Canada Forge Company, Limited, Welland, Ont., incorporated, capital \$100,000. Directors, T. J. Dillon, C. Burgess and J. L. Emerson, all of Titusville, Pa.

Lehigh Portland Cement Company, Limited, Thurlow township, incorporated, capital \$1,000,000. Directors, H. C. Trexler, E. M. Young, C. A. Matcham and G. G. Sykes, Allantown, Pa., and A. W. Thorn, Buffalo.

Canadian Gas Powder & Launches, Limited, Toronto, incorporated, capital \$500,000. Directors, J. Laishley, S. F. McKinnon, D. J. McKinnon, L. C. Laishley, R. Hunter and others.

Detroit & Algoma Silver Mining Company, Limited, Windsor, Ont., incorporated, capital \$100,000. Directors, A. W. Wright, W. H. Morris, and L. J. Wohnlick all of Detroit.

Temiskaming Hematite Iron Company, Limited, Toronto, incorporated, capital \$42,000. Directors, C. G. Knott, G. H. Smith, O. M. Hodson, G. Stevenson, Toronto, and W. H. Hodson, Lockport, N. Y., and J. E. Clark, Orillia, Ont. Ideal Cylinder Snow Plow Com-

Ideal Cylinder Snow Plow Company, Toronto, incorporated, capital \$100,000. Directors, E. D. Webber, and H. H. Hough, Wiarton, Ont.; G. Currie, and M. M. Heiles, Atwood, Ont., and A. G. Mackay, Owen Sound.

Ideal Concrete Machinery Company, Limited, London, Ont., incorporated, capital\$75,000. Directors, F.A. Borst, C.B. Pulfer, and M. Wetzstein, South Bend, Ind.; J. M. McEvoy, and F. M. Letch, London

LAYING A SUBMERGED WATER MAIN.

A 15 in. water main was recently laid under the Ouse river at York, England, from a heavy cableway strung across the stream. A series of locks downstream from the pipe crossing maintains a somewhat uniform depth of water at low flows in the river, the low water depth being 9 feet at the crossing. As the river was to be lowered somewhat for a week by opening the locks, the work was planned to carry on the most difficult portions of it while the water was low. trench was first dug across the river, as cofferdams could not be built. Mr. W. H. Humphreys, water engineer of York, in describing the work before the British Association of Water Engineers, said it would have been desirable to have secured a greater depth in this trench, but the nature of the river bottom and the difficulty of maintaining the dredge on the line of the pipe trench owing to floods prevented the completion of the additional excavation prior to the time for lowering the river.

Hub and spigot cast-iron pipe in 12 foot 1 inch lengths, with a wrought iron hoop shrunk on at the sockets, was used. The pipe weighed 1,850 lbs. per length, and was double coated with Angus Smith solution. Five ball-andsocket joints, made perfectly tight at an angle under a pressure of 300 lbs., were required to permit the main to assume the profile of the river bed when laid.

The cableway was anchored to two piles on each bank of the stream, with a third pile at each anchorage to guide it. At the time the laying was done the width of the river had been reduced to 100 feet, so that eight 12 foot lengths of pipe with the ball-and-socket joints were enough to cross it. The alternate joints were made with ball and socket. A lead joint between two lengths of pipe was first made and half of a ball-and-socket joint attached to each end of this two-length section. This section was then swung in chains rove in blocks on the cableway and hauled across the river. It was then lowered



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