Dec. 9, 1958 A. ABRAMSON 2,864,070

ELECTRIC SOCKET AND SUPPORT HOLDER FOR PORTABLE DISPLAY LIGHTING OUTFITS

Filed May 23, 1955

Fig. 1.

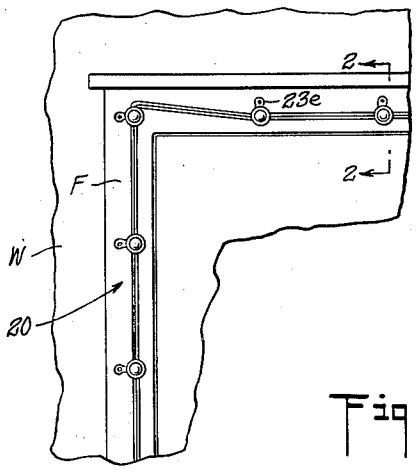


Fig. 2.

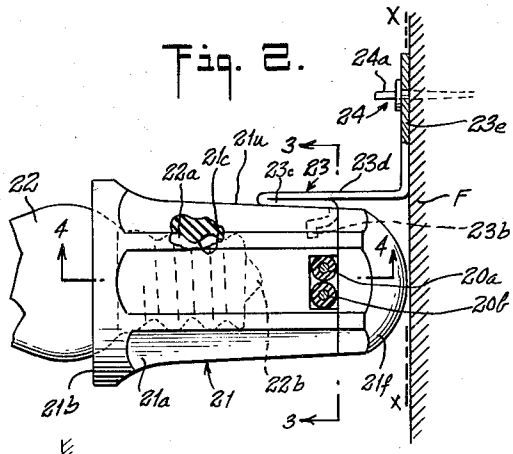


Fig 11.

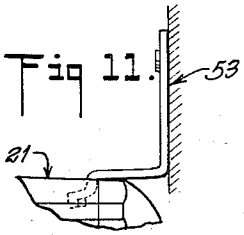


Fig. 3.

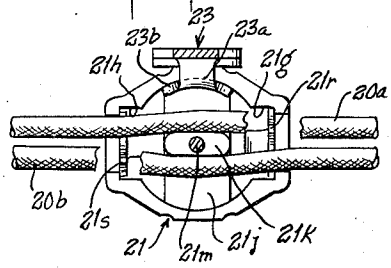


Fig. 4.

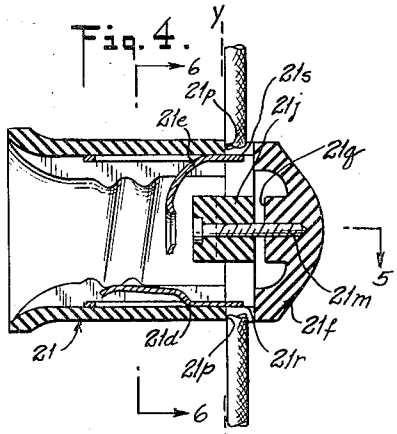


Fig. 5.

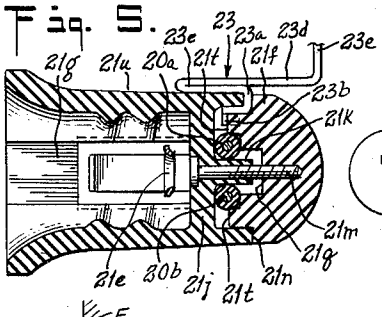


Fig. 6.

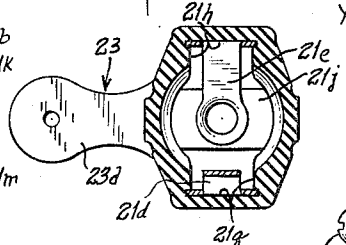


Fig. 9.

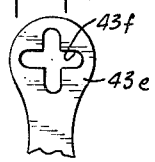


Fig. 10.

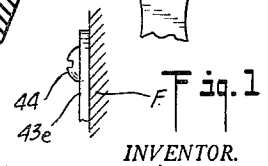


Fig. 7.

