5 ft. of concrete. Whenever the gravity walls are built higher than the natural surface of rock they will have a 6-foot thickness of backfill of puddled clay, behind which ordinary earth filling will be used. The coping at the top of the wall and on the altar levels will be of cut granite, toward the outer entrance of the dock being 1 ft. in 1,000. The sides will be drained by two 6x12-in. gutters. Underdrains, beneath the floor and behind the side walls will remove any seepage water. The floor will be built of plain concrete in sections similar to the walls, the in-



terstices to be grouted on completion. One feature of the floor formation that deserves special mention is that it will be provided with three rows of granite blocks 18 ins. in thickness, down the centre. The middle row will be 4 ft. in width and will be level on the top, while the row on either side will be 3 ft. wide and will conform to the slope of the floor.

As noted in Fig. 3, the head of the dry dock tapers to a point, in plan. The elevation shows that the altars are not continued but end in a plain sloping gravity head-wall.

On each side of the dock and at each end of the main sections stairs will be moulded into the concrete side walls. Timber slides will also be set centrally in each wall of both sections and at right angles to the dock walls. They will be $8x_{12}$ ft. in size and will slope backward from the bottom of the dock to ground level, as shown in Fig. 4. These are shown in Fig. 3, being placed on either side and near the centre of each section. The slides will be faced with granite 18 ins. thick, each block not less than $3\frac{1}{2} \ge 4$ ft. in top surface.

Pumping Equipment.—The following is extracted from the specifications governing the pumps and power units:

The contractor shall furnish and set in place on suitable foundations and at the required elevation, six wrought-steel water-tube boilers each of sufficient capacity to furnish 500 h.p. and two boilers of 300 h.p. each, working under steam pressure of 200 lb., set in batteries of two boilers each. Each boiler may be built with two or more drums not exceeding 48 in.

The boiler should show an efficiency of 75% when fired with good coal containing 12,500 B.t.u. or over per pound.

There shall be three direct-current generators, 550 volts, one of 1,500 kw., one of 750 kw. and one of 300 kw., each driven by steam turbines of the Westinghouse Parsons type, or by triple-expansion reciprocating vertical engines capable of developing 25% overload. These generators shall be built so as to allow the connections in multiple when required. A lighting direct-current gen

in blocks 12 ins. thick and 3 ft. in width in the latter instance and in the form of granite slabs in the former. The side walls are to be built in 30-ft. sections

Section through Altars .

Under Drain

Section through Rolling

separated by a ¹/₄-in. expansion joint. Each section will



Fig. 4.—Details of Blocks and Block Slides, Also of Timber Slides.

be finished with a V-joint τ in. in depth. The flooring of the dock will be 5 ft. in thickness, the elevation at the centre being 6 ins. higher than at the sides and the slope