(No Model.)

F. B. BADT.

ELECTRIC LIGHTING SYSTEM.

No. 489,598. Patented Jan. 10, 1893.

Fig. 5.

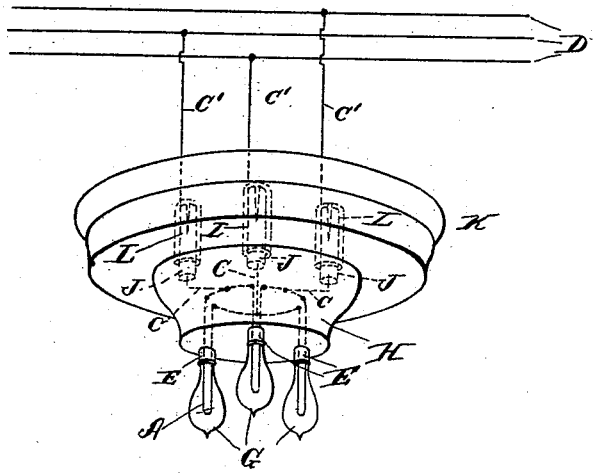


Fig. 1

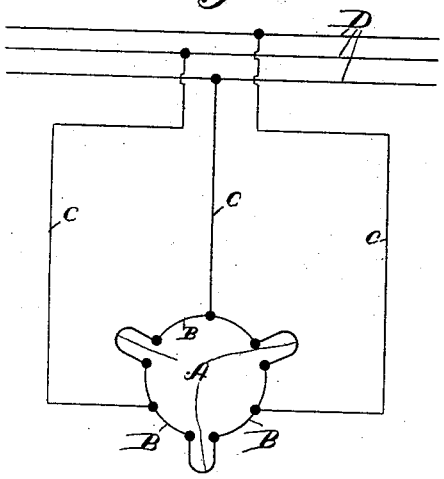
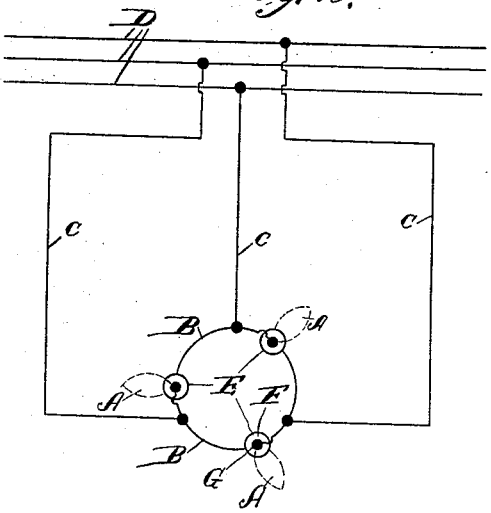


Fig. 2.



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FRANCIS B. BADT, OF CHICAGO, ILLINOIS.

ELECTRIC-LIGHTING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 489,598, dated January 10, 1893.

Application filed October 22, 1892. Serial No. 449,896. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. BADT, a subject of the King of Prussia, residing at Chicago, Cook county, Illinois, have invented a new and useful Improvement in Systems of Electric Lighting, of which the following is a specification.

My invention relates to systems of electric lighting especially such as are designed for use in electric street railways, and has for its object to provide convenient means for the use of multiphase currents in the production of incandescent light for any purpose, though I have specially considered it with regard to street railway work. It is illustrated in the accompanying drawings wherein:

Figure 1 is a diagrammatic view of a group of lamp filaments in proper circuit. Fig. 2, is a diagrammatic view of the same, showing the lamp sockets. Fig. 3, is a view of a group of lamps with sockets.

Like parts are indicated by the same letter in all the figures.

A A are lamp filaments connected by the conductors B B from each of which conductors leads a conductor C to one of the main conductors D. Each filament is of course associated with a lamp G, and such lamp is adapted to be inserted in the socket E so that the filament A is connected one end with the outer contact plate F and the other with the inner contact point G′ of such lamp socket. These lamp sockets are preferably associated with a rosette H which is provided with a series of pins J J connected with such wires C in case it is desired to have a removable group of lamps. K is a plate or block or base secured in suitable position and provided with a series of spring pockets L, shown diagrammatically, and which sockets are connected each by conductors C′ with one of the conductors D. These sockets and pins are so formed and associated that the group of lamps may be attached in any position by thrusting pins into the sockets and thus the conductors C C′ with the socket and pin make each a complete conductor from one of the conductors B to one of the conductors D.

The use and operation of my invention are as follows: The lamps, arranged as indicated so that the filaments are in series as illustrated in Fig. 1, will properly connect such filaments with the three conductors of a multiphase system. If there were more conductors in such system, there might be a corresponding increase of the number of lamps or filaments. As illustrated in Fig. 2, the filament of the lamp when brought into proper relation by the insertion of the lamp in its socket will make a continuous circuit from the inner terminal of the lamp socket, for example, through the filament to the outer circle, thence through the connecting conductor to the next lamp, and so on: These lamps are preferably arranged in a removable rosette from which pins project at the back, and there is a fixed plate or base having three spring sockets connected each with one of the main line conductors. The rosette containing the lamps or lamp sockets is placed in position by forcing the pins into such spring sockets where they are securely held. Of course the details of construction here shown might be varied without departing from the spirit of my invention. My invention is particularly distinguished from those arrangements of incandescent lamps for use on multiphase circuits in which special lamps are employed having sectional or a series of filaments therein. By my devices and apparatus, I am enabled to use the ordinary incandescent lamps.

I claim:

1. The combination of the conductors of a multiphase system with a group of incandescent lamps, the filaments of which are connected in series and conductors leading each from one main line conductor to a point in the series circuit between a pair of lamps.

2. The combination of the conductors of a multiphase system with local conductors leading one from each main conductor, and a series of lamp sockets, conductors connecting one terminal of each socket with the opposite terminal of the other, such conductor connected with the local conductor and a series of incandescent lamps to be inserted in such sockets.

3. The combination of a group of lamps with a supporting rosette, the filaments of

said lamps connected in series and having a local conductor leading from a point between each pair of lamps, a fixed base, a series of main line conductors, a local conductor from each main line conductor to a terminal on the fixed base and connecting devices whereby when the rosette and base are brought together each main line conductor is connected with the series conductor at a point between adjacent lamps.

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