THE

THOMSON-HOUlSTON

ELECTRIC

COMPANY

MANUFACTURER OF

ELECTRICAL APPARATUS

DYNAMOS FOR ARC AND INCANDESCENT LIGHTING

ARC AND INCANDESCENT LAMPS

ELECTRIC RAILWAY APPARATUS

STATIONARY MOTORS

ELECTRIC LIGHTING AND POWER

SUPPLIES

BOSTON, DECEMBER 1, 1890
INCANDESCENT LIGHTING ON ARC LIGHT CIRCUITS

SERIES INCANDESCENT LAMPS

IN INCANDESCENT LIGHTING there frequently occur situations such as stores, halls, and public enclosures, which it is often desired to illuminate by incandescent lamps, without the necessity of running a circuit from a separate dynamo. To meet this requirement, incandescent lamps are placed in the lighting circuit directly in series with arc lamps of 1,200 or 2,000 candle-power.

They are provided with an automatic cut-out, which furnishes a path for the current, and prevents an open circuit in case the filament breaks. These lamps are denominated "Star" and "Crescent," the former being used on 1,200 candle-power circuits, and the latter on circuits of 2,000 candle-power.

They are made of 20, 25, 32, 65 and 125 candle-power. The facility with which both arc and incandescent lamps can be operated from the same dynamo and upon the same circuit, is one of the most important features of this system. By its use it is possible for local electric lighting companies to supply both forms of light in a great variety of candle-power, without employing a separate dynamo. These advantages are equally as great in the case of isolated plants. The Thomson-Houston Electric Company is the owner of all the fundamental patents for the automatic cut-outs used in series incandescent systems.

INDIVIDUAL DISTRIBUTORS

What are known as Individual Distributors are sometimes used where it is desired to maintain a group of incandescent lamps on arc light circuits. When such is the case, lamps are placed in groups of five on the 1,200 candle-power circuit, or eight on the 2,000 candle-power circuit, an equal amount of current passing through each one. Each lamp has its own individual cut-out, consisting of a resistance which is automatically thrown into circuit as a substitute for the filament itself, and which provides for an excess of current in the other lamps, when one of a group is broken or turned off.
BRACKETS FOR SUSPENDING

INCANDESCENT LAMPS

BRACKETS FOR USE WITH INCANDESCENT LAMPS are made in two forms as shown on the opposite page. The upper bracket has an inverted shade, which reflects the light, and a glass globe which serves to protect the lamp and socket from moisture and mechanical injury.

The lower hood is used in connection with Series Incandescent Lamps and is provided with a cut-out, placed in the upper part of the hood, by means of which the lamp can be extinguished and relighted at will. These hoods, which are made of tin, are strong and durable, and especially designed for out-door use.
SHADE AND PROTECTOR

HOOD FOR SERIES LAMPS
INCANDESCENT LAMPS

The incandescent lamps used with the Thomson-Houston Dynamo for Incandescent Lighting are superior in many respects to lamps of other makes, being manufactured under the well known Sawyer-Man patents. Owing to a special method of treatment during the process of manufacture, used only by this company, the carbon filament, though similar to that used by other manufacturers, gives this lamp superior advantages. It has a distinctive form, a quarter turn being given to it, which permits an equal radiation of light in all directions. Under repeated tests the life of these lamps has greatly exceeded the guaranteed number of hours, and at the same time they maintain a uniform candle-power without blackening of the bulb. They are made for long-distance incandescent lighting, using the Transformer System; for use with Distributors; in series on Arc Lighting circuits and for Direct Current Lighting by low-tension currents.