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**DATA AND NOTES DERIVED FROM TESTS ON CEMENT AND
ALSO ON CONCRETE TAKEN FROM REGULAR BATCHES
USED IN ACTUAL WORKS.**

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The following tests on cement were made during the year of 1900, at Chaudiere Falls, Que., where a water power of 5,000 H. P. was being developed under the direction and supervision of T. Pringle & Son, Hydraulic Engineers, in accordance with their plans and specifications, by the Engineering Contract Company.

The work, in general, consisted of the construction of a timber crib 190 feet long on concrete piers, with a concrete abutment on the west end, the spaces between the piers being designed to allow the water to enter the head race under the crib, which was firmly bolted to these supports.

The head race is enclosed on the west side by an earthen embankment about 250 feet long, with a concrete core wall, which embankment also runs into the west bank of river at an angle of about 97 degrees to the side of head race, a distance of some 300 feet. It is bounded on the north and northwest by a concrete bulkhead with steel framing to carry the water racks, etc., built in the concrete together with three steel plate cones, tapering from 9 feet to 8' 3" inside diameter in 29 feet length, and one cone tapering from 3 feet to 2' 6" inside diameter in the same length. To these cones, are connected penstocks to carry the water down to the turbines, direct connected to generators situated in a power house some eighty feet below, the small pipe being used to operate independent turbines which drive the excitors.

On the east side of head race is a concrete weir dam about 140 feet long, and at an angle of about 103 degrees to the weir dam is a waste weir provided with stop logs for closing same in time of low water; and then in the same line with this is the main dam 824 feet in length of the overflow type running across the river,