Dec. 25, 1928. 1,696,663

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CONNECTER FOR INCANDESCENT LAMPS

Filed Dec. 29, 1927

Fig. 1

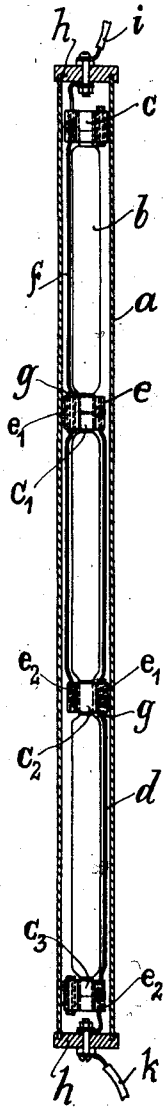


Fig. 2

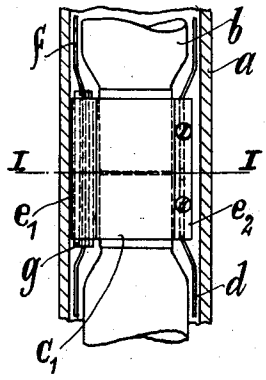


Fig. 4

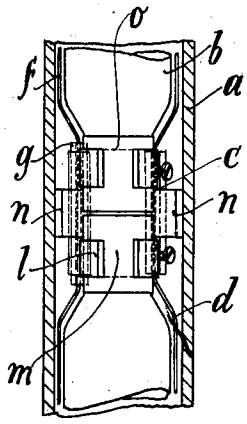


Fig. 3

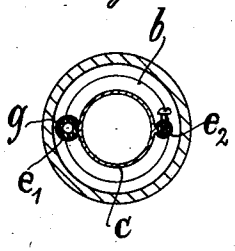
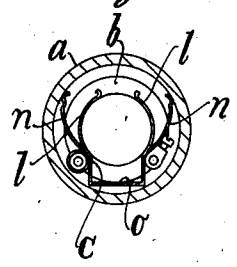


Fig. 5



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UNITED STATES PATENT OFFICE.

GEORG FRIEDRICH BECKER, OF BREMEN, GERMANY.

CONNECTER FOR INCANDESCENT LAMPS.

Application filed December 29, 1927, Serial No. 243,356, and in Germany May 25, 1926.

This invention relates to a lamp connecter of novel construction for illuminating devices of that type employing double ended incandescent lamps arranged in longitudinal alinement, the object of the invention being to provide interchangeable connecters for telescopically coupling the lamps so that they can be easily assembled and separated, and which connecters also provide means whereby the filaments of the lamps may be connected in parallel in a simple and reliable manner.

Numerous embodiments of the invention are possible, three of the same being illustrated, by way of example, in the accompanying drawing, in which:—

Fig. 1 shows an illuminating device embodying my invention, the casing tube appearing in longitudinal section.

Fig. 2 is a similar fragmentary view on a larger scale showing a connecter between two incandescent lamps, the connecter being of slightly modified form.

Fig. 3 is a cross-section on line I—I of Fig. 2.

Fig. 4 is a view similar to Fig. 2, showing another form of construction of connecter.

Fig. 5 is a cross-section of Fig. 4.

In an outer casing tube a of transparent or translucent glass a series of double-ended incandescent lamps b, are arranged and joined by connecting elements c, c', c^2, c^3, each lamp having end terminals to which its filament is conductively connected. The connecters c, c', c^2, c^3 are of like construction and interchangeable, and each is made of a suitable conducting metal and is bored to form a socket to telescopically receive the adjacent terminals of two longitudinally alined lamps. Each connecter is provided at one side with a tubular bead e in conducting connection with the body thereof and at its diametrically opposite side with a similar bead e' in which is fitted and suitably held an insulating sleeve g of glass or other good non-conducting material. The bead e is provided either with a single binding screw e^2, as shown in Figure 1, or with a pair of binding screws, as shown in Figures 2 and 4, for clamping electric conducting wires to the connecters. The use of a pair of binding screws is of advantage in affording greater convenience in the binding of sectional conducting wires, when such are employed.

The casing tube a is closed at its ends by removable disks or heads h, and these heads respectively carry binding posts to which are connected the positive and negative wires i and k, respectively, of an electric current supply system. The positive conductor i is connected to a feed conductor f arranged within the casing tube a and this conductor f is fitted in the beads e of the connecters c and c^2 and is fastened thereto by the set screw or set screws thereof, and passes intermediately through the insulating tube of the bead e' of the connecter c', whereby said conductor f is not electrically connected with the connecter c and c^2 but simply passes through and is insulated from the connecter c'. The conductor f is thus electrically connected with the upper conducting terminal and filament of the lamp b, for the downward flow of current through said filament, and is electrically connected by the connecter c^2 to the lower conducting terminal of the middle lamp and upper conducting terminal of the lower lamp for the upward flow of current through the filament of the middle lamp and downward flow of current through the filament of the lower lamp, the filaments of all the lamps being thus supplied with current from the feed conductor. Another or return conductor is arranged within the casing tube a and electrically connected at its lower end with the negative conductor k and thence extends through the beads e of connecters c^3 and c', and is clamped therein by the set screw or set screws thereof, and passes through the insulating sleeve g of the bead e' of connecter c^2. Current thus passes to this conductor from the filament of lamp b through connecter c', and from the filament of the middle lamp through the same connecter, while current from the filament of the lower lamp flows with this conductor and through the connecter c^3.

By this connection of the tubular lamps the advantage is obtained that, although they are parallel-connected, they may be directly connected to the connecting elements.

In the form of construction shown in Figs. 4 and 5 the connecting element c is constructed to provide open forks or clips l between the arms of which the terminals of the tubular lamps are clamped. For positively supporting the tubular lamps in the glass casing tube, the connecting elements c have resilient arms n and one or more bearing extensions o to engage the casing tube, so that the connecting elements will be supported in the casing tube at three or more points against oscillating movement.

1 claim:—

1. A connecter for elongated incandescent lamps of that type having a filament terminal at each end thereof comprising a body of conducting material formed with a socket to receive the adjacent terminals of two longitudinally alined lamps, said body having at one side of said socket a conductor wire receiving bead in electrical conductivity with the body and provided with wire securing means and said body having at its diametrically opposite side a conductor wire receiving bead having a surface for electrically insulating the wire therefrom.

2. A connecter for elongated incandescent lamps of that type having a filament terminal at each end thereof comprising a body of conducting material formed with a socket to receive the adjacent terminals of two longitudinally alined lamps, said body having at one side of said socket a conductor wire receiving bead in electrical conductivity with the body and provided with wire securing means and said body having at its diametrically opposite side a conductor wire receiving bead having a tube of non-conducting material fitted therein for electrically insulating the wire therefrom.

In testimony whereof I affix my signature.

GEORG FRIEDRICH BECKER.