Jan. 8, 1935. G. T. TIDEMAN 1,987,035

CONNECTER FOR ELECTRIC OUTLET BOXES

Filed July 25, 1931

FIG. 1.

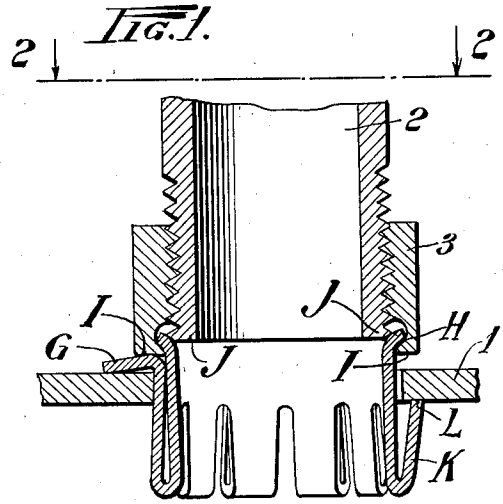


FIG. 5.

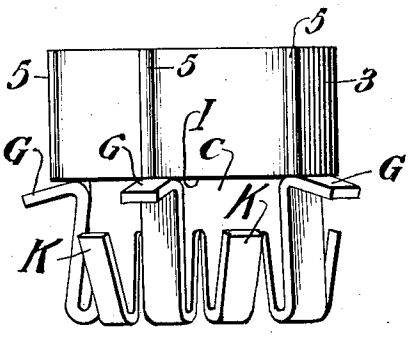


FIG. 2.

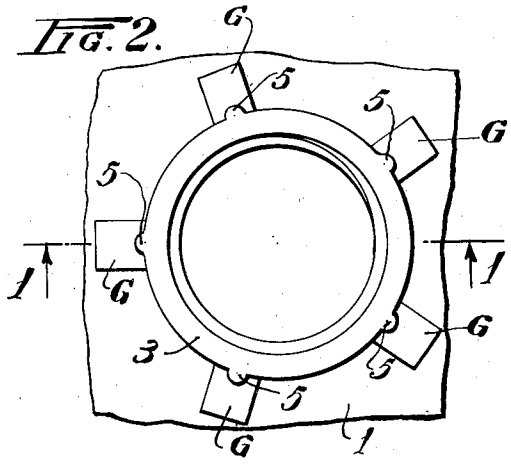


FIG. 4.

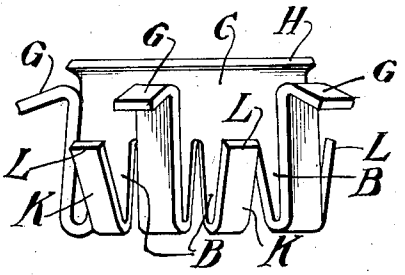
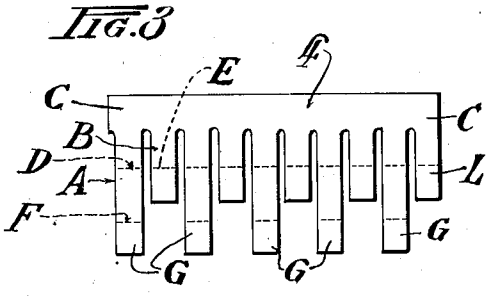


FIG. 3



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CONNECTER FOR ELECTRIC OUTLET BOXES

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Application July 25, 1931, Serial No. 553,164

3 Claims. (Cl. 247—25)

This invention relates to connecters for electric conductors for attaching electric conductor conduits to the top or horizontal member of an electric outlet box.

Among the objects of the invention is to obtain connecters by means of which conduits enclosing electric conductors, may be easily attached to the top or horizontal member of an electric outlet box. An additional object is to obtain connecters of the kind named which may be inserted into an aperture in the top or horizontal member of an electric outlet box and will be automatically rigidly held in place in said aperture without the possibility of a break in the continuity or conductivity of the electric conduit system. An additional object is to obtain connecters of the kind named and for the purpose set forth which have no detachable elements or members thereto, and which is readily attached to an electric conduit by one skilled in the art.

In the drawing referred to Fig. 1 is a vertical section of a portion of the top or horizontal member of an electric outlet box, of the lower end of an electric conduit and of a construction embodying this invention, by means of which said conduit and top of said outlet box are rigidly joined, taken on line 1—1 of Fig. 2, viewed in the direction indicated by arrows. Fig. 2 is a plan view on broken line 2—2 of Fig. 1, viewed in the direction indicated by arrows. Fig. 3 is a top plan view of a strip or ribbon of resilient material, as spring steel, provided with a plurality of tongues integral therewith, from which one of the members illustrated in Figs. 1 and 2 is obtained. Fig. 4 is a side elevation of the member which is obtained from the strip or ribbon illustrated in Fig. 3. And Fig. 5 is a side elevation of the member illustrated in Fig. 4 in proper relation to the internally screw threaded member fitting over and engaging with corresponding screw threaded ends of an electric conduit and joining said member which is illustrated in Fig. 4 to the screw threaded end of an electric conduit.

