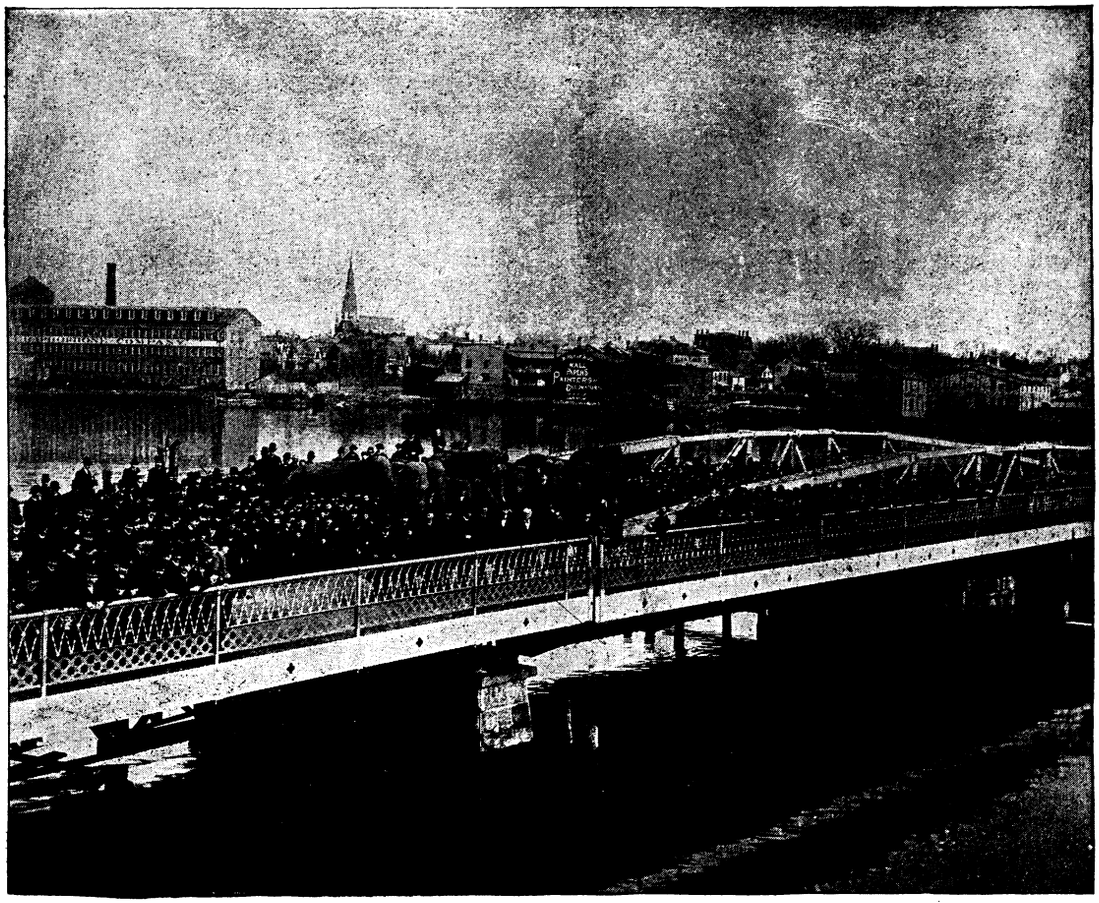
CONGRESS OF ELECTRICIANS AT THE PARIS EXHIBITION.

BY a ministerial decree dated July 16 last, it was decided to hold an international congress of electricians at Paris during the exhibition. All the arrangements are now completed, and the congress will open on Aug. 24, and remain open eight days. The following, relative to this congress, has been issued to those likely to be interested in its work : " The International Congress of Electricians, which met at Paris in 1881, marks an important date in the history of electricity. The consecration of practical unities has had on the development of science and industry an influence the significance of which cannot be exaggerated. The extreme rapidity and facility with which the decisions of the congress were accepted, in the study and in the laboratory, demonstrate their utility. The International Exhibition of 1889 offers a natural occasion of continuing and completing the work of 1881 ; not that the new congress may have to treat of problems of so general and elevated an order, but many questions still remain on which an understanding, or at least an exchange of views, is desirable. In the programme which it has prepared, the organizing committee has not been pretentious enough to indicate them all, and still less to impose limits to the field of activity of the congress : it has simply wished to call attention to those which appeared to it of more general and more immediate interest. We believe we respond to the unanimous feeling of electricians in placing the following questions foremost : practical measure of electrical energy in all its forms ; measure of the current in absolute value with standard of easy reproduction; electricity meters for continuous and alternating currents ; practical evaluation of the lighting ; definition of the constant quantities of a machine from a commercial point of view ; etc. We hope that the *savants* and manufacturers who have contributed to the progress and application of electricity will readily respond to our appeal, and contribute to give this meeting the importance and authority of that which preceded it."

AN ELECTRIC DRAWBRIDGE.

ONE of the latest applications of the electric motor which has excited much interest, not only from its novelty, but also the excellence of its operation, is that of the turning of drawbridges. This is a matter to which a good deal of attention has been given both by bridge and electrical men ; but it is not until recently that the motor for this purpose has supplanted steam, and the slow, laborious method of the long lever worked by three men.

One installation, the details of which are shown in the accompanying cuts, has recently been made at Bridgeport, Conn., by the New England Electric Supply Company. The drawbridge, which is 180 feet long, 60 feet wide, and weighs 320 tons, was formerly operated by three men ; but this method was found to be open to serious objections, and attended by considerable expense, as it necessitated the constant attendance of the men, and, under the most favorable circumstances, it took six minutes to open and close the draw, which caused a jam on both sides, and seriously interfered with the traffic.



ELECTRIC DRAWBRIDGE AT BRIDGEPORT, CONN.

The problem of applying electricity as a motive power has been successfully worked out to the satisfaction of both the city officials and the bridge-builders. The draw can be opened and closed in two minutes, and the expense is limited to the hiring of one man and the monthly charge of the Electric Light Company, by which a considerable saving is effected. The details of the construction are as follows : —

The current is conducted to the motor through two submarine cables, the core being equal to No. 4 B. & S. copper wire, which are protected from lightning by two Thomson-Houston lightning-arresters. The shore ends are connected to the incandescent-lighting current of the Bridgeport Electric Light Company by a double-pole switch, so that the current may be shut off at the pleasure of the draw-tender. The other ends are connected to vertical stationary posts, which are carefully insulated from the