

It is likely that this structure will be of concrete, so designed as to be able to take the water from the bottom of the river whenever desirable in order to avoid ice.

The control works near the junction of the canal and the Welland river will consist mainly of Stoney sluices, so arranged that the canal can be unwatered at any time in case of emergency.

Experiments are now being conducted regarding the relative efficiencies of concrete and gunite (the sand-cement

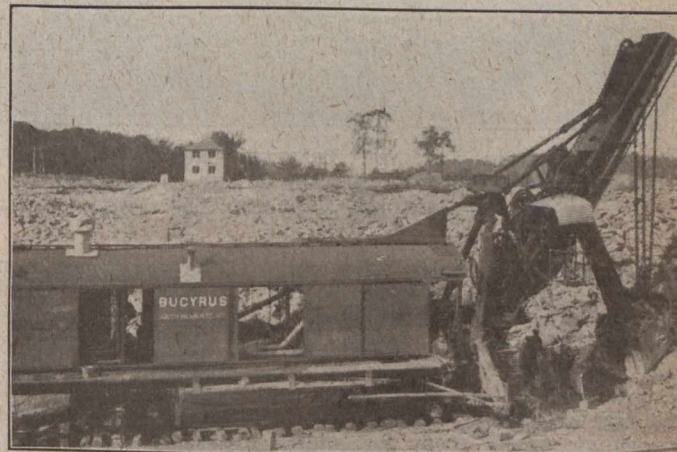
height of at least 30 ft. from the bottom, and in the earth sections it will be lined everywhere to El. 563. At the Welland river for example, the bottom of the canal is approximately at El. 523, so the sides there will be lined for a height of 40 ft.

Over 130 buildings have been built, moved or repaired



7/8-YD. SHOVEL AT THE G.T.R. AND M.C.R. DIVERSION

product shot by cement-guns) linings for the portions of the canal that are in rock. It has not yet been fully decided by what method, or to what extent, the canal will be lined. Wherever the canal is in rock, however, it will be lined to a

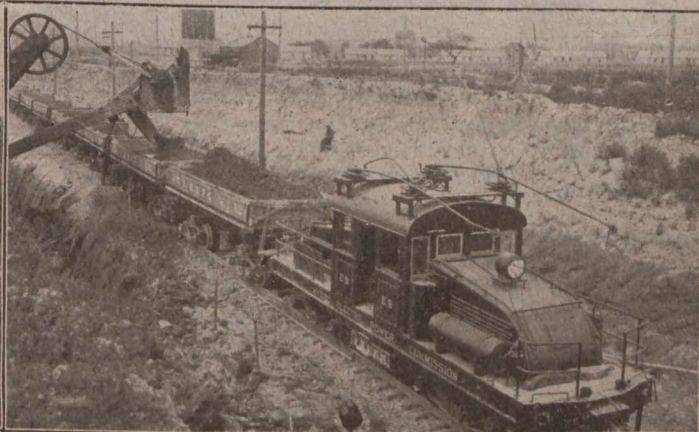
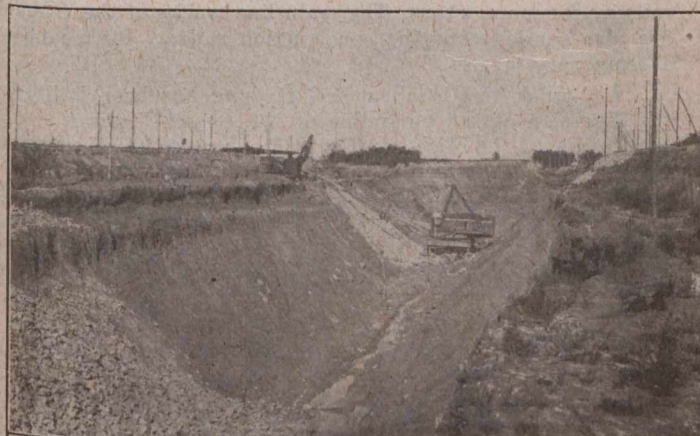


4 1/2-YD. SHOVEL IN ROCK AT THE FOREBAY

during the course of construction to date. Most of the new buildings are of a temporary nature.

Among other work which is being carried out by the commission to remedy the changes in the landscape that are being caused by the power canal, is the construction of several bridges.

A reinforced concrete arch, 86-ft. span, to carry the Niagara, St. Catharines & Thorold Railway across the canal,



FOUR VIEWS OF ONE OF THE 8-YD. SHOVELS WORKING IN EARTH—TOP LEFT PHOTO SHOWS SOME RIP RAP IN PLACE—TOP RIGHT, TRAIN BEING LOADED AT STA. 346+81—BOTTOM LEFT, WORKING SOUTH OF THE WABASH R'Y—BOTTOM RIGHT, WORKING AGAINST A HIGH FACE AT STA. 346+81