

NEW COMPANIES.

Peterborough Steel Rolling Mills Company, Limited, Peterborough, Ont., incorporated, capital \$200,000. Directors W. Ferguson, W. Rudkins, R. J. Munro, A. Dunn, R. H. Fortye, D. O'Connell and A. Elliott.

Southampton Furniture Company, Limited, Southampton, Ont., incorporated, capital \$200,000. Directors, J. H. Spence, F. H. Phelan, F. W. Carey, and others, all of Toronto.

Ontario Oil & Refining Company, Limited, Chatham, Ont., incorporated, capital \$100,000. Directors, C. T. Hobart, G. W. Harrison, T. K. Holmes, J. M. Pike and J. Symon.

Interprovincial Mining Company, Limited, Haileybury, Ont., incorporated, capital \$1,500,000. Directors, W. A. Weir, and J. A. Ewing, Montreal, A. Lay and T. H. Steele, Haileybury, and L. J. Labrosse, Hawkesbury East.

Huronian Cobalt Silver Mining Company, Limited, Cobalt, Ont., incorporated, capital \$500,000. Directors, J. R. Gamble, W. A. J. Bell, T. Langton, and others.

J. Vansickler & Company, Limited, Toronto, incorporated, capital \$40,000 to carry on the business of builders, contractors and roofers. Directors, G. H. Kemmis, G. Grant, and others.

British-American Silver Company, Limited, Toronto, incorporated, capital \$50,000. Directors, J. E. Elliott, W. H. Wallbridge, and J. E. Davies.

Wright Silver Mining Company, Limited, Toronto, incorporated, capital \$200,000. Directors, T. Harder, F. C. Elks, E. B. Ryckman, and others.

Keewatin Lumber Company, Limited, Keewatin, Ont., incorporated, capital \$250,000. Directors, E. W. Backus, W. F. Brooks, A. E. Horr, and W. H. Flanagan, all of Minneapolis, and D. McLeod, Keewatin.

Toronto Furniture Company, Limited, Toronto, incorporated, capital \$40,000. Directors, D. K. Ridout, D. C. Ridout, T. P. Johnstone, and others.

Twin Lake Mining Company, Limited, New Liskeard, Ont., incorporated, capital \$500,000. Directors, J. Ruby, H. Dorrow, New Liskeard; and T. Passmore, North Bay.

Exeter Canning & Preserving Company, Limited, Exeter, Ont., incorporated, capital \$40,000. Directors, J. Snell, J. G. Jones, C. Sanders, T. Harvey, S. Martin, A. Marchand, W. Sanders, and J. Hunter.

Canada Mines Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, H. C. Barber, J. A. Gormaly, R. T. Shiell, H. L. Dunn, and others.

Williams Copper Mining Com-

pany, Limited, Toronto, incorporated, capital \$100,000. Directors, J. F. Lennox, D. A. Rose, and M. W. Mayor.

Fort Francis Lumber Company, Limited, Fort Francis, Ont., incorporated, capital \$60,000. Directors, W. A. Preston, Fort Francis; W. Blackwood, Winnipeg; W. J. Elliott, Toronto; and H. J. Tharle, Fort William.

Toronto Waterloo Office Fixture Company, Limited, Waterloo, Ont., incorporated, capital \$75,000. Directors, G. Deisenroth, G. H. Haberstadt and J. H. Mitchell, all of Toronto; A. Bauer and John Letter, Waterloo.

Benjamin Moore & Company, Limited, Toronto, incorporated, capital \$50,000, to manufacture and deal in paints, wall finishes, oils, etc. Directors, H. B. Johnson, J. H. Whitehead, E. W. Wright, C. W. Thompson, and E. M. Gardiner.

Bailey Mining Company, Limited, Windsor, Ont., incorporated, capital \$500,000. Directors, E. A. Benson, Chicago; H. B. Wright, R. A. Bailey, L. S. Trowbridge, J. H. Harris, and J. P. Glendon, all of Detroit, and A. R. Bartlett, Windsor.

