

pins which were boiled in steric acid.  $5\frac{1}{2}$ " Triple petticoat glass insulators being used with satisfactory results with the 11,000 V. circuits. Bare copper conductor is used spaced 16" on centres, and on account of the low current per line no attempt was made to use the triangular arrangement of conductors, the three wires of each circuit being arranged side by side without transposition.

The 3-phase power circuits occupy the upper arms and on the lower arms are located the single phase arc circuits. The main lines occupy the south bank of the canal.

Crossings are made at the Mille Roches bridge in armoured paper cables, one for three phase 2,200 V. power and lighting circuits and another for the single phase 11,000 V. arc circuit. Another crossing is made at lock 18, which provides for 3-phase power circuit, as well as another 11,000 V. arc circuit to provide for power and lighting on the north bank below this point.

At the Stormont Bridge, near Cornwall, another 11,000 V. arc cable provides for lighting the two piers at the bridge and an emergency cable is laid just above lock 17 so that in case of accident to any of the other crossings or a break in the line, emergency connection can be made in the houses covering the cable heads on the bank of the canal.

While in some cases, sawed octagon poles have been used for a similar purpose, yet the shaved cedar poles selected in this case, present an exceptionally pleasing appearance. Extreme care has been taken in locating and setting out the line and a transit has been used for the work, making the alignment and location almost perfect.

The line is well guyed on the curves with galvanized signal strand well anchored, or, in some cases, tied to a heavy guy stub. On the sharp curves, poles are double armed to provide for the severe strain.

#### LIGHTING.

The lighting of the canal is carried out in a very liberal manner, an arc lamp being located on every fourth pole and the poles averaging about one hundred feet apart. At the locks, as many as twelve or fourteen lamps are located so as to brilliantly illuminate both ends of the locks, as well as the intervening space and the regulating weirs—most of which are located beside the locks.

The lamps are hung from iron pipe brackets which pass through the pole and are held in place by a collar at the front side and a lock nut at the back and braced on the under side by an iron pipe strut fastened to the face of the pole by two lag screws. An insulated hanger is used at the outer end of the bracket (2'-6" from the pole) which, together with the insulators on the lamps, renders danger