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PATENTED MAR. 28, 1905.

G. C. BAILLARD,
INCANDESCENT ELECTRIC LAMP SOCKET.

APPLICATION FILED MAY 28, 1902.

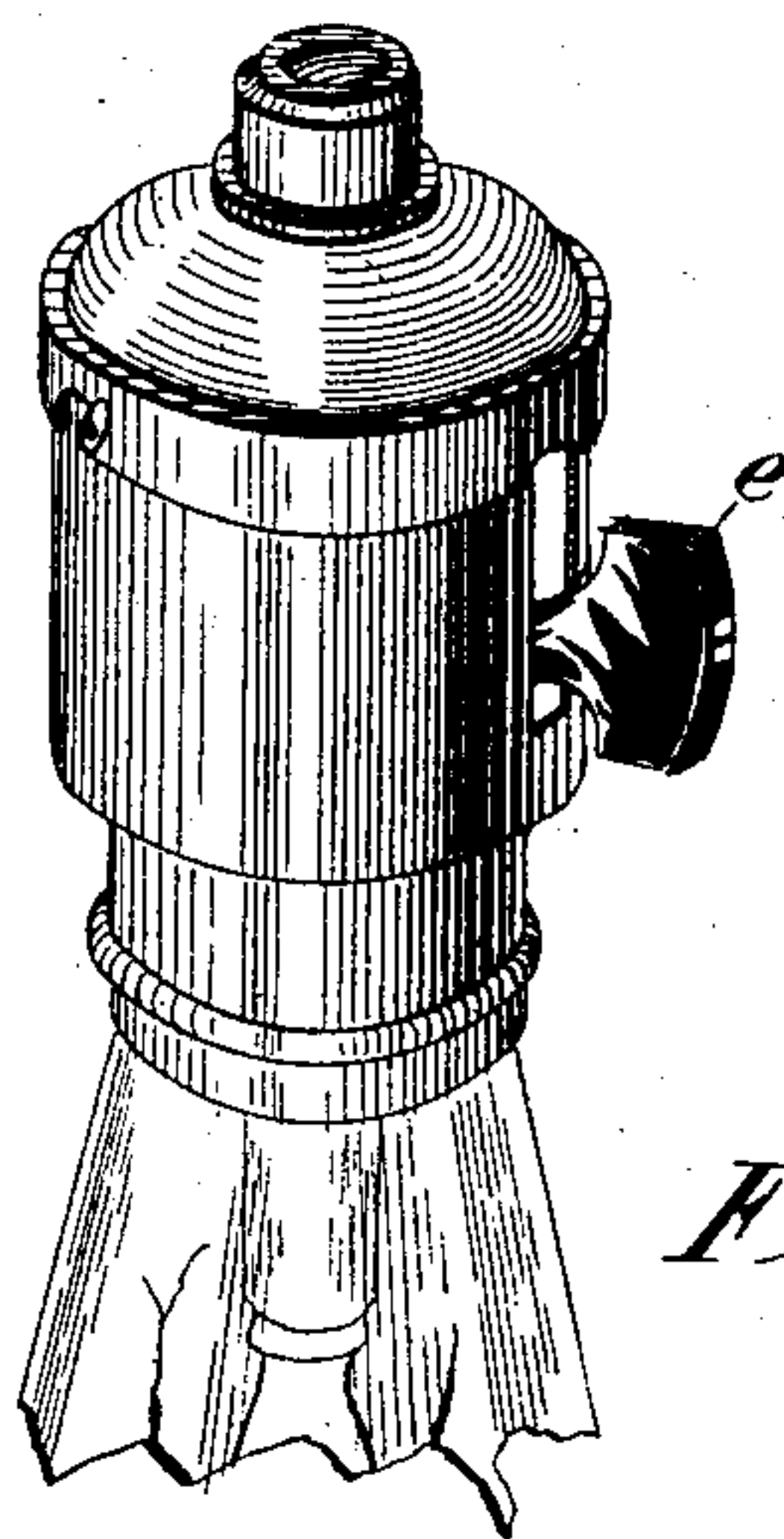


Fig. 4

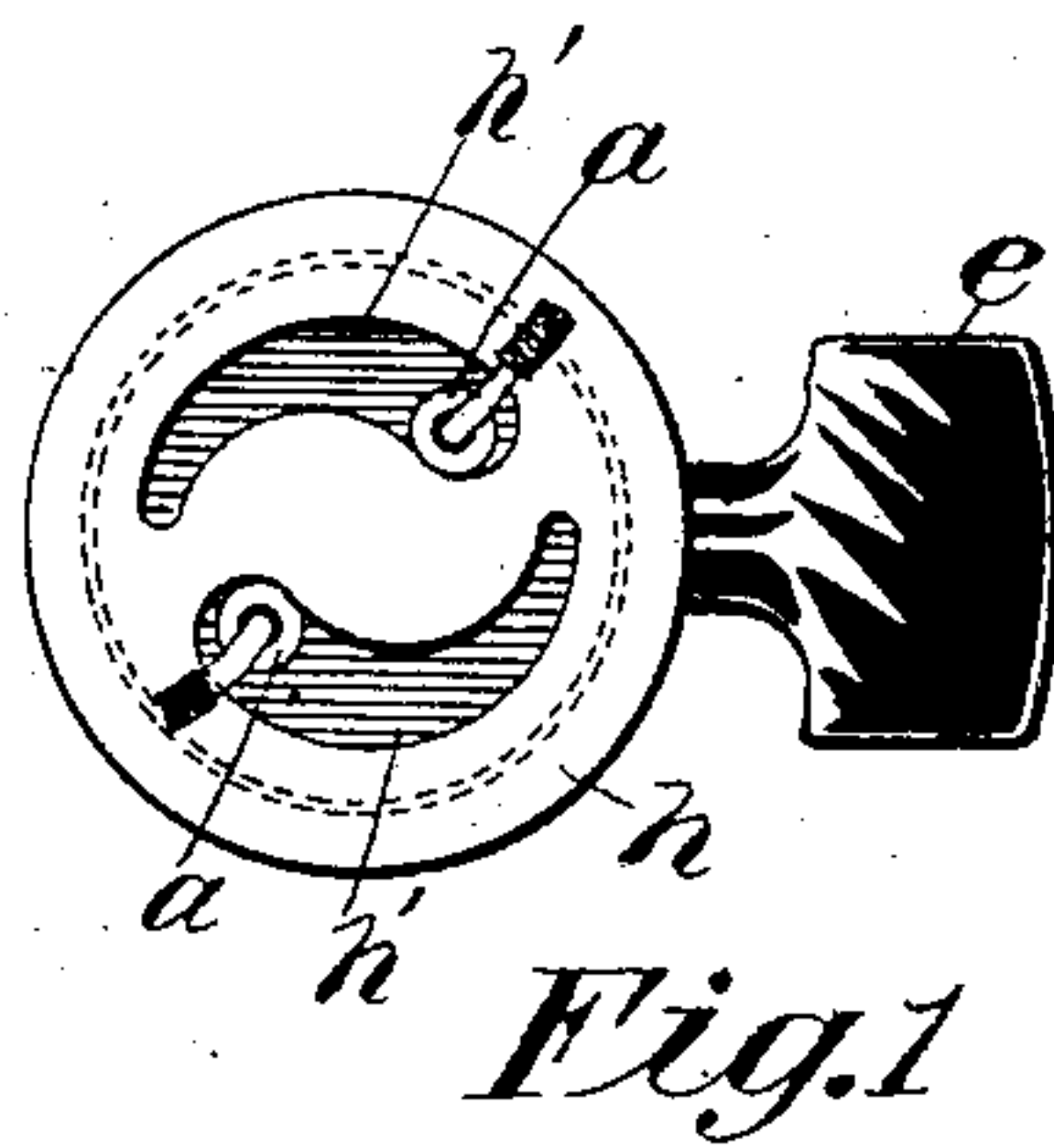


Fig. 1

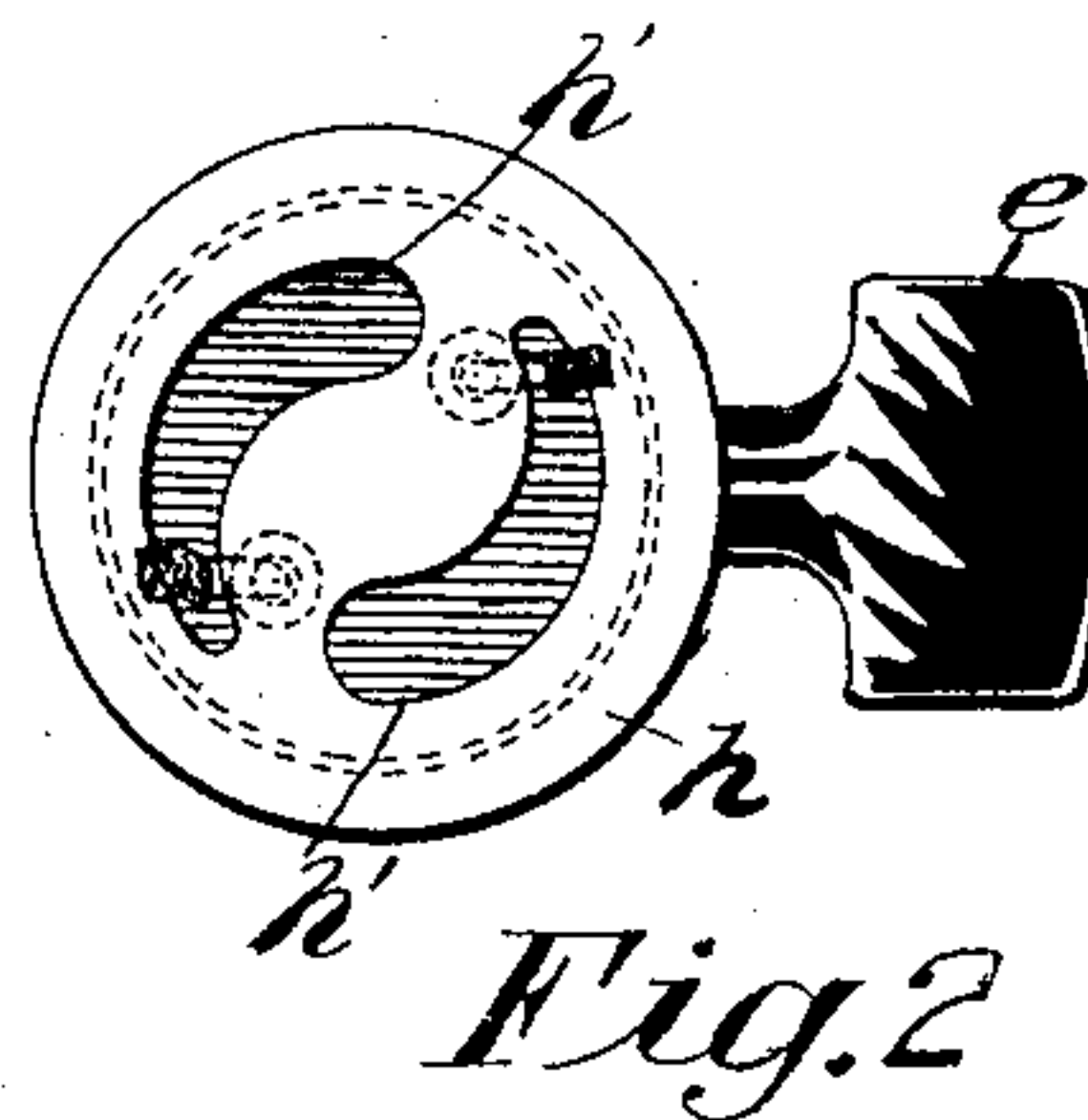


Fig. 2

