339-71 Ex. N. 15

DRAFTSMAN.

No. 860,482. PATENTED JULY 16, 1907.

F. W. JAEGER & G. A. LANDSEE.

CONTACT PLUG FOR SOCKETS FOR ELECTRIC LIGHTS.

APPLICATION FILED MAY 4, 1906.

Fig. 1

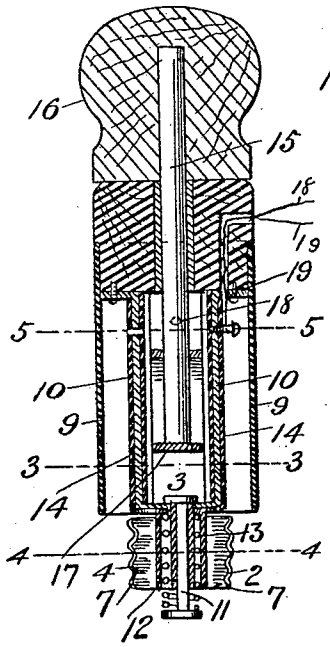


Fig. 2

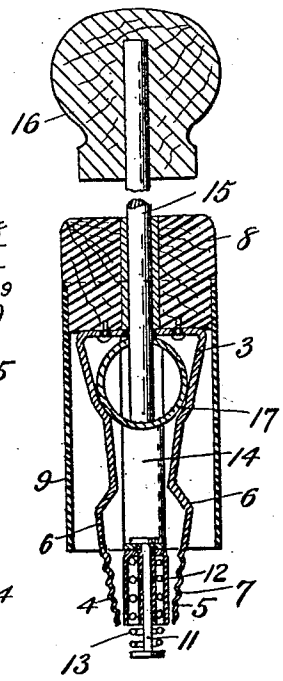


Fig. 5

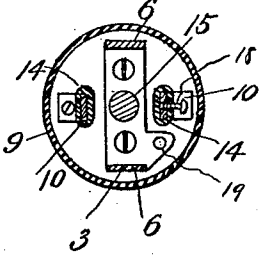


Fig. 4

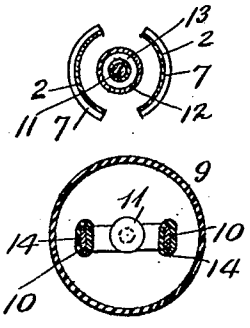
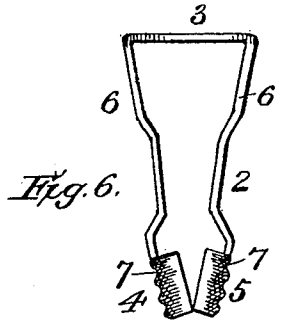


Fig. 6.



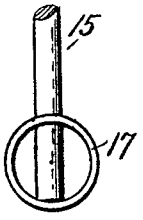


Fig. 7

Fig. 3

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CONTACT-PLUG FOR SOCKETS FOR ELECTRIC LIGHTS.

No. 860,482. Specification of Letters Patent. Patented July 16, 1907.

Application filed May 4, 1906. Serial No. 315,217.

To all whom it may concern:

Be it known that we, FREDERICK W. JAEGER and GUSTAV A. LANDSEE, citizens of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Contact-Plugs for Sockets for Electric Lights, of which the following is a specification.

Our invention relates to improvements in what may be termed contact-plugs for sockets for electric lights.

Its object is primarily to effect the insertion of the plug without the screwing action and accordingly make the contact immediately and with facility, and yet provide for this form of connection between the contact-plug and socket; and to accomplish these ends in a simple, economic and effective manner.

Said invention consists of certain features substantially as hereinafter fully disclosed and pointed out by the claims.

In the accompanying drawing illustrating the preferred embodiment of our invention—Figure 1 is a vertical sectional view thereof. Fig. 2 is a like section of the same viewed at right-angles to the plane of the section of Fig. 1, with the plunger for spreading the screw-thread ended spring arms of the attaching or clasp-member partly broken away and in retracted or withdrawn position. Fig. 3 is a cross-section thereof on the line 3—3 of Fig. 1. Fig. 4 is a like section on the line 4—4 of Fig. 1. Fig. 5 is also a like section on the line 5—5 of Fig. 1, viewing upward. Fig. 6 is a disassembled view of the bisected screw-threaded clasp-member. Fig. 7 is a like view of the slidable wedge-member, or plunger, partly broken away.

