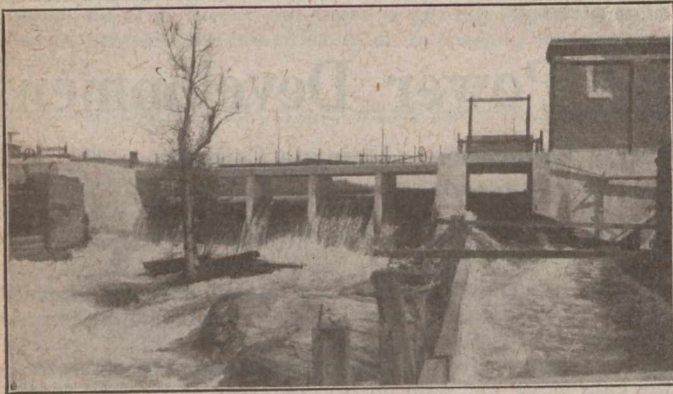


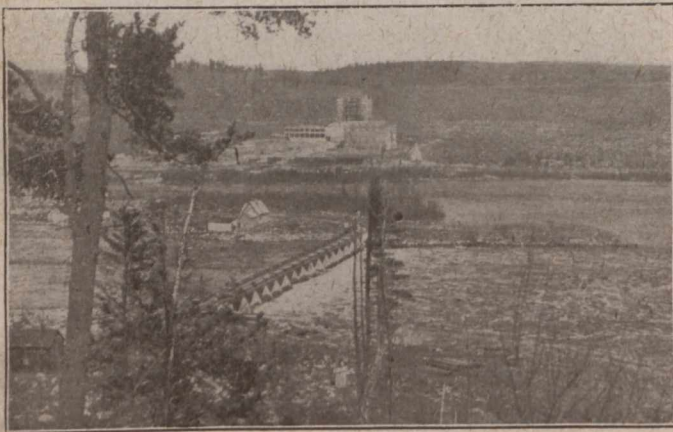
801.12 ft. above mean sea level, raises the level of the impounded water 10 ft. On the south side of the dam is constructed a brick gate house over a 48-in. cast iron gate, which will control the domestic supply through the 4 ft. continuous wood-stave pipe line to the mill. A Bristol recording thermometer has been installed in this building. Adjoining is the log chute opening required by the government



DAM AT LUMSDEN'S MILL

for use of the combined lumber interests along the Kipawa lakes. This opening is controlled by a wooden gate, hand operated.

The spillway of the dam consists of 5 bays, each approximately 6 ft. in width. Adjoining the spillway is a control chamber from which connection may be made in the future for operating a new mill, which may be erected on the site of the old Lumsden mill. This chamber is the source of supply for the old hydraulic turbine in the Lumsden mill, which drives the generator that supplies power for the



VIEW OF KIPAWA MILL FROM ONTARIO SHORE OF OTTAWA RIVER, LOOKING ACROSS ONTARIO DAM

electric lighting system now being used in the town and on the construction work.

Adjoining this chamber, and at the northerly end of the dam, is the inlet chamber which supplies water for the 8-ft. wood-stave power pipe line. This water is also controlled by a wooden gate, hand operated. The usual trash racks are fitted into both chambers.

Power Pipe Line

The 8 ft. power pipe line, which is completed, is of British Columbia fir, with continuous staves, bound by circular bands and supported on 10 by 10 in. wooden sills and blocks, with wedges in rock cuts and bents for fills.

For the greater part of the length, the trench floor was lined to a depth of approximately 12 ins. with one-man-stone and fillers.

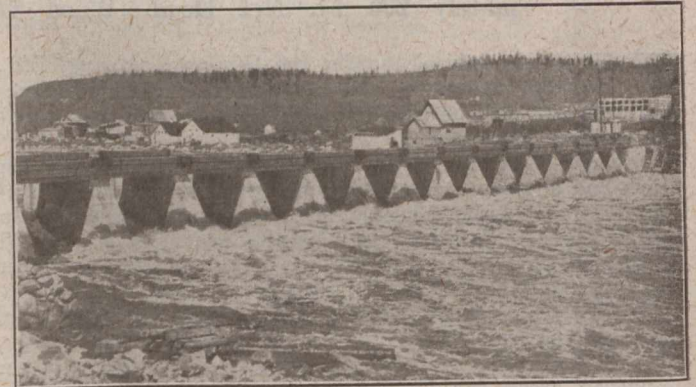
From inlet to forebay, the drop in elevation of the pipe line is approximately 20 ft. Along the line has been located 4-in. cast-iron, screw-flange connections, fitted with 4-in.

screwed valves, to provide for emergencies such as fire. It was found advisable to clear the ground for 50 ft. on each side of the pipe line to reduce danger from forest fires, one fire which scorched the pipe for a short distance, having threatened the entire line with destruction.

A connection with the pipe line will be constructed to supply the proposed filtration and pumping station with water for domestic use throughout the town, and eventually for domestic use in the mill. The 4-ft. pipe line will continue to supply the mill with water for manufacturing purposes.

Forebay

The forebay is located on side hill. The foundations for the walls and the approaches to the penstock entrances, were drilled out of solid rock. The walls and superstructure are constructed of plain and reinforced concrete, being 36 ins. in

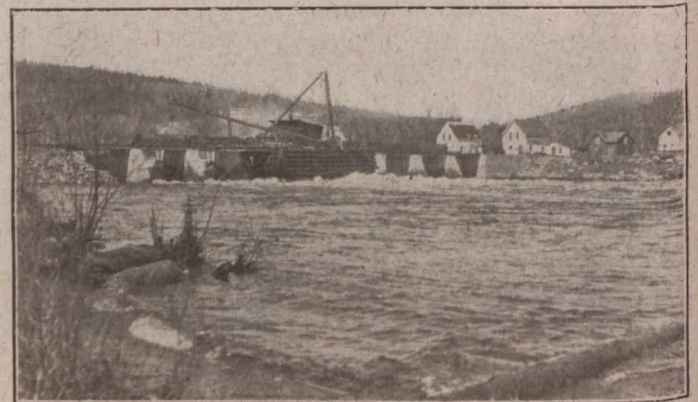


ANOTHER VIEW OF THE ONTARIO DAM

width at the top and about 20 ft. in width at the base. In plan, the forebay is approximately square, with an area of about 10,000 sq. ft. and a depth of about 25 ft. from crest of spillway, which is 3 ft. below the top of the wall.

This forebay also serves as a surge tank and over-flow chamber.

The northerly wall will eventually contain the outlet from the proposed tunnel, which will be approximately one mile in length through the hills to Gordon creek, with intake a short distance above the dam at Lumsden's mill.



QUEBEC DAM, OTTAWA RIVER

A channel has been drilled and lined with concrete in the rock within the forebay, from the proposed point of entry of the tunnel to the centre line, whence the excavation was carried to full depth and for the entire width. The rock forming that portion of the floor area that was not drilled and blasted, was capped with mass concrete.

The easterly wall contains two hexagonal openings providing for entrance of the present 8-ft. pipe line and for future duplication. The westerly wall contains spillway to Lake Timiskaming; one 36-in. dirty-water drainage-tile pipe; and three vertical rectangular gates, about 36 ins. in width, one of which is a high level, and the other two low level overflows, hand operated.