

the secondary; a voltmeter was connected across the secondary coils.

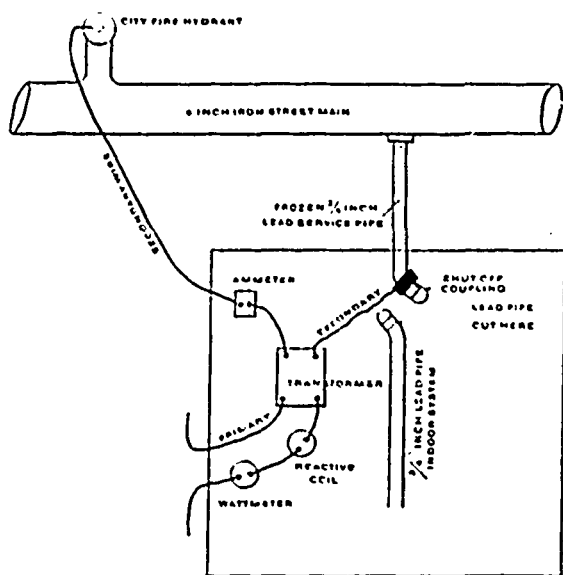
Following is the data of five trials which were made:

1st. Secondary volts 17, primary amperes 8. Connections made from water pipe 25 feet of $\frac{5}{8}$ " lead pipe to a hydrant at the door. Water flowed in three minutes and came out at full pressure in six minutes.

2nd. Secondary volts 21, primary amperes 5. Connections from water pipe in one house through about 100 feet $\frac{5}{8}$ " lead pipe and 16 feet 5" iron pipe to water tap in next house. One of the services only was frozen. Water flowed in eight minutes and with full pressure in ten minutes.

3rd. Secondary volts 22, primary amperes 9. Connections made to water tap inside and to iron main pipe in the street, which was reached by opening a man hole. Current passed through 25 feet $\frac{5}{8}$ " lead and 4 feet of 5" iron main. Water flowed freely in two minutes.

4th. Secondary volts 23, primary amperes 7. Connections made from water tap in one house through about 60 feet $\frac{5}{8}$ " lead and 24 feet of 5" iron pipe to the



APPARATUS FOR THAWING OUT WATER PIPES.

water taps in the next house. Water flowed in one minute and full pressure was on in 3 minutes.

5th. A lead pipe service between a residence and a stable being frozen, connection was made between the water taps in each place and water flowed freely in one minute. No reading of current was taken in this last case.

By the time the pipes completely thawed out the water in some parts of them had become very hot. In some cases it was found impossible to get any current through at all. This was due to the style of joints made in some of the main iron pipes where there was no electrical contact between the different lengths.

The experiment at Chatham, which was also entirely successful, was conducted by Mr. Jones, Superintendent of Waterworks, by the aid of current and a transformer of 100 amperes capacity supplied by the Gas and Electric Co. Using a current of 52 volts, two frozen hydrants were thawed in 45 minutes.

From Germany comes another invention in the domain of electricity, says the Engineering Magazine, in the form of a remarkable current-interrupter, utilising a hitherto unappreciated fact in electrolysis, and this invention of Professor Wehnelt bids fair to effect a great increase in the capacity of induction coils, and in the generation of currents available for advanced researches in radiography.

CANADIAN ELECTRICAL ASSOCIATION.

A WELL attended meeting of the Executive Committee was held on March 23rd. A number of persons were elected to membership in the Association. The arrangements for the annual convention to be held in Hamilton in June were considered, and committees appointed to carry the same into effect. The exact date of the convention was left undecided, pending more definite information on the subject of transportation rates. The representatives of the various electrical companies of Hamilton are taking an active interest in the arrangements, and there is no cause to doubt that the convention this year will be as interesting, instructive and enjoyable as any that have preceded it.

MARITIME ELECTRICAL ASSOCIATION CONVENTION.

THE annual convention of the Maritime Electrical Association will be held in the city of Halifax, N.S., on Tuesday, April 18th, 1899. The outlook for the convention is quite promising, and the officers hope for a large attendance of members and persons interested in the electrical business. Following is a copy of the preliminary programme:

The convention headquarters will be at the new Victoria Hotel, corner of Morris and Hollis streets, and the meetings will be held in the Assembly room. The programme will be as follows:

9.30 a.m.—Meeting of the Executive Committee.

10 a.m.—President's address; report of secretary-treasurer; report of committees; election of officers; general business.

2 p.m.—Papers will be read by various members on: "Iron Armoured Conduit Wiring," "Fire Alarm Systems," "Steam Engineering," "Telephone Work" and "Electric Meters." Questions which have been suggested by the members will also be discussed.

In the evening a reception, consisting of banquet and smoking concert, will be tendered by the Halifax members of the Association. No effort is being spared to make this convention a success from every point of view; and all members attending will not only receive some very practical information from the papers to be read and the discussions which will follow, but will also find the occasion a most enjoyable one socially.

It is hoped that each individual member will not only endeavor to be present, but will also try to induce any eligible persons in his vicinity to send in applications for membership.

Members will purchase a single first-class ticket from their station to Halifax, getting at the same time a standard certificate, which, after being signed by the secretary, will entitle him to a return ticket free if ten or more have come by that line; if less than ten, a return ticket at half price.

Mr. W. H. Preece, C.B., F.R.S., has recently retired on a pension from the position of engineer-in-chief and electrician to the British General Post Office, he having reached the age limit of 65 years. He will, however, continue to act in a sort of consultative capacity to the post office, and in addition will carry on business on his own account in consulting electrical work in connection with lighting and traction. His connection with the telegraph and telephone extends over a period of 47 years. No announcement has yet been made as to who will be his successor.