In the disclosure of our invention, we employ a contact-plug 2 of peculiar construction, the same comprising a practically split plug proper 3 formed of two members 4, 5 of arcuate external outline and having their lower end-portions normally in contact and their upper ends fixed to the inner ends of a yoke-like shaped spring 6 in a single or continuous piece. Said plug-members have outer screw-threaded surfaces 7 which are effective to mesh or engage with the internally screw-threaded surface of the ordinary wall socket (not shown) for effecting connection therebetween. The arms of the spring or yoke 6 are each carried inward toward each other and downward in a straight line a short distance the purpose of which will presently appear. Said yoke or spring 6 has its upper end-portion suitably secured to the lower end of a suitable handle 8 of non-conducting material, as wood. Also to said handle, laterally, is secured a fibrous or non-conducting cylinder or casing 9 reaching down around and guarding or inclosing in the main the aforesaid parts. Also depending from said handle, but in a plane at right-angles to said yoke or spring, is a frame-like member or bracket 10 having its upper laterally extended terminals suitably secured to the lower end of said handle. What may be termed a plunger or contact 11 having upper and lower headed ends passes freely or loosely through a central hole in the lower cross-bar of the frame or bracket 10 and has inserted thereon a helical or coiled spring 13 upon which is slipped a rubber or insulating tube 12 and which provides for holding said plunger or contact in position under spring-pressure and for its automatic seating and to provide for bringing the threads of the plug-member and the socket receiving the same into automatic registration. The frame or bracket 10 has suitably applied or inserted thereon rubber tubes or insulation 14; and extending loosely and centrally through the handle 8 is a rod or stem 15, having fixed to its upper end, above said handle a handle 16 of its own, and which rod or stem has fixed to its inner end a "wedge" or device 17, effective to engage, as said rod through its handle is suitably actuated, the inwardly extended straight portions of the spring-arms of the screw-threaded plug-members 4, 5 for spreading the latter apart and effecting connection therebetween and the corresponding surface of the socket before noted. This arrangement, it will be noted, thus provides for the insertion of the contact-plug into its socket, without resorting to the screwing action ordinarily required for that purpose and yet retaining such form of connection between these parts and which connection is effected herein immediately and with facility, as is apparent.

The wire-connections are made with the frame-member 10, as at 18, and with the yoke or spring 7 as at 19 to initiate the electrical connections as, it is believed, will be readily understood from the drawing.

It will be understood that the points of contact for aiding the establishment of the electrical circuit are made between the socket and plug screw-threaded connections and at the plunger 11.

We claim—

1. A device of the character described, comprising a contact-plug having screw-threaded members provided with spring-arms, means adapted to be manually actuated for spreading said plug-members, and an automatically retained contact-plunger cooperating with said screw-threaded members as set forth.

2. A contact-plug comprising screw-threaded plug-members, arcuate in cross-section and converging toward each other at their free ends, and terminating the spring-arms of a yoke, a handle-member having said yoke attached thereto, and a manually actuated wedge arranged in a line central of said screw-threaded members and effective to spread the latter.

3. A contact-plug comprising screw-threaded plug-members, arcuate in cross-section and converging toward each other at their free ends and terminating the spring-arms of a yoke, a handle-member having said yoke attached thereto, and a second handle-member superposed with relation to the aforesaid handle-member and having rod-connection with said wedge, passing through the aforesaid handle-member.

4. A contact-plug comprising screw-threaded plug-mem-

bers, arcuate in cross-section and converging toward each other at their free ends, a plunger-like contact-member arranged intermediately of said plug-members with one end projecting beyond the latter and having applied thereto an insulated spring for facilitating the contacting action of said plug-members as set forth, a manually actuated wedge arranged in a line central of said plug-members and effective for spreading the latter, a handle carrying said plug-members, and a second handle-member having rod-connection with said wedge, passing freely through the aforesaid handle-member.

In testimony whereof we have signed our name to this specification in the presence of two subscribing witnesses.

FREDERICK W. JAEGER.
GUSTAV A. LANDSEE.

Witnesses:
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