 48.00 mi.; in Alberta, Tofield-Calgary branch, 36.00 mi.; in British Columbia, west of Yellowhead, 122.00 mi.; and east of Prince Rupert, 117.00 mi.; total	480.00

Hudson Bay—Between The Pas, Man., and Port Nelson	100.00
Intercolonial—Georges river, N.S., to Sydney mines..	8.80
Interprovincial & James Bay Ry. (Can. Pac.)—Lumsden's Mills, Que., north	10.00
Kettle Valley—In British Columbia	80.00
National Transcontinental Railway—In province of Quebec, 88.26 mi.; Manitoba, 2.22 mi.; total..	90.48
Pacific Great Eastern—Between North Vancouver, B.C., and Dundrave, 4.50 mi.; between Newport, B.C., and Cheakamus, 13.50 mi.; total.....	18.00
Quebec Central—St. Sabine, Dorchester county, to St. Camille, Bellechase county	5.00
Reid Newfoundland Co.—In Newfoundland, Trepassey branch, Biscay Bay to Trepassey, 5.00 mi.; Carbonear to Bay-de-Verde, 53.00 mi.; Goobies to Black River, 15.00 mi.; extension Heart's Content branch to Heart's Content, 1.00 mi.; total..	74.00
St. John & Quebec—Between Centerville, N.B., and Gagetown	90.00
Sydney & Louisburg—Waterford Lake, N.S., to Victoria Mines, 1.00 mi.; Morien Junction to Morien Village, 2.00 mi.; total	3.00
Temiskaming & Northern Ontario—Porquis Junction, Ont., to Iroquois Falls	7.25
Vancouver, Victoria & Eastern (Gt. Nor.)—Between Kilgard, B.C., and Sumas Landing.....	5.05
Total	3,086.00

The following figures give in detail the double tracking that was laid during 1913, or was nearing completion at the close of the year:

Canadian Pacific—Farnham, Que., to St. John's, 13.20 mi.; Agincourt, Ont., to Leaside Jct., 6.20 mi.; Islington, Ont., to Guelph Jct., 29.20 mi.; Azilda, Ont., to Cartier, 9.50 mi.; Hemegos, Ont., to Devon, 12.40 mi.; Ester, Ont., to Shumka, 32.90 mi.; Tarpon, Ont., to Moberg, 20.2 mi.; Navilus, Ont., to Port Arthur, 1.60 mi.; Semlin, Ont., to Paysiplate, 15 mi.; Gravel, Ont., to Dublin, 11 mi.; Bergen, Man., northeast, 20 mi.; Kemmay, Man., to Virden, 39 mi.; between Whitewood, Sask., and Grenfell, 8 mi.; Indian Head, Sask., to Regina, 42.00 mi.; Regina, Sask., to Pasqua, 34.80 mi.; Caron, Sask., to S. Current, 94.80 mi.; Ruby Creek, B.C., to Westminster Jct., 64.4 mi.; total	454.30
Toronto, Hamilton & Buffalo—Welland, Ont., to Fenwick	5.91
Vancouver, Victoria & Eastern—Ardley, B.C., to Still Creek	7.12
Total	467.33

A comparison of mileages of single tracking in Canada and the United States during the past 10 years is as follows:

Year.	Canada.	United States.
1904	316	3,832
1905	1,181	4,388
1906	1,007	5,623
1907	976	5,212
1908	1,249	3,214
1909	1,488	3,748
1910	1,844	4,122
1911	1,898	3,066
1912	2,232	2,997
1913	3,086	3,071

The Panama Railroad is now engaged in building a concrete sea wall along the front of the fill between the fire station at Cristobal and the end of the mole for the new piers, to be used by the buildings of the steamship companies. The total length of the wall will be about 350 ft. It is composed of concrete cubes, one yard on a side, which are laid in brick style and faced above the water line with a wall of concrete one foot thick.