Sept. 19, 1939. G. B. BENANDER ET AL 2,173,705

ELECTRIC FIXTURE

Original Filed Jan. 14, 1936

Fig. 4.

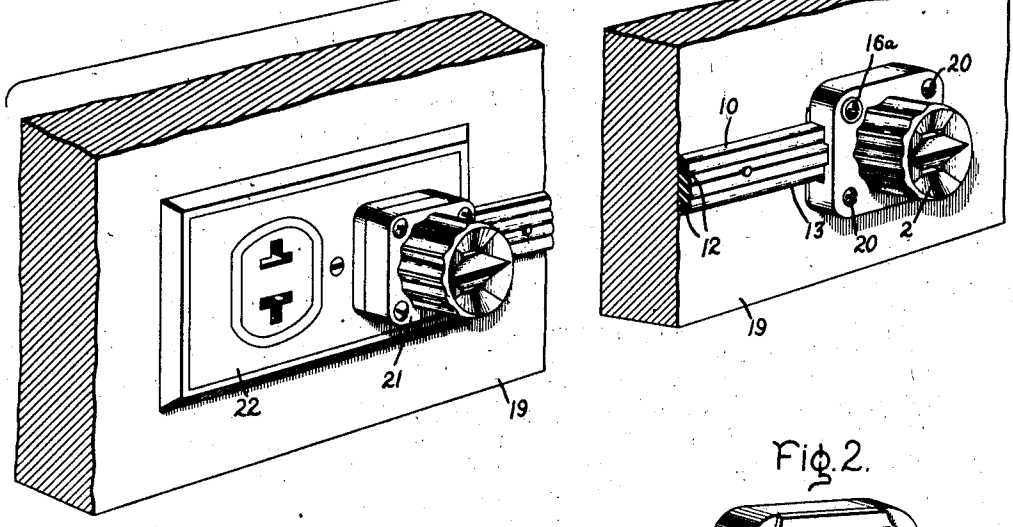


Fig. 2.

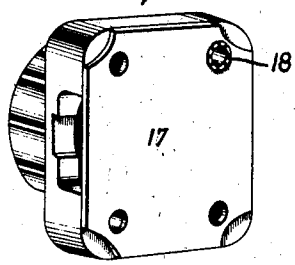


Fig. 1.

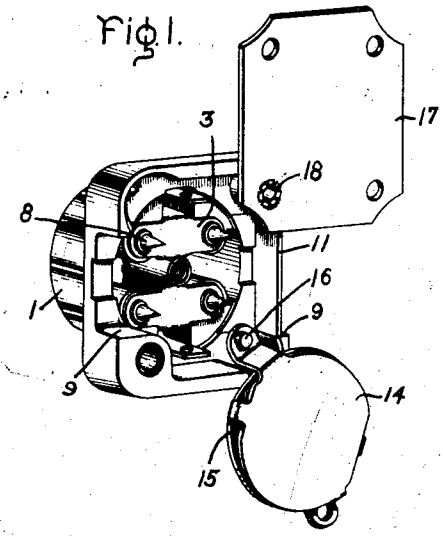
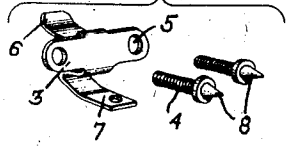


Fig. 3.



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ELECTRIC FIXTURE

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Original application January 14, 1936, Serial No. 59,074. Divided and this application August 30, 1938, Serial No. 227,516

2 Claims. (Cl. 173—340)

The present invention relates to electric fixtures for use with cable of the type having a pair of longitudinal conductors arranged side by side and held in spaced relation.

This application is a division of our copending application Serial No. 59,074 filed January 14, 1936. The object of our invention is to provide an improved construction and arrangement in fixtures of this type, and for a consideration of what we believe to be novel and our invention attention is directed to the following description and the claims appended thereto.

In the accompanying drawing, Fig. 1 is a perspective view of a receptacle embodying our invention, the receptacle being shown in the open position ready for the insertion of a cable; Fig. 2 is a perspective view of the receptacle showing the parts in the closed position; Fig. 3 is an exploded view of the contacts used in the receptacle and the screws for securing the contacts therein; and Fig. 4 is a perspective view of an installation using the receptacle illustrated.

