

H. HUBBELL.  
ATTACHMENT PLUG.  
APPLICATION FILED JULY 1, 1904.

Fig. 1.

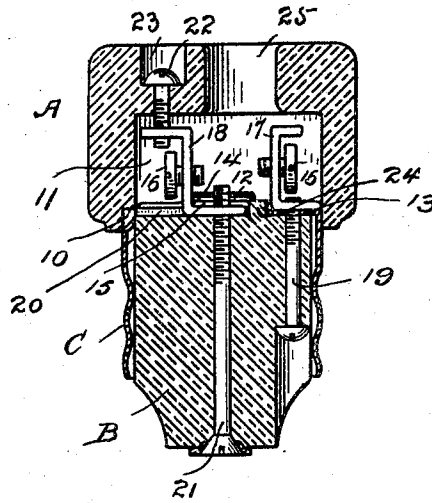


Fig. 2.

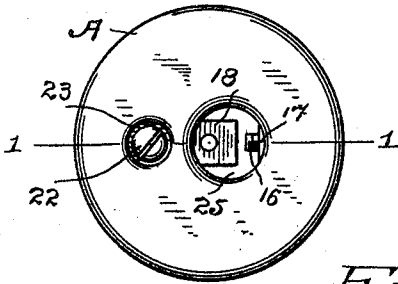


Fig. 3.

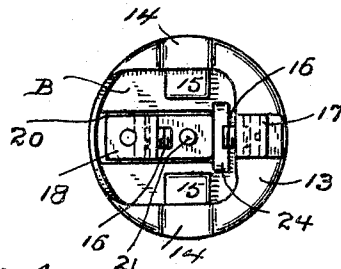
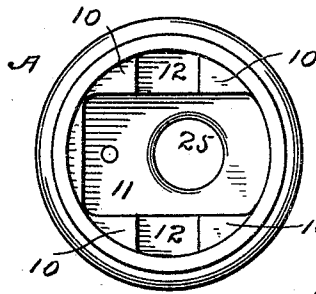


Fig. 4.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## ATTACHMENT-PLUG.

SPECIFICATION forming part of Letters Patent No. 783,275, dated February 21, 1905.

Application filed July 1, 1904. Serial No. 214,904.

*To all whom it may concern:*

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Attachment-Plug, of which the following is a specification.

My invention relates more especially to attachment-plugs adapted to receive the Edison type of lamps—that is, a plug consisting, essentially, of a metallic screw-shell and an insulating-block and a cap made of porcelain; and my invention has for its object to produce an attachment-plug in which the number of parts shall be reduced to the minimum, in which the parts shall be arranged in more compact form than has heretofore been possible, thus enabling me to use less material and effecting a double saving in the cost of construction, and in which all danger of the screw-shell stripping off from the insulating-block when the screw-shell is turned hard into a lamp-socket shall be avoided. Heretofore most of the screw-shells used in this type of attachment-plugs have been bottomless. A piece of metal has been soldered on one side of the inner periphery of the shell, which has been the only bearing-point of the insulating-block upon the shell, so that the tendency has been when the attachment-plug was screwed hard into a lamp-socket to strip the screw-shell from the insulating-block, thereby destroying the attachment-plug. This difficulty I wholly overcome by providing the screw-shell with an integral bottom, upon which the inner end of the insulating-block bears and which itself bears upon the cap. I thus dispense with the cost of attaching a separate piece of metal to the screw-shell and provide a construction in which it is made impossible to separate the screw-shell from the insulating-block, for the reason that no matter how hard the attachment-plug is screwed into a lamp-socket the only effect can be to force the insulating-block against the bottom of the screw-shell. The insulating-block and the cap, moreover, are made smaller than those heretofore in use, require less porcelain, and are perfectly simple to mold.

With the above and other objects in view I have devised the novel attachment-plug of

which the following description, in connection with the accompanying drawings, is a specification, reference characters being used to indicate the several parts.

Figure 1 is a longitudinal section, on an enlarged scale, of my novel attachment-plug on the line 1 1 in Fig. 2; Fig. 2, a top plan view as seen in Fig. 1; Fig. 3, an inverted plan view of the insulating-block and screw-shell detached with both binding-screw brackets in place, and Fig. 4 is a plan view of the cap detached.

A denotes the cap, B the insulating-block, both of which are blocks of porcelain, and C the screw-shell, which is of sheet metal. The cap is provided in its inner side with a shallow circular recess which receives the inner end of the screw-shell and insulating-block and upon the bottom of which (indicated by 10) the bottom of the screw-shell bears. Below recess 10 is a chamber 11, which receives the binding-screw brackets and binding-screws, and on opposite sides of chamber 11 below recess 10 are recesses 12, which receive corresponding bosses on the insulating-block and depressions in the screw-shell, as will presently be more fully explained. The screw-shell differs from screw-shells of this type heretofore in use in that it is provided with an integral bottom 13, upon which the insulating-block bears, as is clearly shown in Figs. 1 and 3. This bottom of the screw-shell is provided with depressions 14, which receive bosses 15 on the insulating-block, as clearly shown in Fig. 3, and the depressions in turn engage recesses 12 in the cap, whereby when assembled the parts are locked against movement relative to each other.

16 denotes binding-screws, and 17 and 18 the binding-screw brackets. The base of bracket 17 rests against the bottom of the screw-shell and is secured thereto by a screw 19, which passes longitudinally through the insulating-block and through the bottom of the screw-shell and engages the bracket. The base of bracket 18 lies against the inner end of the insulating-block. A recess 20, as shown in the drawings, may or may not be provided to receive it. This bracket is secured to the insulating-block by means of a central screw

21, which passes longitudinally through the insulating-block and engages the base of the bracket.

The cap is locked to the insulating-block and screw-shell by means of a screw 22, which passes from the outer side of the cap into chamber 11 and engages bracket 18, as clearly shown in Fig. 1. A recess 23 may or may not be provided in the cap to receive the head of this screw. By providing the recess the screw may be made much shorter and a saving effected in the cost of production.

24 indicates a boss on the inner end of the insulating-block, which lies between the bases of the binding-screw brackets and effectually insulates them.

25 indicates a hole in the cap, through which the conductors (not shown) pass, this hole in the present instance being shown at one side of the center, although this is a mere detail of construction.

It will be seen that when the insulating-block, screw-shell, and cap are assembled and screws 21 and 22 are tightened up the said parts will be locked securely together, the bottom of the screw-shell upon which the insulating-block bears and which itself bears upon the bottom of a recess in the cap being clamped between the cap and the insulating-block, and any movement of the parts relative to each other being made impossible through the engagement of the bosses and corresponding depressions on the insulating-

block and the screw-shell with the recesses in the cap. It will furthermore be noted that when the screw-shell is turned hard into a lamp-socket it will be impossible to strip the screw-shell from the insulating-block, for the reason that the turning in of the screw-shell hard will merely act to force the inner end of the insulating-block against the bottom of the screw-shell.

Having thus described my invention, I claim—

1. In an attachment-plug, the combination with a cap and an insulating-block, of a screw-shell which receives the insulating-block and is provided with a bottom upon which the insulating-block bears and which bears upon the cap, said cap-block and shell being formed with interengaging portions to prevent relative movements when the parts are assembled.

2. In an attachment-plug the combination with a screw-shell having a bottom provided with depressions and an insulating-block lying within the screw-shell and having bosses engaging the depressions, of a cap having recesses adapted to receive said bosses and depressions, whereby when assembled the parts are held against movement relative to each other.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY HUBBELL.

Witnesses:

A. M. WOOSTER,  
S. W. ATHERTON.