National Mining & Developing Company, Limited, New Liskeard, Ont., incorporated, capital \$40,000. Directors, K. Farrah, J. J. Grills, J. W. Bolger, and others.

Golden Reed Mining Company, Limited, Sault Ste Marie, Ont., incorporated, capital \$1,200,000. Directors, R. J. Miller, St. Thomas; G. Reed, Michipicoten River; M. Gates and A. E. Sharp, Sault Ste Marie, Michigan, and F. M. Dole, Sault Ste Marie, Ont.

COST OF DRIVING AND PULLING TEST PILES, HACKENSACK RIVER, N. J.

A pile was driven every 50 ft. across the Hackensack River, N. J., to test the nature of the bottom. Three 90-ft. piles were used, and were pulled after driving. The cost the word includes the cost of pulling as well as driving.

A scow driver was used, and the work was done at cost plus 10 per cent. for superintendence. The total number of feet penetrated by the piles was 634, or about 57 1/2 ft. as an average of 11 piles, 8 of which were driven to rock. The material penetrated was mud, sand and clay.

The work occupied 4 1/2 days, of which 1 1/4 days were spent in transporting the driver to the site of the work and removing it from the work after completion.

The cost was as follows:

Foreman, 4 1/2 days at \$4.....	\$18.00
Machine men, 45 days at \$3.....	135.00
Watchman, 4 nights at \$3.....	12.00

Total.....	\$165.00
Add 10 per cent. for profit.....	16.00

Total.....	\$181.50
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This is at the rate of 30 cts. per linear foot of penetration for driving

and pulling, but it does not include the cost of coal. Coal was probably less than 1/2 ton per day, or say \$10 for the whole job, or less than 2 cts. per foot.

The cost of materials was as follows:

3 piles 90 ft. long, at \$25.....	\$75.00
2 spruce piles, 52 ft. long, for use as followers, at \$4.....	8.00
4 pile bands, at \$2.50.....	10.00

Total.....	\$93.00
Add 10 per cent. for profit.....	9.30

Total.....	\$102.30
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This is equivalent to about 16 cts. per linear foot of pile penetration. The total cost was therefore:

	Per ft. Penetration.	Per Pile.
Labor.....	\$0.30	\$16.50
Coal.....	.02	0.90
Materials.....	.16	9.30
Total....	\$0.48	\$26.70

It will be noticed that there were 10 men and 1 foreman on the driver, which is an unusually large number; and it will also be noted that the wages paid the "machine men" were very liberal.

Since only 3 1/4 days were actually spent in driving, the average day's work was 3 piles driven and pulled. If an ordinary scow driver crew of 6 men at \$2, and 1 man at \$4, had been employed, the daily wages would have been \$16. To which add \$2 for coal and \$6 for rental of plant, making a total of \$24 per day for driving and pulling 3 test piles, or \$8 per pile. Even \$8 per pile would be a high cost for such work, when done by contract, if the cost of moving the driver to and from the site of the work is not included.

In view of the valuable information gained at small expense by driving test piles, it is surprising that engineers do not oftener test the bottom of rivers in this way before drawing plans and specifications for bridge foundations, trestles, etc. When a contract has been awarded for foundations, the first thing that the contractor wants to do is to order his piles. The engineer usually refuses to furnish a bill of materials until enough piles have been driven to determine the character of the bottom. This delays the whole work, and adds materially to the contractor's expense. Moreover, it usually results in a change of specified lengths of piles, and a corresponding change in the ultimate cost of the job. The time to drive test piles is before the award of a contract, not afterward.—Engineering—Contracting.

The building returns for Calgary, Alta., for the month of August was \$19,957 less than in the previous month. The actual number of permits issued was thirty-three for August of which the total value amounted to \$108,500 against \$128,457 for the previous month.