Referring to the drawing, the receptacle illustrated in Figs. 1 and 3 inclusive, comprises a base 1 of molded insulating material provided with blade receiving openings 2 in its top and being open at its bottom. In line with the blade receiving openings 2 are contacts 3 which are secured to the base by means of drive screws 4 which extend through openings 5 in the contacts. The blade contacting portions of the terminals comprise a resilient arm 6 and a V-shaped arm 7. The shape of the base below the openings 2 is such that the arms 6 and 7 are pressed together so that good contact is made with the blade inserted through the openings. The drive screws 4 are provided with pointed heads 8.

In opposite side walls of the base are notches 9 which are of substantially the same configuration as the cable 10 which is to be connected to the receptacle. One of the notches 9 is closed by a frangible wall 11 which may be broken if the cable is to extend through the receptacle.

The cable 10 comprises two longitudinal conductors 12 which are embedded in a flat strip 13 of insulating material such as rubber. The spacing of the conductors 12 is such that when the cable is inserted in the notches 9, the pointed heads 8 of the screws connected to each of the contacts 3 rest directly above one of the conductors 12 of the cable. The points 8 are forced through the rubber strip 13 into the conductors by a plate 14 which carries a disk 15 of insulating material on the side facing the points 8. The plate 14 is threaded to a screw 16, the projecting end of which is peened over so that the plate cannot be removed. With this arrangement, the plate can be pivoted about the screw 16 to the position shown in Fig. 1 so that the cable can be inserted into the notches 9. After the cable is inserted, the plate 14 is swung over the cable and the screw 16 and another screw 16a, in the diagonally opposite corner of the base, are threaded into the plate, thereby clamping the plate to the base and forcing the points 8 into the conductors 12 of the cable. This construction makes it possible to install a number of receptacles on the cable before the cable is attached to the wall. Moreover, the receptacles are connected directly to the cable by screwing together of the cover plate 14 and the base 1 and the effectiveness of this connection is not dependent upon the manner in which the receptacle is mounted upon the wall. Each of the contacts is provided with two fastening screws 4 so that when the plate is clamped in place, the connection is made between each of the contacts 3 and one of the conductors 12 of the cable through two of the pointed heads 8.

The bottom of the receptacle is closed by a metal plate 17 which is pivotally fastened to the base by means of an eyelet 18. The receptacle is mounted, for example, on a baseboard 19 by means of screws 20 passing through the eyelet 18 and through the diagonally opposite corner of the base. It should be noted that it is impossible to swing the back plate into position closing the bottom of the receptacle unless the cover plate 14 has first been swung into position overlying the cable and tightened down thereon. This makes it necessary for the cable to be connected securely to the receptacle by engaging the contact points 8 before the back plate is set in position and the receptacle mounted upon the baseboard. The screws 20 are used only to mount the receptacle upon the baseboard whereas the screws 16 and 16a lock the cover plate 14 in position and tighten it down upon the cable to secure a good electrical connection between the electrical conductors and the contact points 8.

Fig. 4 shows an installation of the receptacle illustrated in Figs. 1 to 3 inclusive. In this installation, the cable is connected at one end to a plug receptacle 21 the details of which are shown in our copending application Serial No. 59,074. This receptacle is plugged into an outlet 22. The cable is nailed at suitable points to a baseboard and at the other end is connected to the receptacle shown in Figs. 1 to 3, inclusive, which is fixed to the baseboard by means of the screws 20. By this arrangement, a wiring extension to existing

installations can be made quickly and easily without the necessity of stripping cable and without damaging or mutilating the walls of the building in which the extension is being made. The cable is clamped securely within the receptacle by means other than that with which the receptacle is mounted on the wall so that even though the cable and receptacle are struck and loosened from the wall the electrical connection between the two is not thereby impaired.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. An electric fixture for use with a cable having spaced longitudinal conductors comprising a base having an opening in one side thereof, contacts carried by said base, means for securing said contacts to the base including drive pins having pointed ends, a plate pivoted to the base and movable away from the base to permit insertion of the cable in the base, means for clamping the plate to the base whereby said cable is clamped between the plate and said contact pins with said pointed ends engaging the conductors of said cable and a back plate pivotally mounted on said base for closing said opening.

2. An electric fixture for use with a cable having a pair of longitudinal insulated conductors arranged side by side, comprising a base having an opening in one side thereof, connector means carried by said base within said opening, means for securing said connector means to the base including pins having pointed ends, a securing plate pivotally mounted on said base and being movable away from the base to permit insertion of the cable in said opening, means clamping the plate to the base within said opening whereby the cable is clamped between the plate and the pins with said pointed ends piercing the insulation of the cable and engaging the conductors to connect them electrically to said connector means, a back plate pivotally mounted on said base for closing said opening, and means securing the back plate to said base.

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