Feb. 12, 1924. 1,483,453

H. G. KNODERER

OUTLET BOX

Filed Dec. 18, 1922

Fig. 1.

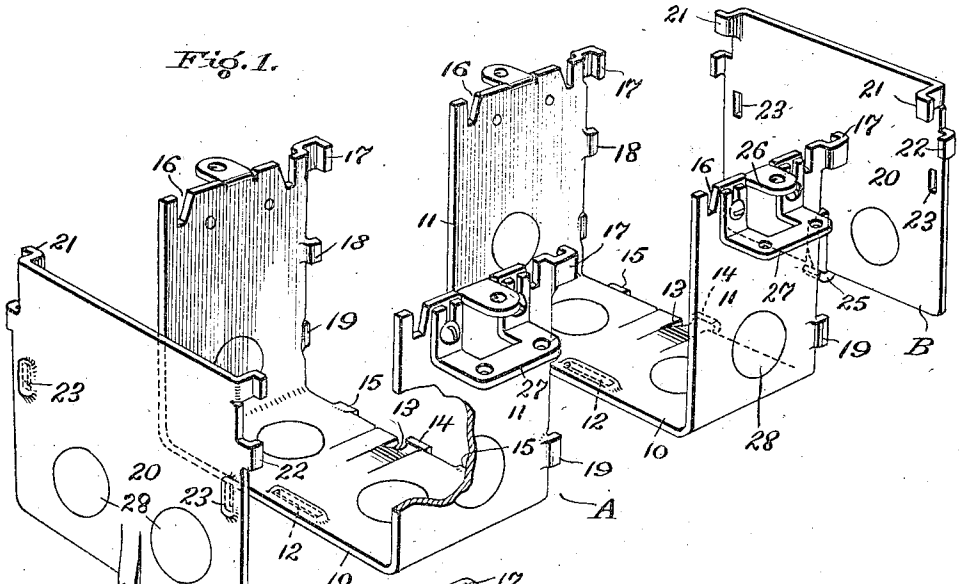


Fig. 2.

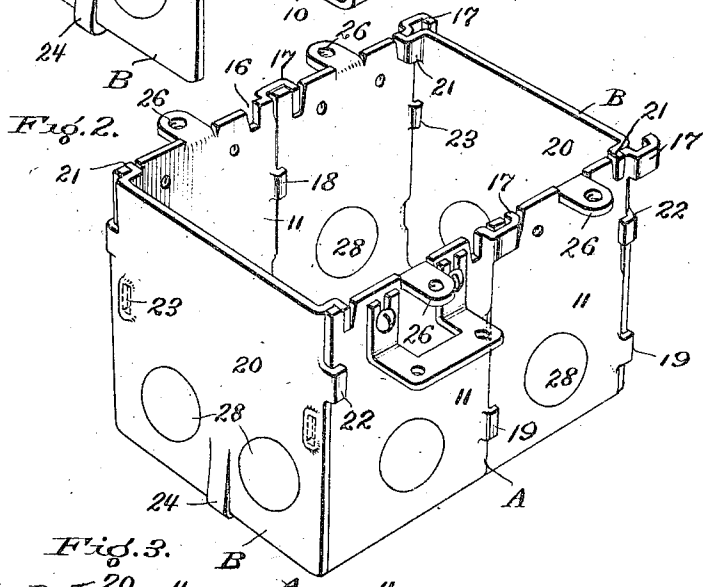


Fig. 3.

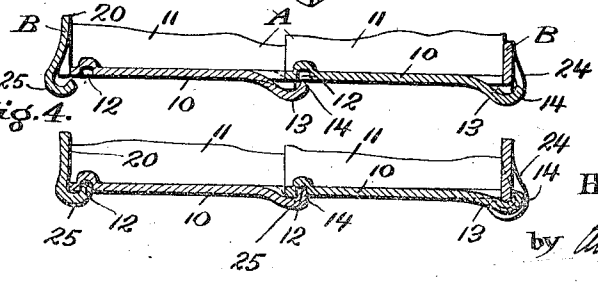


Fig. 4.

Inventor
Homer G. Knoderer,
by Alexander S. Lunt
His Attorney,

Patented Feb. 12, 1924. 1,483,453

UNITED STATES PATENT OFFICE.

HOMER G. KNODERER, OF ENGLEWOOD, NEW JERSEY, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

OUTLET BOX.

Application filed December 18, 1922. Serial No. 607,497.

To all whom it may concern:

Be it known that I, HOMER G. KNODERER, a citizen of the United States, residing at Englewood, county of Bergen, State of New Jersey, have invented certain new and useful Improvements in Outlet Boxes, of which the following is a specification.

The present invention relates to outlet boxes such as are used for house wiring and particularly to that class of boxes commonly known as gang boxes which comprise a plurality of box elements which may be fastened together to form a box structure having any suitable number of sections for receiving switches or the like.

One object of my invention is to provide an improved gang box structure which can be built up to any desired length from but two different parts or elements, viz. a body member and an end plate. By this arrangement the manufacturer is required to make elements of only two different types and the dealer is required to carry in stock elements of only two different types.

A further object of my invention is to provide an improved outlet box in which the parts are easily fastened together without the use of screws or any special tools.