A reference character applied to designate a given part indicates said part throughout the several figures of the drawing, wherever the same appears.

1 represents a portion of the horizontal member or base of an electric outlet box. 2 represents the end of a conduit for electric conductors, and 3 represents an internally screw threaded member which fits over and engages with the screw threaded end of conduit 2, as is well illustrated in Fig. 1. 4, Fig. 3, represents a strip or ribbon of resilient material, which is provided with a plurality of tongues A, B, which are integral with part C of said strip or ribbon. The part C of said strip or ribbon 3 is forced into cylindrical form. Before said portion C of member 4 is formed into cylindrical shape, the tongues A and B, respectively, are bent or folded substantially on broken lines D and E (see Fig. 3), into substantially the shape illustrated in Figs. 4 and 5, and the tongues A are additionally bent or folded substantially on broken lines F (Fig. 3) to obtain the elements or ends G, Figs. 1, 2, 4 and 5. The upper end or edge of part C of the cylindrical portion of member 4 is turned or flared outward, as at H, Figs. 1 and 4. The member 3 is preferably made of malleable iron, (but may be made of soft brass), and after member 4 is formed up into substantially the shape illustrated in Fig. 4, the lower end of said member 3 is forced in underneath the curved end or edge H of member 4, as at I, to hold said member 4 in determined position relative to said member 3. And when said member 3 is mounted on the screw threaded end of conduit 2, as is illustrated in Fig. 1, the lower end, J, of said conduit is forced against the upper inner edge of the cylindrical portion C of member 4.

When the tongues B are bent or folded substantially on broken lines D I obtain the upward and outwardly extending elements K, Figs. 1, 4 and 5, having the ends L, which ends, when the connecter is inserted through an aperture in the wall of an outlet box, abut against one face of the horizontal member of said outlet box.

When said member 4 is inserted, by means of the cylindrical portion C thereof, into the lower end of member 3, with said lower end turned underneath the curved or outwardly flaring edge H, and said member 3 is mounted, as is illustrated in Fig. 1, on the lower end of conduit 2, the member 4 is rigidly held in determined position relative to conduit 2 and member 3.

5, Figs. 2 and 5, represent the ordinary flutings on the periphery of member 3.

The installation of the connecter in an outlet box is as follows: When member 4 is forced into and partially through an aperture in the wall of the outlet box, the tongues B extend through said aperture and the resilience of said tongues, while permitting said tongues to be forced back during said insertion, as soon as said tongues are completely through said aperture said resilience forces the part K of said tongues outward, so that the ends L thereof abut against one face of the wall of the outlet box; and the elements G, of tongues A are at such time under tension, and when the pressure or force which forces

member 4 into said position in said aperture is released, the resilience of tongues A forces the ends of elements G against the face of the wall of the outlet box, and brings the ends L of elements K of tongues B into close contact with the face of the wall of the outlet box against which said ends abut.

The resilience of tongues A and element G thereof, as last above recited, permits the variation in thickness in the wall of the outlet box which in practice occurs, to be taken care of in such manner that notwithstanding said difference in thickness the connecter can be inserted as described, through apertures in the wall of the outlet box, and there will be no rattling of the connecter, when so inserted.

I claim:

1. A cylindrical member the upper edge thereof extending outwardly, and said cylindrical member provided with tongues of resilient material extending downwardly, said tongues bent to obtain upwardly extending elements, and a plurality of said tongues additionally bent to obtain outwardly and downwardly extending elements, in combination with an internally screw threaded member, the lower edge thereof extending inwardly to co-act with said outwardly extendng upper end of said cylindrical member to join said cylindrical member and said screw threaded member.

2. In a connecter, a cylindrical member provided with a plurality of tongues of resilient material and of a determined length integral therewith, said tongues folded to obtain upward and outward extending elements, and an additional plurality of tongues of a determined length integral therewith, said additional plurality of tongues folded to obtain upwardly extending elements and bent to obtain outwardly and downwardly extending ends, in combination with means to join said cylindrical member to the end of a conduit.

3. In a connecter, a cylindrical member provided with a plurality of tongues of resilient material extending downward and folded to extend upward and outward, and an additional plurality of tongues of resilient material extending downward and folded to extend upward and with the upper ends thereof extending outward and downward, in combination with an additional member connected to said cylindrical member and provided with means to join said members to an electric conduit.

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