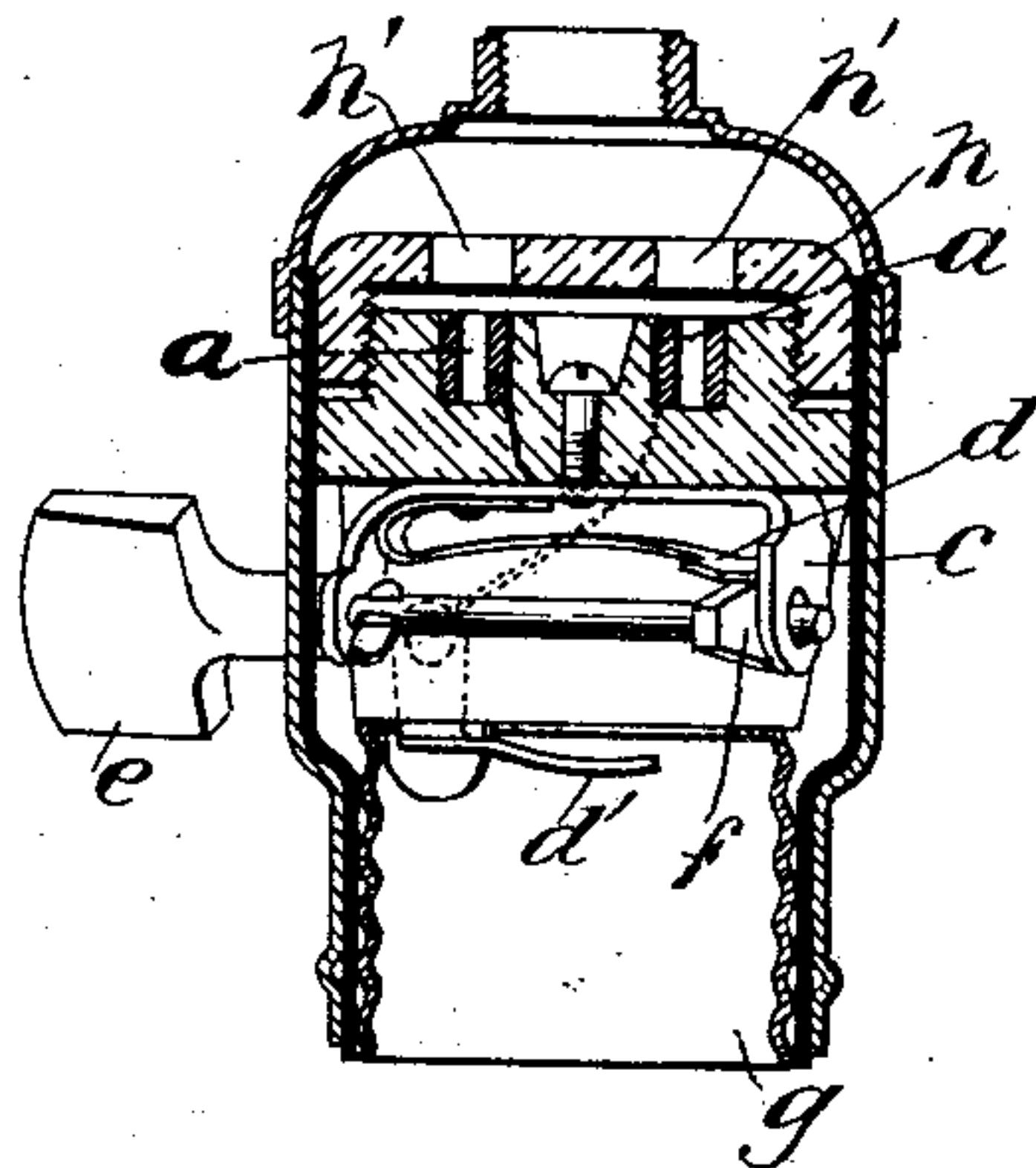


Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE C. BAILLARD, OF BROOKLYN, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

INCANDESCENT-ELECTRIC-LAMP SOCKET.

SPECIFICATION forming part of Letters Patent No. 785,997, dated March 28, 1905.

Application filed May 28, 1902. Serial No. 109,302.

To all whom it may concern:

Be it known that I, GEORGE C. BAILLARD, a citizen of the United States, residing in the borough of Brooklyn, city of New York, State of New York, have invented certain new and useful Improvements in Incandescent-Electric-Lamp Sockets, of which the following is a specification.

In Letters Patent of the United States No. 472,800, granted to me April 12, 1892, I have shown and claimed a device for electrically coupling the bared ends of circuit-wires to tubular terminals. That patent shows such a construction in connection with an incandescent lamp in an organization wherein the ordinary lamp-socket is dispensed with.

