(Model.)

S. BERGMANN.

CONNECTION FOR ELECTRIC LIGHT FIXTURES.

No. 275,749. Patented Apr. 10, 1883.

FIG. 1.

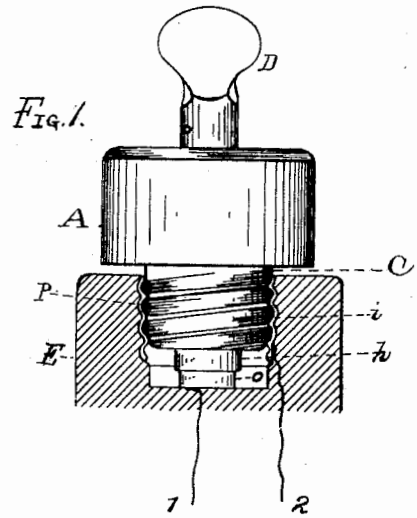


FIG. 2.

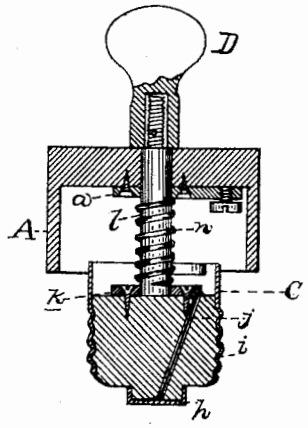
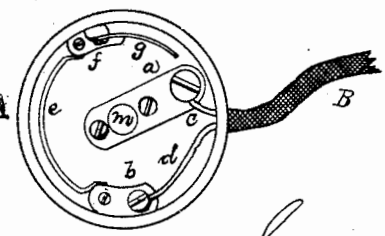


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SIGMUND BERGMANN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO EDWARD H. JOHNSON, OF SAME PLACE.

CONNECTION FOR ELECTRIC-LIGHT FIXTURES.

SPECIFICATION forming part of Letters Patent No. 275,749, dated April 10, 1883.

Application filed October 9, 1882. (Model.)

To all whom it may concern:

Be it known that I, SIGMUND BERGMANN, of the city, county, and State of New York, have invented a certain new and useful Improvement in Connections for Electric-Light Fixtures, of which the following is a specification.

My invention relates to the connections of electrical drop-lights or stand-lamps which are connected by flexible wires with main or other wires of a house. Such flexible wires are usually connected with the exterior terminals of a screw-plug which is adapted to enter a socket having corresponding interior terminals connected with the house-wires. Such socket may be the ordinary lamp-socket, attached to the arm of an electrolier or wall-bracket; or it may be inserted in the wall, ceiling, or floor of the room. In the use of such plugs inconvenience is experienced because in screwing them into the socket the flexible cord which contains the conducting-wires becomes twisted, which may cause it to break, or may bring the two conductors into contact and cause a short circuit.

The object of my invention is to obviate such inconvenience, which I accomplish by constructing a plug in which the part to which the conducting-wires are attached is stationary, while the part which carries the terminals corresponding with those of the socket is screw-threaded and swiveled to the first part and provided with a projecting key, by which it may be screwed in and out of the socket without affecting the rest of the plug. The stationary portion is a box or casing of insulation having contact-plates within it and a suitable aperture or apertures, through which pass the flexible conductors which are connected with said plates. The movable portion consists of a plug of insulating material having a contact-plate at its end and a screw-threaded contact-ring around it, such plate and ring making contact with corresponding terminals of a socket, as before mentioned, and having sliding spring-connections with the contact-plates on the stationary portion. One of such connections is a flat spring attached to one of the plates within the outer casing and bearing against the inside of the band or ring terminal of the plug which extends up beyond the insulating portion. From the other or plate terminal of the plug a wire extends through said plug to a plate on its upper surface, from which a metal rod extends up, making contact with the second plate of the stationary casing and extending through an aperture in such casing. Preferably the outer end of the rod is screw-threaded, and a thumb-piece of insulating material is screwed onto said end, or otherwise secured thereto. A spiral spring is coiled around the portion of the rod within the casing, and, being pressed against the upper plate of the plug and the plate on the inside of the casing, makes an additional contact between them. The plug may be inserted in its socket and screwed in or out by turning the thumb-piece without moving the stationary casing and twisting the wires.

The above is illustrated in the annexed drawings, in which Figure 1 is a view in elevation of the plug inserted in its socket, the latter being shown in section; Fig. 2, a section of the plug, and Fig. 3 a plan view of the interior of the stationary box or casing.

A represents the stationary portion of the plug, provided with interior contact-plates, *a b*, to which are attached by means of binding-screws the wires *c d*, which are combined in the flexible cord B, running to a drop or stand lamp. From the plate *b* a piece of lead wire, *e*, forming a safety-catch, runs to a plate, *f*, from which projects a flat spring, *g*. The safety-catch may, however, be dispensed with, and the spring *g* attached directly to plate *b*.

C is the plug proper, carrying at its lower end a contact-plate, *h*, and encircled by a screw-threaded band or ring, *i*. The spring *g* extends downwardly such a distance that it will always be in contact with the band *i*. From contact-plate *h* a wire, *j*, passes through the plug C to plate *k*, secured to the top of the plug. A metal rod, *l*, extends up from plate *k*, passing through an aperture, *m*, in plate *a*, and extending through box A. Its outer end is screw-threaded, and the thumb-piece D is screwed tightly onto such end; or it may be attached in any other suitable manner. A spiral spring, *n*, is coiled around rod *l*, and is pressed against plates *a* and *k*.

E is a socket for receiving the plug, having interior terminals, *o p*, corresponding with the terminals *h i* of the plug, and wires 1 2 run to

the terminals *o p*. The plug is screwed into the socket by turning the thumb-piece D and rod *l* while the part A is held stationary. The circuit is then by wire 1, contact-plates *o k*, wire *j*, plate *k*, rod *l*, and spring *n* to plate *a*, thence by wire *c* to the lamp, returning by wire *d*, plate *b*, safety-catch *e*, plate *f*, spring *g*, screw-threaded band *i*, socket-terminal *p*, and wire 2.

What I claim is—

1. In a connecting-plug for electric-light fixtures, the combination of a stationary portion carrying terminals for making connection with an external circuit, a movable portion carrying exterior terminals for making connection with corresponding terminals of a socket, and electrical connections between said stationary terminals and said movable terminals, substantially as set forth.

2. The combination, with the outer stationary casing, of the screw-threaded plug and the rod and thumb-piece for turning such plug, substantially as set forth.

3. The combination of the terminals on the outer casing, the terminals on the movable portion of the plug, and sliding electrical connections between them, substantially as set forth.

4. The combination, with a plate on the inside of the stationary casing and a band or ring on the movable plug, of a flat spring attached to said plate and bearing against said band or ring, substantially as set forth.

5. The combination of the insulating parts A C and the electric terminals carried by them, with the plates *k* and *a*, the rod *l*, and spiral spring *n*, substantially as set forth.

This specification signed and witnessed this 21st day of September, 1882.

SIGMUND BERGMANN.

Witnesses:
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