

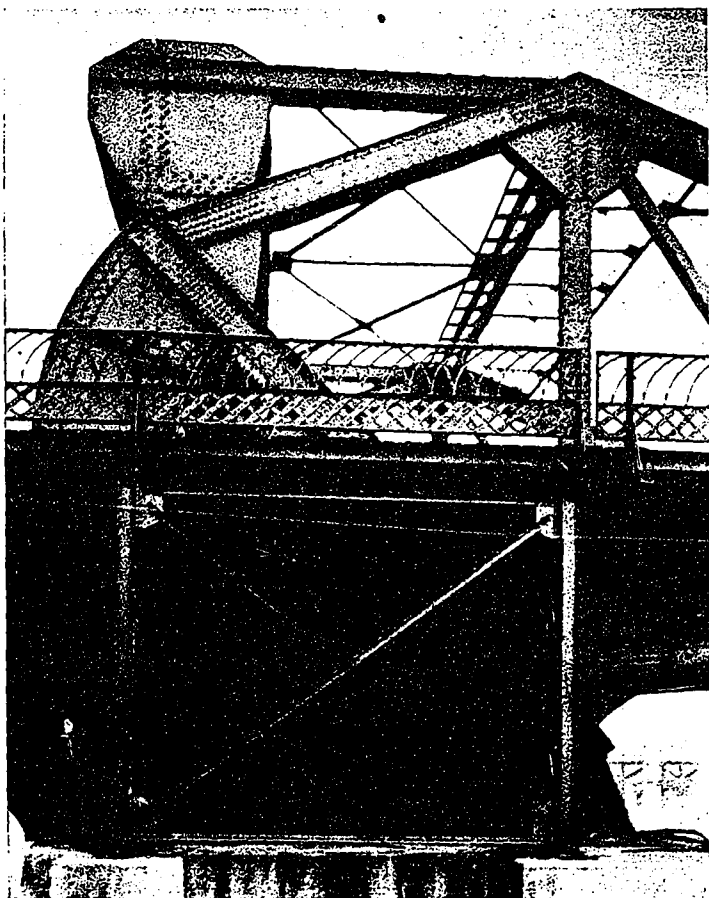
ONE OF THE NEWEST TYPES OF LIFT BRIDGE RECENTLY CONSTRUCTED AT THE INTERSECTION OF THE CUYAHOGA RIVER AND JEFFERSON STREET, CLEVELAND, OHIO, BY THE COWING ENGINEERING COMPANY. ITS TWO LEAVES, WHEN OPEN, GIVE A CLEAR CHANNEL OF 125 FEET. IT CARRIES TWO 6-FOOT SIDEWALKS, TWO ROADWAYS AND DOUBLE CAR TRACKS, CARRYING CAPACITY, 80,000 POUNDS. *Fig. 3.*

the rapid industrial expansion of her western provinces. The Government has been brought face to face with the impracticability of the restrictive narrow and shallow channel available in the Welland Canal—upon which over twenty-one millions of dollars have already been expended—by the possibilities which have been taken advantage of in the construction of the Sault Ste. Marie canals, giving access to and from Lake Superior and through which, during the season of 1906, a fleet of 879 vessels carried 51,751,080 tons of freight; 57 of these vessels were from 500 to 600 feet in length, and from 52 to 60 feet beam; 48 of them being of from 10,000 to 14,000 tons capacity. How much more potent would be the inland navigation service of Canada if vessels of such tonnage could find a through passage from the head of the Great Lakes to the St. Lawrence river. Upon the freight just referred to, \$36,666,889.06 was paid for transportation. These figures indicate the importance of the subject of Canadian navigation, particularly when it is borne in mind that the entire railway freight traffic of Canada for the year 1905-6 was only 57,966,713 tons, while navigation is of necessity tied up for three months each year.

With such possibilities for facile transport, at rates lower by one-third than railway carriage—with all its infinite complications, it is not to be wondered at that the waterway is being looked forward to as the only present relief from the hitherto inevitable congestion in western traffic.

What form of action will be taken is yet undetermined, although the construction of a 20-foot navigation from Georgian Bay and Lake Huron to Montreal via the Ottawa river, is a scheme that has been much discussed, and a considerable amount of survey work has been done under the Public Works Department. It has been suggested to the Government by M. J. Butler, Deputy Minister, that a commission should be appointed for the purpose of studying the economic problems involved in the large amount of prospective canal projection and improve-

ment, and to report thereon for the benefit of the country. The prospective work referred to includes the all-river route by the river Trent, with outlet at Trenton; a 6-foot and a 9-foot navigation for the section between Georgian Bay and Lake Couchiching, via Coldwater and the river Severn; a route to the Georgian Bay, at the southwestern end of Lake Simcoe and the river Nottawasaga; and the



CLOSE VIEW OF MAIN ROLLING SEGMENT OF JEFFERSON ST. BRIDGE, CLEVELAND, O., (CLOSED) SHOWING COG SYSTEM WHICH EFFECTS THE UPWARD AND DOWNWARD ROLL. *Fig. 4.*