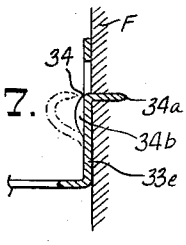
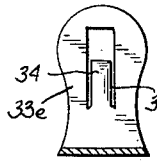


Fig. 8.



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ELECTRIC SOCKET AND SUPPORT HOLDER FOR PORTABLE DISPLAY LIGHTING OUTFITS

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Application May 23, 1955, Serial No. 510,436

6 Claims. (Cl. 339—99)

This invention relates to portable electric lighting outfits such as used in decorative displays, for Christmas trees, for stringing about door and window trim, and for other ornamental illumination purposes. More particularly, the invention is directed to improvements in electric light sockets and mounting means therefor which comprise such portable electric lighting outfits whereby removable attachment in position on fixed supports may be readily accomplished.

Among the objects of the invention is the general improvement of electrical equipment of the character described in which simplified constructions of few and easily assembled parts are provided, which shall be economical to manufacture especially in quantity production, which shall be readily installed, positioned, adjusted and removed without requiring skilled labor and with minimum defacement to the finish of the supporting structure, and which shall be practical and efficient to a high degree in use.

Other objects of the invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists of features of construction, combinations of elements and arrangements of parts which will be exemplified in the constructions hereinafter disclosed, the scope of the application of which will be indicated in the claims following.

In the accompanying drawing in which various illustrative embodiments of the invention are shown:

Fig. 1 is a fragmentary front elevational view of a building wall portion formed with a window or a doorway frame having removably mounted in an outlining position a portable decorative electrically lighted outfit constructed to embody the invention.

Fig. 2 is an enlarged view of one of the lamp sockets and support holder as seen from line 2—2 in Fig. 1 with portions broken away to show the screw base connection.

Figs. 3 and 4 are views partly in cross section taken on lines 3—3 and 4—4 in Fig. 2, respectively, showing details of the assembly construction of the body of the socket and the support holder.

Figs. 5 and 6 are cross-sectional views taken through the lamp socket on lines 5—5 and 6—6 in Fig. 4, respectively, showing further details of said assembly construction.

Figs. 7 and 8 are fragmentary side and front elevational views, respectively, of a modified form of base portion of the support holder having integral fastening means for removably securing the support holder to a supporting structure, Fig. 7 being partly broken away and showing in dot and dash lines the position of an integral fastener prong before being driven into securing position shown in full lines.

Figs. 9 and 10 are fragmentary front and side elevational views, respectively, of another modified form of base portion of the support holder adapted to use a headed screw as the fastener means, and

Fig. 11 is a fragmentary view of a socket fitted with a support holder similar to the improved form shown in Figs. 1 to 6, but of somewhat simpler construction.

Referring in detail to the drawing, **20** denotes a portable decorative electrically lighted outfit, removably mounted in an outlining position on a window or doorway frame F of a portion of a building wall W constructed to embody the invention, as for example, as shown in Fig. 1.

Each lamp socket **21** of said outfit **20**, except as to the improvements herein described and claimed, may be of any well known construction and, as here shown, is provided with a molded insulating husk or body portion **21***a* forming a casing with a flared open end **21***b* and integral interior screw threads **21***c*. Said husk interior construction may have inserted circuit making spring side contact member **21***d* extending through the molded screw thread **21***c* for connecting the screw threaded portion of base **22***a* of an incandescent lamp **22** which is replaceably mounted in said socket **21** and also for connecting with a spring end center contact member **21***e* with the screw base center contact **22***b* in the well understood manner and as is clear from Figs. 2 to 6.

Said husk **21***a* may be provided with a molded insulating end closure cap **21***f* which when attached in position by suitable fastener means grips a pair of lead wires **20***a* and **20***b* to secure same and to electrically furnish power for lighting incandescent lamp **22** through said contact members **21***d* and **21***e*.

Casing or husk **21***a*, besides having the flared open end **21***b*, is provided with spaced apart oppositely positioned support retention grooves or slideways **21***g* and **21***h* in which the spring side contact and center contact members **21***d* and **21***e*, respectively, each have edge portions slidingly inserted into effective operating position in said grooves **21***g* and **21***h* from the underside of a bracing rib **21***j*, the latter being integrally formed to extend across and inwardly of the end of the casing **21***a* opposite said flared open end **21***b*, as is clear from Figs. 3 to 6.

