

SHAWINIGAN REGULATING GATES

The cut opposite gives a general view of one section of a movable steel dam built for the Shawinigan Water & Power Company at Shawinigan Falls, Que. This dam consists of two portions as the river is divided into two channels by an island. One portion consists of eight gates, and the second portion, which is the one illustrated, consists of 12 large and small gates. All the large gates are 40 feet (12.2 m) wide in the clear between piers, 18 feet (5.49 m) high and 21 feet (6.4 m) lift. The small or regulating gates are contained in the gate house. They are 16 feet (4.88 m) wide and 18 feet (5.49 m) high with 21 feet (6.4 m) lift. The large gates are lifted by means of travelling hoists which run along the bridge, which is supported by towers on the masonry piers. Hoisting is done by means of screws which connect with the vertical end girders of the gates. When lifted to their highest position, the gates are sustained by being connected directly to the bridge through locking pins, which are operated by a hand lever from the platform of the hoist. The hoisting screws may be disconnected and the machine used for lifting other gates. In the illustration all the gates are lifted to their highest position. Two hoists are provided for the 12 gate section of the dam and one hoist for the 8 gate section all of which are operated electrically. The boiler shown in the illustration on the platform of the hoist is used for freeing the gates of ice when this becomes necessary. The small gates in the gate house are provided with individual screw hoists of a similar type to those mentioned above.