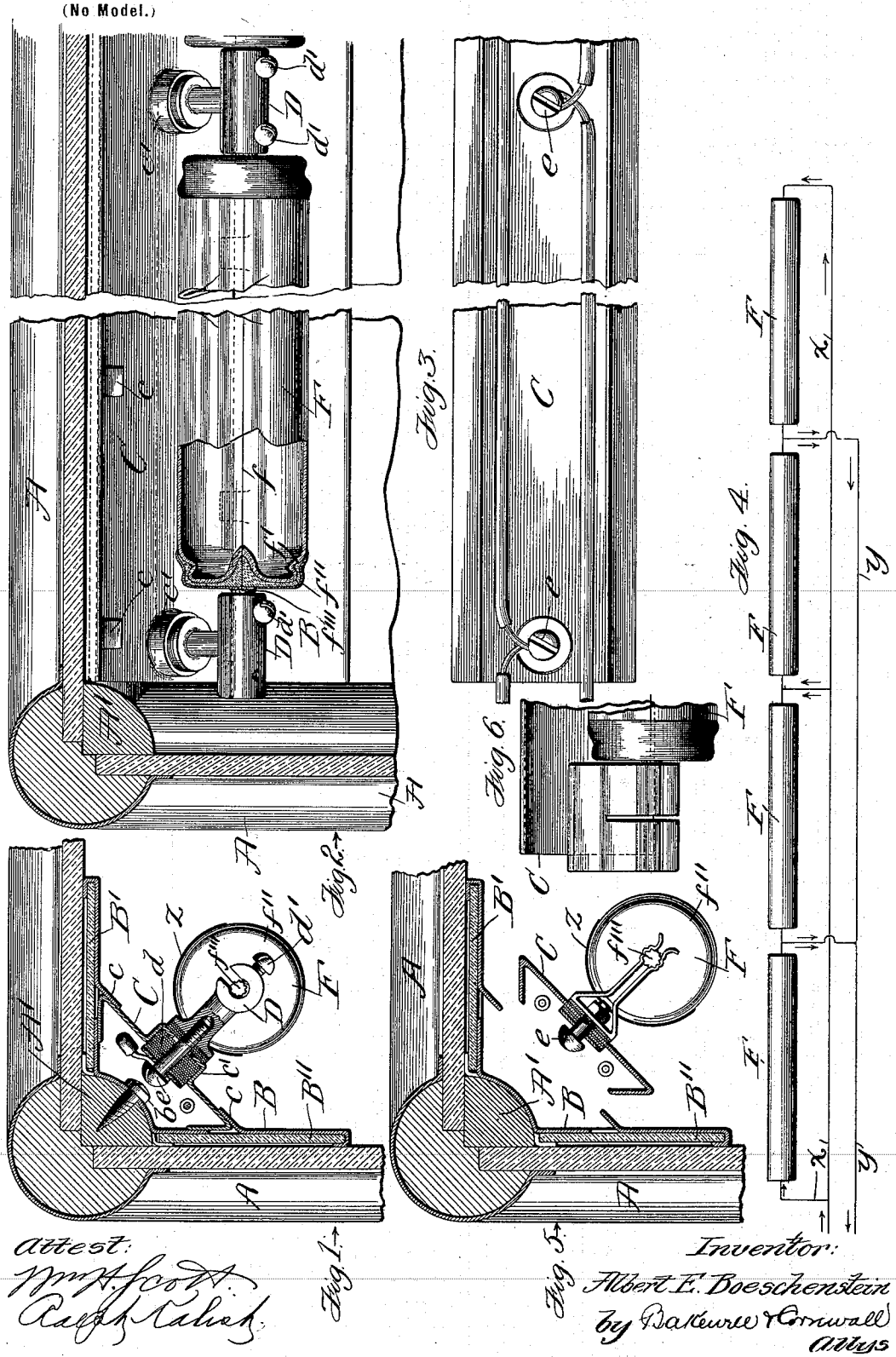
No. 615,471. Patented Dec. 6, 1898.

A. E. BOESCHENSTEIN.

REFLECTOR.

(Application filed Feb. 28, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ALBERT E. BOESCHENSTEIN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE MANHATTAN ELECTRIC COMPANY, OF SAME PLACE.

REFLECTOR.

SPECIFICATION forming part of Letters Patent No. 615,471, dated December 6, 1898.

Application filed February 28, 1898. Serial No. 672,021. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. BOESCHENSTEIN, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Reflectors, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a cross-sectional view of my improved reflector in position in a show-case. Fig. 2 is a view illustrating the reflector in elevation, part of the lamp being shown in section. Fig. 3 is a rear view of the lamp-support, showing the manner of making the connection. Fig. 4 is a schematic view illustrating a system of wiring. Fig. 5 is a sectional view illustrating the manner of removing or introducing the lamps and their support, said view also illustrating a modified form of terminal for the lamps; and Fig. 6 is an elevational view of said terminal, showing a portion of a lamp.

This invention relates to a new and useful improvement in reflectors for show-cases, windows, &c., the object being to arrange a reflector so that it will occupy a very small space and be practically hidden from view.

The essential features of the invention reside in the novel construction of the incandescent electric lamp to be used in connection with my reflector, in the novel construction of the supports and terminals for said lamp, in the novel manner of securing said support in the show-case, and in the novel manner of wiring the lamps; and, finally, the invention consists in the construction, arrangement, and combination of the several parts, all as will hereinafter be fully described and afterward pointed out in the claims.

In the drawings, A indicates a show-case of well-known construction, which I have employed in the drawings merely for the sake of showing the use and application of my reflector. It is obvious that the reflector can be used in windows, &c., or wherever desired. The show-case shown has a segment or glass support A′ in the corner, and I have formed the supporting-bracket for my reflector to conform to this fillet.