Said bracing rib **21***j* may have a down-projecting boss **21***k* and be provided with a through-bored passage for neatly accommodating a pin nail or screw **21***m* inserted therein and extending into the cap **21***f* to serve as said fastener means for securing said cap **21***f* in assembled position to the husk **21***a*, as shown in Figs. 4 and 5. Since bracing rib **21***j* is set back from a lower rim **21***n* of the husk **21***a* opposite said open flared end **21***b* and the lower rim **21***n* is cut away as at **21***p*, a through open passageway is provided through which lead wires **20***a* and **20***b* extend so as to be located in a proper position to be tapped by solderless connections, that is, as is clear from Figs. 3 and 4, by insulation piercing ends or prongs **21***r* and **21***s* projecting from the side contact and center contact members **21***d* and **21***e*, respectively.

It is to be noted that a portion of inner surface **21***q* of cap **21***f* is recessed to clear the boss **21***k* while the adjoining surface **21***t* is located to extend into the husk **21***a* beyond lower rim **21***n* and is shaped to form a backing support to counteract pressure forces exerted during the assembly fastening operation of cap **21***f* to the husk **21***a* while simultaneously circuit tapping the prongs **21***r* and **21***s* to pierce the insulation covered lead wires **20***a* and **20***b*, as is clear from Figs. 4 and 5.

As one feature of the invention, there is incorporated in the improved construction of socket **21** a fitting or support holder **23** whereby decorative lighting outfits **20** of the character described can be readily attached, adjusted and removed to fixed supports without requiring skilled labor and with a minimum defacement of finished surfaces of such supports.

In the form shown in Figs. 1 to 3 and 5, support holder **23** may be made of a strip of sheet metal having a hook end **23***a* terminated by a spread wing finial or fitment **23***b*. Said hook end **23***a* may be formed to firmly engage about said husk lower rim **21***n* which is notched to receive the same for locating the fitment **23***b* to bear on portion of said surface **21***t* so that support holder **23** is tightly clamped between the husk **21***a* and cap **21***f* when secured together in place by fastener means **21***m*. A mid-portion **23***c* forms a continuation of hook end **23***a* to the left as seen in Figs. 2 and 5 extending part way along exterior side **21***u* of husk **21***a* and may then be folded over to extend to the right as at **23***d* a distance so that the angularly disposed hanger end **23***e* lies in a plane tangent to the contour of the cap **21***f*, that is, as is clear from Fig. 2, the plane X—X of the supporting window or door frame F.

Hanger end **23***e* may be pierced centrally to receive a nail **24** which firmly secures the socket **21** in position on frame F, said nail **24** being provided with an extension head **24***a* to facilitate withdrawal of the nail **24** for dismounting the outfit **20** with practically no defacement of the finished surface of frame F.

The practical application and utility of the invention will now be apparent.

After constructing the parts as above described and shown in Figs. 1 to 6, the casing or husk **21***a* is assembled with the component spring side and center contact members **21***d* and **21***e* inserted into and supported for retention by slideways **21***g* and **21***h*, respectively, and with the nail **24** extending through bracing rib **21***j* and boss **21***k*. The cap **21***f* is then forced into clamping position to be firmly retained by nail **24** with lead wires **20***a* and **20***b* pierced by current tapping prongs **21***r* and **21***s*, respectively, and the support holder fitment **23***b* rigidly held between the husk **21***a* and cap **21***f* to complete the assembly of socket **21** with wires **20***a* and **20***b*. A plurality or string of sockets **21** may be assembled at spaced distances along wires **20***a* and **20***b* which may be terminated by suitable electric power circuit tapping means such as a conventional plug in the well understood manner to make a complete portable outfit **20**. Sockets **21** may then be removably attached at spaced apart distances on frame F, as is clear from Fig. 1. The nailed mounting of hanger end **23***e* and the bearing of cap **21***f* on the surface of frame F provides a sturdy support for the outfit **20**.

