(No Model.)

R. F. BARNES.

SOCKET FOR INCANDESCENT ELECTRIC LAMPS.

No. 264,919. Patented Sept. 26, 1882.

Fig. 1.

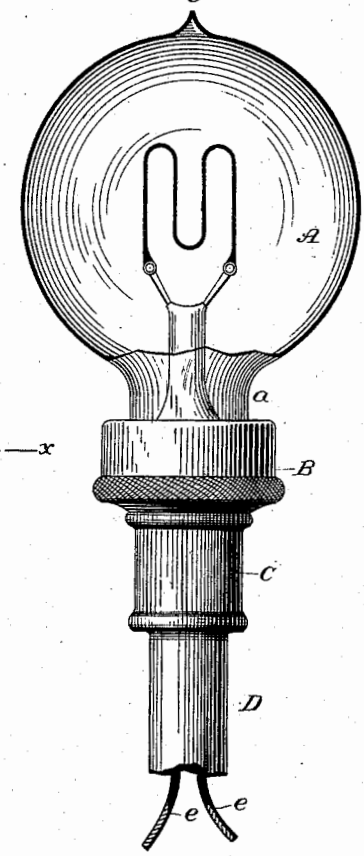


Fig. 3.

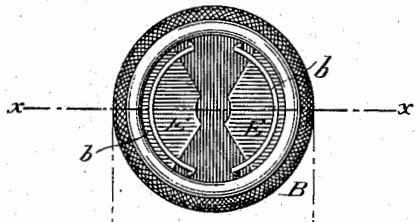


Fig. 4.

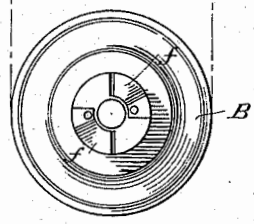


Fig. 5

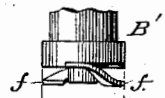


Fig. 6.

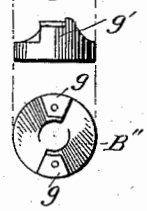
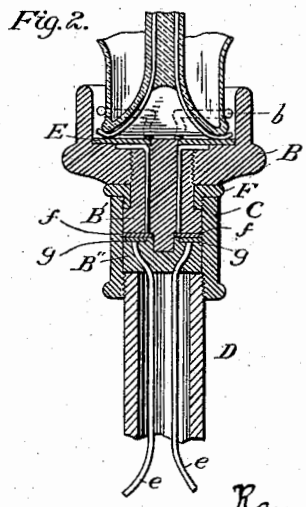


Fig. 2.



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UNITED STATES PATENT OFFICE.

RAYMOND F. BARNES, OF NEW YORK, N. Y., ASSIGNOR TO THE UNITED STATES ELECTRIC LIGHTING COMPANY, OF SAME PLACE.

SOCKET FOR INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 264,919, dated September 26, 1882.

Application filed April 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, RAYMOND F. BARNES, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Sockets for Incandescent Electric Lamps, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

The subject of my invention is a combined holder and circuit-breaker for incandescent electric lamps, arranged to be readily and easily attached to the end of a pipe containing the conducting-wires, to a bracket, arm, or similar support, and constructed in a manner to obviate all danger of derangement or accident which might possibly occur from short-circuiting in holders where the conductors are partly exposed. For this purpose I have constructed a device consisting in the main of a base containing terminal plates and a revolving holder containing contact points or springs, both the base and the holder being made of insulating material, the former being arranged for attachment to a suitable support and the latter constructed or combined with retaining-springs to hold a lamp in place.

The special construction of the holder which I have devised is illustrated in the accompanying drawings, where—

Figure 1 illustrates a lamp in a holder constructed in accordance with my invention, a portion of the globe of the lamp being cut away. Fig. 2 is a central vertical section of the holder and switch, taken on the line *x x* in Fig. 3. Fig. 3 is a plan view of the socket for the lamp; Fig. 4, a plan of the under side of the holder; Fig. 5, a detached view of the contact-springs on the holder, and Fig. 6 views in detail of the contact-plates of the base.

Similar letters of reference indicate corresponding parts.

C represents a cylinder of insulating material—such as hard rubber or vulcanite. It is internally screw-threaded at both ends, the lower thread being formed for the purpose of mounting the holder on a tube, bracket, or other support, (represented by D.)

Within the cylinder C fits a block of insulating material, B″, the upper side of which is formed with two prominent portions, *g′*, cut square on one side, as shown in Fig. 6. Upon these are fixed small metal plates *g*, which form the terminals of the circuit-wires *e e*, carried through the pipe or support D and through perforations in the plug B″. The cylinder C and plug B″ constitute the base, and should be fixed, or at least incapable, under ordinary circumstances, of shifting their position.

In order that the holder may be readily turned while all the parts are securely held together, I have adopted the construction shown in Fig. 2, where B′ represents a plug enlarged at its lower end and screw-threaded above. To its enlarged end contact strips or springs *f f* are fixed, and wires led up therefrom through perforations to contact-plates E. A nut, F, is screwed into the cylinder C, and prevents the plug B′ from being withdrawn.

A socket, B, is screwed to the upper end of plug B′. This socket contains the contact-plates E, and any suitable means for holding a lamp and maintaining the contact of the wires leading from the lamp with the plates E. I prefer for this purpose the arrangement shown—viz., a cup-shaped socket and springs *b b*, fixed thereto. In this case the lamps should have a ridge or bead at or near the end of the neck, which can be forced under the springs *b*, as shown in Fig. 2.

The action and manipulation of the holder, as thus described, will be well understood. By turning the part B the springs F are brought into contact with plates *g*, and the lamp is thereby brought into circuit. The projections *g′* should be of such shape that they will act as a ratchet in conjunction with the springs *f*, and so prevent the lamp from being turned in both directions. It results from this that the direction of the current through the lamp is reversed at every closing of the circuit.

By the above-described construction other important advantages are secured. For instance, the switch plugs or keys commonly employed are dispensed with, a good contact between the wires of the lamp and the switch-terminals is secured and maintained, and since the parts of the holder above designated as the cylinder C, the plugs B″ and B′, and the socket B are to be made of an insulating material—such as vulcanite—the conductors are entirely insulated and protected, and a short circuit or rupture of the wires cannot be effected

by careless persons or external objects—such as a loose wire.

The minor features may be in many ways modified in the construction of these devices without affecting the main object which I have in view—viz., to produce a device for holding incandescent lamps, which may serve both as a holder and circuit-breaker, and which will entirely inclose and protect the conducting-wires.

Having now described my invention, what I claim is—

1. The combination, with a stationary base having circuit-terminals, of a rotary incandescent lamp-holder having springs capable of being brought into and out of contact with the terminals of the base by the rotation of the holder in one direction, the base and holder being both composed of insulating material and inclosing the conductors, substantially as and for the purpose set forth.

2. A holder for incandescent lamps, consisting of the combination of a cylinder, C, and plug B″, containing circuit-terminals and constituting a base, with a lamp-socket, B, and rotary plug B′, containing conductors and contact-strips capable of being brought into and out of contact with the terminals of the base by the rotation of the socket and plug, substantially as and for the purpose set forth.

3. The combination of socket B and plug B′, containing electrical contacts and conductors, as set forth, of a base in which the plug B′ is arranged to turn, a circuit-breaker in said base, and a nut, F, for preventing the separation of the socket and base, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of April, 1882.

RAYMOND F. BARNES.

Witnesses:
PARKER W. PAGE,
W. FRISBY.