B indicates a bracket which is adapted to be secured in position by means of screws *b* or other suitable attaching devices, said bracket carrying mirrors B′ and B″ to hide the reflector proper. This bracket is preferably so constructed as to support the mirrors B and B″ in such a manner that said mirrors will be arranged at an angle to each other and are visible from and face the exterior, whereby said mirrors not only hide the reflector proper, but provide an ornamental finish for the show-case, window, &c. It is obvious, however, that said mirrors could as well face the interior by slightly changing the bracket. This bracket may be continuous or may be divided into short sections, if desired. Secured in this bracket is a lamp-support C, whose sides are preferably bent to form attaching-flanges and also to stiffen said support. These flanges are adapted to coöperate with the bracket, said support being held in position by tongues *c*, struck up from the bracket, as shown in Figs. 1 and 5.

As shown in Fig. 1, bosses *c′* are formed in the lamp-support, said bosses receiving insulation-washers *d*, which washers support an attaching-screw *e*, which binds a lamp-terminal D to the support. In this way the lamp-terminal is held firmly in position, but insulated from said support.

F indicates a lamp which is preferably cylindrical in shape and whose filament *f* is axially arranged relative to said lamp, said filament having its terminals at each end of the lamp. The ends of the lamp are formed with an annulus *f′* to receive plastic material which holds a cap *f″* in place. Extending from this cap is a terminal stud *f‴*, which is adapted to coöperate with the terminal D, secured to the support C. This terminal, as shown in Fig. 1, is a casting having a set-screw *d′* fixed in its end which is adapted to coöperate with the terminal stud *f‴* of the lamp and hold the same in position. I prefer to corrugate the terminal *f‴* longitudinally, as shown in Figs. 1 and 5, so that the lamp may be rotated partially and fixed in such adjusted position.

In Fig. 5 I have shown a modified form of

lamp-support, in which two spring-jaws are secured to the support C, so that the corrugated terminal stud f''' when placed in position between said jaws will be locked therein by reason of matching corrugations in said spring-jaws engaging therewith. These spring-jaws are preferably split, so that when a lamp is introduced or removed a companion lamp or lamps next adjacent will not be affected.

In Fig. 4 I have illustrated a section of wiring for the lamps, in which x indicates the main-line feed-wire and y the main-line return-wire. As the lamps are adapted to be arranged end to end to give a practically continuous and unbroken line of light, I connect the terminals of said lamps with the main-line wires, so that one connection will answer for two lamps. This is accomplished as shown in Fig. 3, wherein the insulation of the main-line wires is scraped off and a loop formed around the clamping-screw e, which is electrically connected with the support D. The return line-wire is similarly connected, but at different terminals, said return line-wire being connected at alternate terminals, while the main-line supply-wire is connected to the remaining or intermediate terminals.

In the event that it is desired to remove the lamps it is only necessary in the construction shown in Fig. 1 to loosen the set-screws, and the lamps may be removed and others inserted, or by tightening said set-screws the lamps may be locked in an adjusted position. This is advantageous, because I prefer to arrange the reflector on the globe of the lamp proper, as indicated by the line z in Figs. 1 and 5, whereby when said lamp is rotated the light may be thrown in any desired direction.

If it is desired to remove the lamp-supports, all that is necessary is to bend down the tongues of the bracket, when said supports and all the wires may be taken out.

By arranging the wires as shown in Fig. 5 a continuous wire may be employed, which is advantageous in that no poor connections are liable to occur by reason of improper soldering or the separation of wires. With the exception of the lamp-supports proper I have practically a continuous and unbroken line of light.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my reflector can be made and substituted for those herein shown and described without in the least departing from the nature and principle of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a longitudinally-disposed bracket, of a removable support, lamp-supports secured to, but insulated from, said removable support, and electric lamps having terminals at opposite ends which are received in said lamp-support, one lamp-support being common to two lamps, substantially as described.

2. The combination with a bracket, of lamp-supports mounted in said bracket, and lamps having corrugated terminals at opposite ends which coöperate with said lamp-supports, substantially as described.

3. The combination with an attaching-bracket, of lamp-supports insulated therefrom, a lamp having corrugated terminals at opposite ends for engaging said lamp-supports, and means for locking said lamp in an adjusted position, substantially as described.

4. The combination with an attaching-bracket, of a removable support mounted in said bracket, a plurality of lamp-supports mounted upon, and insulated from, said removable support, and lamps arranged in said lamp-supports said lamps being axially alined, substantially as described.

5. The combination with a bracket, of a removable support, tongues struck up from said bracket for securing said removable support in position, lamp-supports arranged upon said removable support, and insulated therefrom, clamping-screws for said lamp-supports, said clamping-screws acting, also, as binding-posts for line-wires, and lamps mounted in said lamp-supports, substantially as described.

6. The combination with a continuous lamp-support C, of a plurality of lamp-terminals D secured to, but insulated from, said support, lamps in said terminals, and attaching-screws e for securing said terminals in position, said attaching-screws acting, also, as binding-posts, substantially as described.

7. The combination with bracket B having tongues c, of a lamp-support C which is held in position by said tongues, bosses c' in said lamp-support, insulation-washers d, attaching-screws e, posts D, and lamps, substantially as described.

8. The combination with a lamp-bracket, of mirrors supported thereby, and arranged at an angle to each other so as to face the exterior, a lamp-support supported by said bracket so as to face the interior, and lamps fitted to said support, behind, or within the angle of the mirrors, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 23d day of February, 1898.

ALBERT E. BOESCHENSTEIN.

Witnesses:
F. R. CORNWALL,
HUGH K. WAGNER.