In Figs. 7 and 8, a modified form of angularly disposed hanger end **33***e* is shown to replace the requirement of nail **24**. This may be accomplished by cutting or punching and bending a sharp pointed tongue **34** in the upraised form shown in dot and dash lines in Fig. 7, then for removably attaching the socket, not shown, to frame F, piercing pointed end **34***a* of tongue **34** is driven into the frame, as is clear from the full line position of tongue **34** shown in Figs. 7 and 8. The tongue **34** may be provided with an upstanding edge, lip or ledge **34***b* to facilitate retraction of the bent tongue by a prying instrument from said full line position to said dot and dash line position to dismount said socket without marring the finished surface of frame F.

In Figs. 9 and 10, another modified form of angularly disposed hanger end **43***e* is shown as a substitute for the nail mounting construction described above for use with hanger end **23***e*. Said hanger end **43***e* may be punched with one or several overlapping keyhole shaped slots **43***f* as for example, as here shown disposed in cross formation. By providing either a headed nail or screw **44** permanently or temporarily driven into frame F with the head projecting beyond the surface of frame F, the socket, not shown, may be hung and secured in various angular relations therefrom by forming a bayonet type of joint, as is clear from Fig. 10.

Where a relatively cheaper and simpler construction than support holder **23** is desired, modified form of support holder **53** shown in Fig. 11 may be provided. To this end, midportion **23***c* of support holder **23** with the folded over section **23***d* thereof are eliminated so that support holder **53** forms a Z-shaped structure. It is to be understood that such Z-shaped structure may also include either the angularly disposed hanger end **33***e* or **43***e* described above.

It is thus seen that there is provided improved electric socket and support holder constructions whereby the several objects of this invention are achieved and which are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matters herein set forth or shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. An electric light socket of portable lighting outfits constructed with a support holder for removably attaching to a support comprising a husk having an open end forming a casing for lamp current carrying contacts thereof into which opening a lamp base is inserted to connect with said contacts, said husk having a bottom end opposite said open end formed with a rim edge and a bracing rib extending within the husk adjacent said rim edge, a cap secured as a closure over said bottom end forming a joint thereat with a side-to-side through-passageway, insulation covered lead wires extending through said passageway, said lamp contacts provided with current carrying insulation piercing prongs extending into said lead wires for making a solderless tapped electric connection therewith, said support holder having a fitment end anchored in said socket at said closure joint between said husk rim edge and the cap, the other end of said holder being provided with a surface attachment means, and fastener means retaining said closure joint and rigidly clamping said fitment end between the husk and cap.

2. The electric light socket of portable lighting outfits constructed with a support holder defined in claim 1 in which a portion of the support holder between the ends thereof is an angle L-shaped structure.

3. The electric light socket of portable lighting outfits constructed with a support holder defined in claim 1 in which the support holder is substantially a Z-shaped structure.

4. The electric light socket of portable lighting outfits constructed with a support holder defined in claim 1 in which said fitment end terminates in spread wings to provide a portion of said anchorage.

5. A construction of the character described comprising a two-part electric light socket having an intermediate joint region and forming a casing for lamp current carrying contacts thereof, said joint region having a passageway wherethrough insulation covered lead wires extend, insulation piercing prongs provided to extend from said lamp contacts extending into said lead wires for making a solderless tapped electric connecting therewith, a support holder having a fitment end clamp anchored between said two parts in said joint region spaced from the passageway, the other end of said holder being provided with a surface attachment means disposed in a plane spaced from that of said joint and in alignment with an extreme exterior cap surface of the socket, and fastener means retaining said two parts together and rigidly clamping said fitment end therebetween.

6. In a portable lighting outfit having electric light sockets each socket formed of two parts having an intermediate joint region, a support holder of substantially over-all L-shaped configuration having a fitment end disposed in one plane and terminating in spread wings to provide an anchorage in said joint region and having a

hook for looping over an edge rim of said joint region adjoining said fitment end, the other end of said holder being provided with a surface attachment means disposed in a plane spaced from said fitment end plane, a mid-bracing section of said holder extending beyond the plane of said fitment end and along one of the socket parts in a direction opposite with respect to the plane of said surface attachment means.

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