

# The Canadian Engineer

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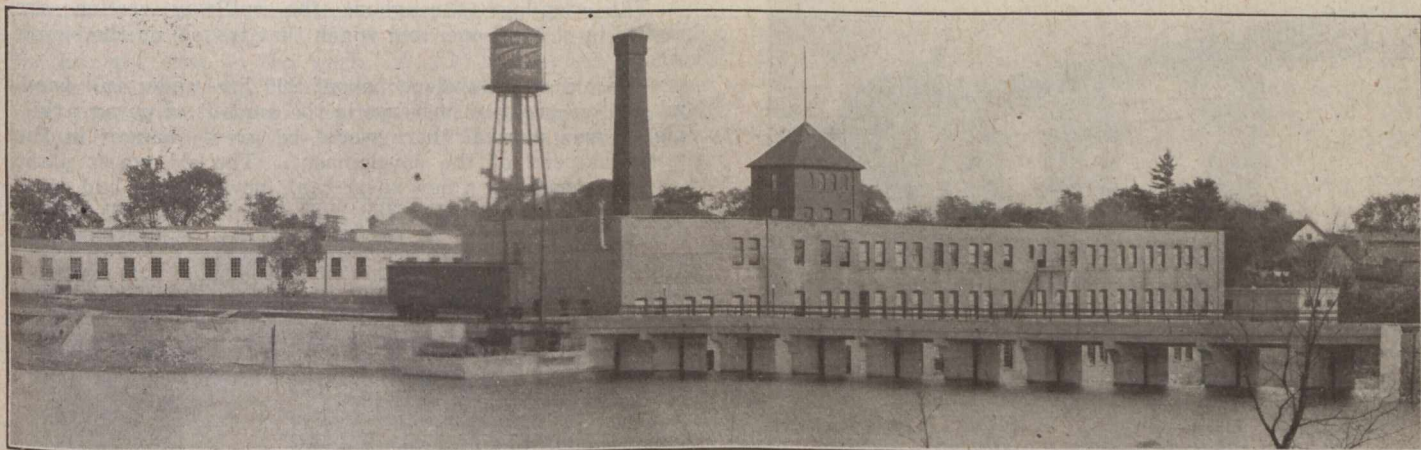


FIG. 1—CANADIAN CONSOLIDATED RUBBER Co.'S "DOMINION PLANT" AND ST. JEROME DAM—VIEW FROM UPSTREAM

## Hydro-Electric Development at St. Jerome, Que.

Concrete Dam, with 190-ft. Spillway, Carries Railway Siding—Shaft of Hydraulic Turbine Direct Connected to Generator and also Drives Main Power Shaft of Factory By Means of Speed-Reducing Silent Chain

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WHEN last spring's floods carried away a portion of the old rock-filled crib dam used to develop power for the Dominion factory of the Canadian Consolidated Rubber Co., Ltd., at St. Jerome, Que., thereby reducing the power to such an extent that it was impossible for the factory to operate continuously, the company immediately decided that the condition and limited power of the old dam did not justify the expenditure of sufficient money to restore it to working condition, and that a new and larger dam should be built.

In order to secure the head of water that was desired for the new scheme, a water-power right further up the river had to be purchased, as it was flooded by the new water level. Arrangements had to be made also with some

of the land-owners upstream, as a portion of their property was inundated.

Diamond drill borings were taken in June to ascertain the location and nature of the rock in the river. It was found that the whole river bed was covered with large boulders and a small amount of clay and gravel, and that



FIG. 2—A CLOSER VIEW OF THE DAM

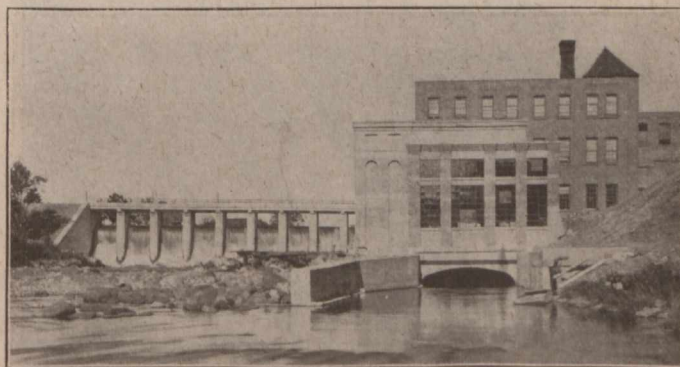


FIG. 3—LOOKING UPSTREAM—TAILRACE, POWER HOUSE AND SURGE TANK IN FOREGROUND; PART OF DAM IN BACKGROUND AT LEFT

the bed-rock was approximately 5 ft. below water level at that season of the year.

The new dam is not remarkable nor were the construction conditions particularly unfavorable, but there were a few features of both design and construction that were somewhat unusual and should be worthy of comment.