

FIG. 2—LAYOUT OF DAM AND RELATED WORKS

Test Pit A carried down to elevation 6.5 showed large boulders in impervious hardpan formation. No indication of rock. Digging discontinued at this elevation. Test Pit B carried down to elevation 3.5 gave results similar to those for Pit A.

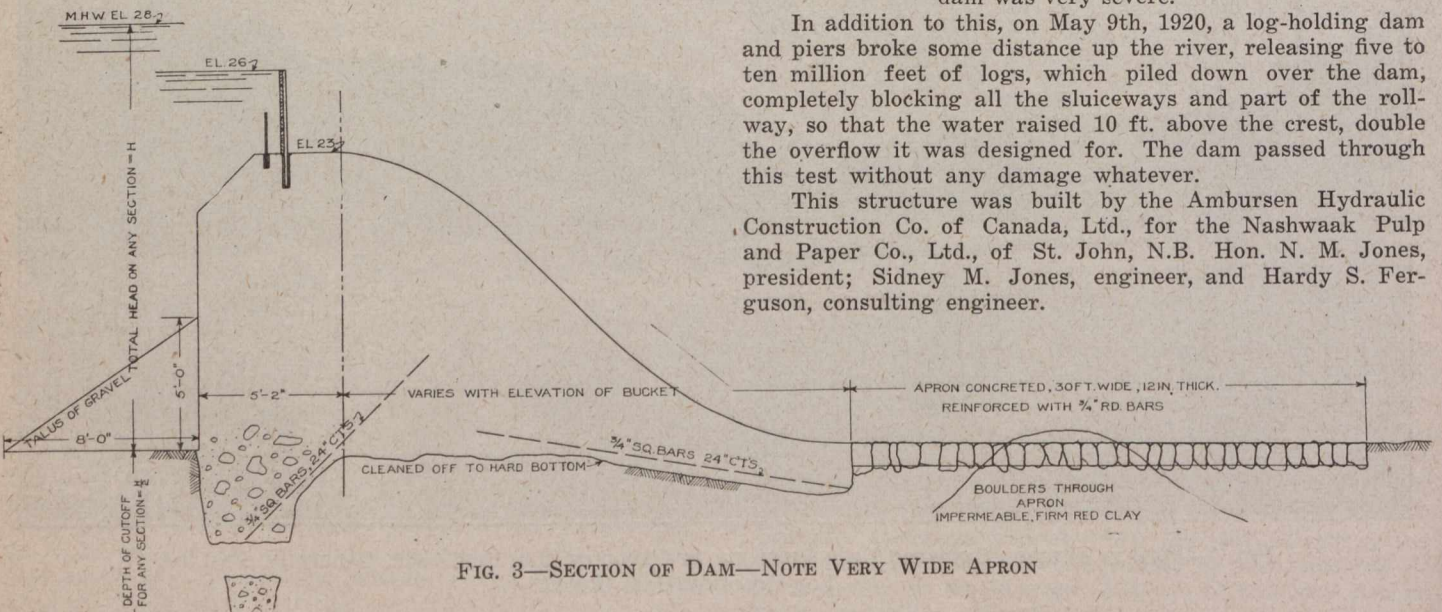


FIG. 3—SECTION OF DAM—NOTE VERY WIDE APRON

removed, providing checks and bonds, in addition to which 1 3/4-in. diameter dowels were driven 2 1/2 ft. into the river bed and allowed to come 2 ft. up into the concrete, spaced at about 3 ft. centres in each direction.

The construction plant was delivered on the ground and a small force of men put to work in August, 1919, but, owing to legal difficulties, it was impossible to commence actual construction until early in October. This resulted in having to carry the work through during several very severe autumn freshets, which added greatly to the difficulty and expense of the work, but notwithstanding this, the dam was completed on the 22nd of December, 1919. Naturally, a great deal of the concrete work was placed in freezing weather, but all the material was heated, the concrete placed in the work immediately and the forms left in position. Examination this spring shows the work to be in first-class condition, the only repairs necessary being a resurfacing of the floor over the waste sluices.

Test by Climatic Condition

The winter of 1919-20 was the most severe for forty years, and, due to the unusual amount of ice causing steady pressure during the winter and heavy shocks during the spring floods, the stress on the dam was very severe.

In addition to this, on May 9th, 1920, a log-holding dam and piers broke some distance up the river, releasing five to ten million feet of logs, which piled down over the dam, completely blocking all the sluiceways and part of the rollway, so that the water raised 10 ft. above the crest, double the overflow it was designed for. The dam passed through this test without any damage whatever.

This structure was built by the Ambursen Hydraulic Construction Co. of Canada, Ltd., for the Nashwaak Pulp and Paper Co., Ltd., of St. John, N.B. Hon. N. M. Jones, president; Sidney M. Jones, engineer, and Hardy S. Ferguson, consulting engineer.

A subscriber is anxious to obtain copies of our issues for January 23rd, 1919, and April 10th, 1919, for binding purposes. Any reader sending in these copies will have his subscription extended one month.

National ownership of the Edmonton, Dunvegan and British Columbia Railway is a decidedly remote possibility, according to Premier Stewart, of Alberta. Instead of the federal government purchasing the system, as was semi-officially announced by Sir George Foster some months ago, a movement is well under way in the east, it appears, to reorganize the E.D. and B.C. company, and thus bring in sufficient capital to put the road in good shape for traffic and take adequate care of the business at hand.

Having completed the investigation of conditions as far as the present water supply of Moose Jaw is concerned in the rural districts, from the Saskatchewan River to Yellow Grass, the commission appointed by the provincial government in connection with the Saskatchewan River water supply scheme for Moose Jaw, Regina and the intervening country between these cities and the river, is now securing further information from the two cities and the C.P.R., C.N.R. and Grand Trunk Pacific Railways. This will complete the investigation of present water supply conditions and future requirements, and the members of the commission are now in a position to proceed with a design and estimates to conform to these conditions.