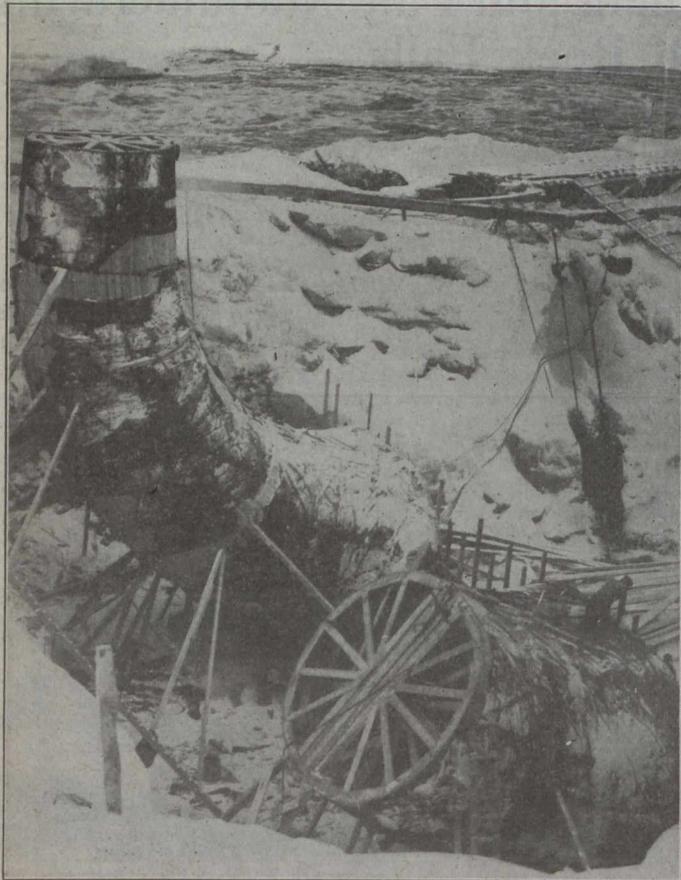


The piers are spaced 21 feet centre to centre at the stop-log guides and are on radial lines. The maximum width is 5 feet, tapering towards the down-stream end to about 3 feet 3 inches in order to give a minimum spillway of 16 feet between the piers.

The discharge is controlled by the stop-logs of which there are two sets placed about 2 feet 6 inches apart.



Installation of Draft Tube Forms

These are of 12-in. x 12-in. timber bolted in pairs and are handled from the deck by an electrically driven lifting machine which operates on a track throughout the length of the dam.

The construction of the dam was done in two sections, the first comprising about 260 feet from the power house end.

A cofferdam 320 feet long was built to divert the water through the west channel, thus permitting the construction of this section and the rock excavation in the forebay to proceed.

Cofferdams were round timber cribs filled with rock. These were constructed in sections, floated into place and sunk, additional courses of logs being placed to bring the work up to the required height, then sheeted with two ply of 2-inch plank.

Divers were employed to place the sheeting and fit it to the river bed, which at this point is of bare rock.

The drawing on the opposite page will give an idea as to the procedure with regard to the unwatering of the site of the second section of the dam, the water in this case being diverted through the completed portion after the first cofferdam had been demolished.

No pumping was necessary to keep the site of the work free of water as the seepage through the cofferdams was very slight and was taken care of by a pipe through

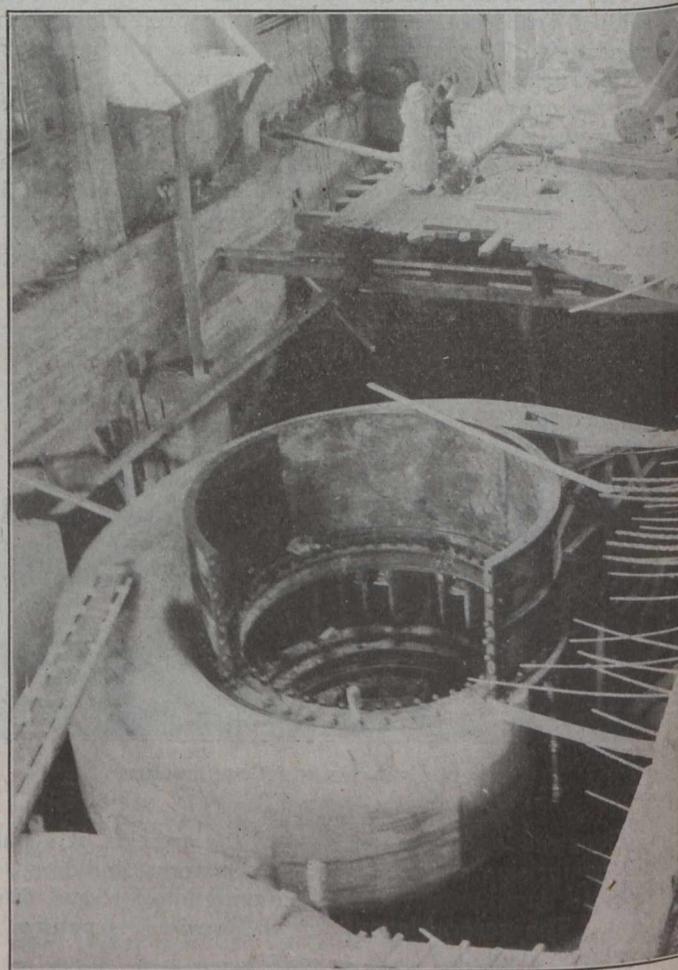
the foundation of the dam. This was sealed with grout as soon as concrete reached the sill level.

The power house is 74 ft. x 98 ft. in plan and is constructed entirely of concrete, heavily reinforced. Structural steel was used for all roof and floor supports and wherever possible is encased in concrete.

On page 490 there is a plan of the power house, and on page 488 the first drawing shows a section through that part of the structure taken up by the main development, comprising about 66 feet of the length of the building. The remaining 32 feet at the east end is utilized for switchboard galleries, etc., details of which are not shown in the accompanying figures.

The lowest floor of this section is occupied by a 200-kw. alternating generator supplying current for such machinery as is required on Sundays. This is belt-driven by a 250-h.p. horizontal turbine, the intake for same being underneath the small gate house at the breast wall. The water is conveyed inside the building by a steel penstock 54 inches in diameter.

There are two floors above this, covering about half the width of the building. The lower one contains the switchboard apparatus and the upper level the control board from which all power distribution to the pulp mill



Scroll Case Form Work

and the operation of the power house is electrically controlled.

The installation for the main development consists of two vertical turbines, each having a manufacturers' rating at a 45-foot head of 4,500 h.p. and 112.5 r.p.m. Each unit is direct connected to a 3,125-k.v.a., 3-phase, 60-cycle, 575-volt generator.