My present improvement in lamp-sockets provides that the circuit-wires shall be permanently connected with the socket by means of tubular terminals and a clamping device of substantially the character shown in said patent. I have discovered that with a lamp-socket so constructed a good permanent electrical connection is afforded. The bared ends of the circuit-wires are completely covered and protected, and the necessity for making the ordinary solid connections between the circuit-wires and contact devices of the lamp is obviated, thereby materially reducing the labor and expense of installation without materially increasing the cost of the lamp-socket.

My invention is applicable to the several standard types of lamp-sockets now in use, and the invention is not dependent upon any particular arrangement of contacts, switch-key, or other essentials of an ordinary socket.

In the accompanying drawings I have shown the invention applied to two familiar styles of sockets.

Figure 1 is a plan view of a lamp-socket with the casing removed, showing the tubular terminals exposed and wires inserted therein; Fig. 2, a like view showing the wires clamped by the slotted cap; Fig. 3, a longitudinal section, and Fig. 4 a perspective view of a complete socket and the upper part of lamp inserted in it.

In the upper face of the usual block of insulating material constituting the body of the

socket I sink two tubular contact-pieces *a a*. One is permanently connected with a contact *d'*, with which the center terminal on the base of the ordinary lamp makes connection. The other tubular terminal is similarly permanently electrically connected with the yoke *c*, carrying the spring contact-tongue *d* and in the upturned ends of which is mounted the spindle of the switch or key *e*, carrying the ordinary switch-block *f*, adapted to place the yielding switch tongue, or finger in electrical contact with the threaded socket or sleeve *g*, into which the lamp-base screws. The upper end of the block of insulating material is shouldered and preferably threaded, as shown, to receive a screw-cap *h*, having in it curved slots *h'*. These slots are so disposed that in one position of the cap the tubular terminals are exposed, and when the cap is rotated the solid part thereof between the slots covers the terminals. Of course the socket is to be provided with the ordinary spun sheet-metal cover, by which it is attached to the fixture, and any other usual adjuncts of a complete device.

The mode of operation is as follows: Insulation having been removed for a suitable distance from the ends of the ordinary insulated circuit-wires, the bared ends are passed through slots into the tubular terminals. The cap is then rotated and the edges of the slot moving across the open or tubular terminals bind the wires in and against the sides thereof, and continued rotation of the cap, accompanied by continued lateral displacement of the wires, results in the complete covering of the tubular terminals as well as the bared ends of the wires. The wires are held not only by lateral or transverse strain or clamping action, but also when the cap is screwed down tight by the direct axial pressure of the cap upon the part of the wire which is laterally displaced and lies upon the upper face of the block of insulating material at one side of the tubular terminals. The walls of the slot which act upon the wires I term "vertical" clamping edges. The bared ends of the wires when inserted extend past these clamping edges into the terminals.

I have used the term "tubular terminal," as I prefer to so make them; but obviously they need not be complete tubes. It is only essential that they should have a cavity with-
5 in which the ends of the wires may be inserted and a conducting piece or terminal properly disposed at that edge or side of the cavity toward which the clamping edges move. By the term "tubular terminals" I intend to in-
10 clude any such obvious modification of structure.

I claim as my invention—

1. A lamp-socket having a base of insulating material, lamp-contacts secured to said base,
5 tubular terminals permanently electrically connected with the respective contacts, and a clamping device having clamping edges adapted to be moved across the terminals at right angles to their axes and past which the bared
20 ends of the circuit-wires extend when inserted into the terminals whereby, when the wires are inserted, the clamping device may be moved transversely and its edges caused to

clamp or pinch the wires against the sides or edges of the terminals. 25

2. A lamp-socket having a base consisting of a single piece of insulating material with a reduced upper end provided with peripheral screw-threads, a screw-shell and center con-
30 tacts mounted on the lower end of said base, line-terminals comprising apertured metallic pieces secured to the upper end of said base and electrically connected with the respective
35 screw-threads to the end of said base over the line-terminals and provided with slots adapted to aline with the apertures in the metallic pieces when said cap is in one position
40 and to disaline therewith when the cap is partially rotated.

In testimony whereof I have hereunto subscribed my name.

GEORGE C. BAILLARD.

Witnesses:

KATHARINE MACMAHON,
WILLIAM A. STAHLIN.