station under average English conditions is of sufficient size to use steam turbines of 1,000 kw. or larger.

The results in Guernsey have fully justified the installation both of gas and Diesel engines, the great saving in the fuel bill being more than sufficient to balance the increased costs in other directions.

BLAST-FURNACE SLAG FOR BRICKS.

Slag bricks are now made by several standard methods, most of them involving hardening either in a steam chamber or an atmosphere of carbon dioxide. During the last few years experiments have been carried out in Germany on the use of slag bricks for engine foundations. The mortar used in these experiments consisted of one part burnt lime and ten parts granulated foundry-iron blast-furnace slag. These materials were thoroughly ground together in a mill, and the brickwork kept carefully moist during building and after being finished. In April, 1912, large cubes were taken from the various foundations and tested under compression. The results varied from 1,166 pounds to 2,688 pounds per square inch, comparing very favorably with best Portland cement concrete. The cost per cubic meter of brick work built of slag bricks with bricks at 17s. per 1,000 was shown to be about 11s 3d. The corresponding cost of concrete foundations varied from about 19s. 6d. per cubic metre for a 1 to 5 mixture to 12s. 1d. for a 1 to 12 mixture. Finally, tests were made on cubes built up of slag bricks hardened by means of carbon dioxide They were built on April 3rd, 1912, using mortar made as before, and were surrounded with moist sand, which was moistened afresh each day for eight days. The results in pounds per square inch were:—

	Test No. 1.	Test No. 2.	Test No. 3.
May 3rd, 1912	2,133	1,835	1,707
June 2nd, 1912	2,290	2,133	1,920

The ratio of lime to granulated slag was 1 to 8 in test No. 1, 1 to 10 in test No. 2, and 1 to 15 in test No. 3.

A GIGANTIC DREDGING CONTRACT.

The contract recently awarded to a Canadian firm for the dredging in connection with the water front development of the city of Toronto under the direction of its Board of Harbor Commissioners is one of the largest ever undertaken in Canada. Some 31,000,000 cubic yards will be removed from the harbor at an estimated expenditure of nearly $6,500,000. Dredging operations will be carried on over the entire water front as far west as the Humber River, and the successful tenderer is getting plant in readiness to undertake the deepening of the harbor immediately. The work of filling the industrial area formerly known as Ashbridge's Bay will be carried on simultaneously. E. L. Cousins, B.A.Sc., is harbor engineer to the Commisssion.

VANCOUVER BRANCH, CANADIAN SOCIETY OF CIVIL ENGINEERS

The accompanying photograph of the Vancouver Branch was taken on the occasion of a visit on May 10th to the Coquitlam Dam which is being constructed by the Vancouver Power Co., Limited. We are indebted to the resident inspecting engineer for taking the photograph, and to Mr. Challies, superintendent, Water Power Branch, Department of the Interior, for copy of it.