For a consideration of what I believe to be novel and my invention, attention is directed to the accompanying description and the claims appended thereto.

In the drawing, Fig. 1 is an exploded view of an outlet box embodying my invention; Fig. 2 is a perspective view of an assembled box, and Figs. 3 and 4 are detail sectional views.

Boxes embodying my invention are constructed from elements of two types, body elements A and end elements B. The body element comprises a bottom 10 and two side walls 11. At one edge bottom 10 is provided with a centrally located recess 12 which may be in the form of either a struck-up indentation or a hole (preferably the former), the recess being spaced from the edge a distance equal to the thickness of the box material. The other edge is provided with a tongue 13 having an upwardly facing hook 14. Tongue 13 is in part sheared from the bottom wall and hook 14 projects beyond the edge of the bottom wall a distance equal to the thickness of the box material. On this latter edge of the bottom wall are also two outwardly projecting lugs 15 which are struck down a distance equal to the thickness of the box material. Side walls 11 are provided at their upper corners with recesses or slots 16 and on one edge with hooks 17 and lugs 18 and 19, lugs 18 being struck in and lugs 19 being struck out so as to adapt them to receive the edge of a body section between them.

Each end element B comprises a rectangular plate 20 provided with hooks 21 at its upper corners and forwardly projecting lugs 22 on its side edges. The side edges are provided also with recesses 23 which may be in the form of holes or struck-out indentations. The lower edge is provided at its central portion with a tongue 24 having a hook 25 at its free end, the tongue being initially struck out so that the hook lies outside the inner surface of the plate as shown in Fig. 3.

The box is shown as being provided with usual types of attaching ears 26, supporting plates 27 and knockouts 28.

To build up a box comprising either one or a plurality of units requires two end members B and as many body members A as the box is to have sections. In Fig. 2 a box comprising two sections is shown. In constructing a box the members may be joined in any desired order. The left-hand end member is attached to a body member by inserting hooks 21 in notches 16 while the members are held at an angle to each other and then bringing them together by a turning movement. This brings hooks 21 tight up against the edges of notches 16 as shown in Fig. 2 and tongue 24 to the position shown in Fig. 3. Tongue 24 is then struck inward and then upward as shown in Fig. 4 to bring hooks 25 into recess 12. The end is thus firmly attached to the body member. Lugs 22 embrace the outer surfaces of the sides of the body member to hold them from bulging outwardly and the side surfaces of hooks 21 engage the inner surfaces of the sides of the body member to hold them from bulging inwardly. This arrangement holds the end member and body member rigidly against relative movement in any direction.

Two body members are connected by inserting hooks 17 into notches 16 while the body members are held at an angle to each other and then bringing them together by a turning movement in exactly the same

manner in which an end member is attached to a body member. This brings hooks 17 tight up against the edges of slots 16 as shown in Fig. 2 and tongue 13 to the position shown in Fig. 3. Tongue 13 is then struck to bring hook 14 into recess 12. This fastens the body members together. Lugs 18 and 19 embrace the sides of the body member on opposite surfaces to hold them from bulging in either direction, thus insuring that the side walls of successive body members stand in alignment. Lugs 15 project under the bottom wall of the adjacent body member to support it and keep the bottoms in alignment.

The right-hand end member is fastened in position in the same way as the left-hand member except that instead of being held by hook 25 it is held by hook 14 which is bent up to engage the outside of the end member as shown in Fig. 4. When the right-hand end member is put in place lugs 19 embrace the side edges of the end member, lugs 15 engage under the bottom edge, and lugs 18 enter recesses 23. In this connection it will be noted that hooks 25 are positioned so as to be out of line with hooks 14.

By the above described arrangement I provide a gang outlet box which can be quickly assembled from elements or members of but two types without the use of screws or special tools and which when assembled is firmly and positively locked together with the walls held in accurate alignment. In connection with the body members it will be noted that one edge is smooth, all the projections being formed on the other edge. By forming all projections on one edge I effect the greatest economy in material, keeping the amount of waste material a minimum.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only illustrative, and that the invention may be carried out by other means.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. A gang outlet box comprising end members which are alike in structure, and body members which are alike in structure, said end members having hooks at their upper corners and said body member having notches at its upper corners at both ends and hooks on its upper corners at one end, the hooks on both the end members and the body members being adapted to engage the notches in the body members, and means for fastening the end members and body members together at their lower edges.

2. A gang outlet box comprising end members which are alike in structure, and body members which are alike in structure, said end members having hooks at their upper corners and said body member having notches at its upper corners at both ends and hooks on its upper corners at one end, the hooks on both the end members and the body members being adapted to engage the notches in the body members, and tongues and recesses for fastening the members together at their lower edges, said tongues standing normally out of fastening position and adapted to be bent to fastening position.

3. A gang outlet box comprising end members which are alike in structure, and body members which are alike in structure, said end members having hooks at their upper corners and said body member having notches at its upper corners at both ends and hooks on its upper corners at one end, the hooks on both the end members and the body members being adapted to engage the notches in the body members, means for fastening the end members and body members together at their lower edges, and projecting lugs for holding the members in alignment.

In witness whereof, I have hereunto set my hand.

HOMER G. KNODERER.