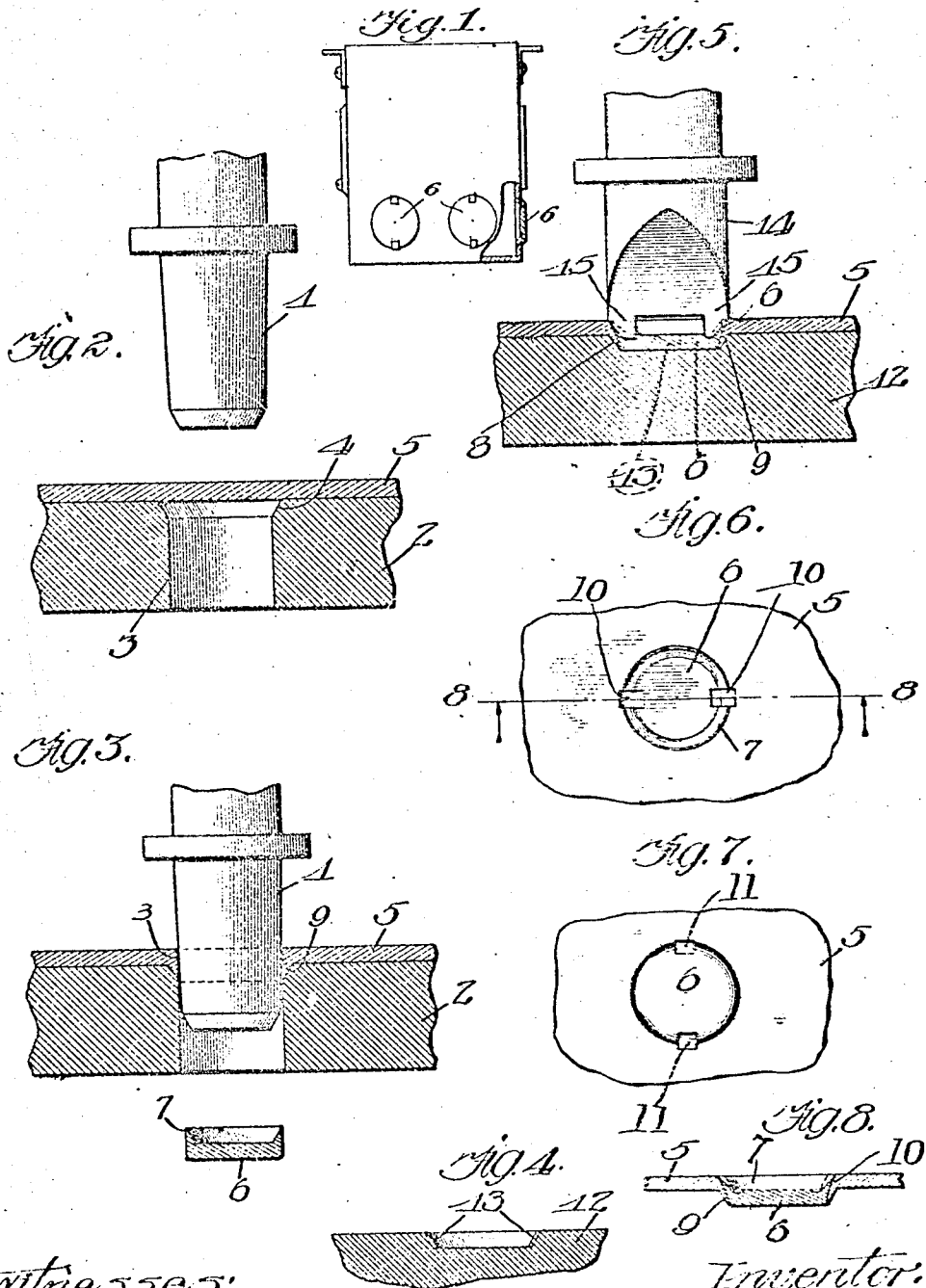


No. 895,441.

PATENTED AUG. 11, 1908.

C. J. DORFF.
ELECTRIC OUTLET BOX.
APPLICATION FILED JUNE 22, 1907.



Witnesses:

Robert H. Miller

Robert H. Miller

Inventor:

Conrad J. Dorff

By *Luther L. Miller*
Att.

UNITED STATES PATENT OFFICE.

CONRAD J. DORFF, OF CHICAGO, ILLINOIS, ASSIGNOR TO FREDERIC GREER, OF CHICAGO, ILLINOIS.

ELECTRIC OUTLET-BOX.

No. 895,441.

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed June 22, 1907. Serial No. 380,190.

To all whom it may concern:

Be it known that I, CONRAD J. DORFF, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Outlet-Boxes, of which the following is a specification.

The object of this invention is the production of an improved means for closing openings, such as the conduit-receiving openings of electric outlet boxes.

In the accompanying drawings, Figure 1 is a side elevation of an outlet box embodying the features of my invention. Figs. 2 to 5, inclusive, illustrate various steps in the manufacture of an outlet box embodying the features of my invention. Figs. 6 and 7 are views from opposite sides of a section of outlet-box wall having therein an opening closed in accordance with this invention. Fig. 8 is a sectional view on dotted line 8-8 of Fig. 6.

In forming openings in the metal of which the box or other article is built, I employ a punch 1 and a die 2, said die having an opening 3 therein, the upper end of the walls surrounding said opening being beveled, as indicated at 4. The punch 1 is made tapering, being larger at its upper end than at its lower, whereby the opening formed by the punch will be enlarged after a plug has been punched from the blank. When the punch 1 is driven through a blank 5 lying over the opening 3 in the die 2 a slug 6 having an annular flange or fin 7 thereon will be punched from the blank, and an opening 8 formed in said blank. The portions of the metal lying over the beveled surface 4 of the die 2 are carried downward with the punch into contact with said beveled surface, thus forming a flange or fin 9 upon the edge of the under side of the blank immediately surrounding the opening 8.

To close the opening 8 until such time as it is to be used, I place the slug 6 therein, and in order to secure the slug in its opening, portions 10 of the fin 7 upon said slug are forced into the wall of the opening 8, and, similarly, portions 11 at suitable points upon the fin 9 are sunk into the edge of the slug, by any suitable means, as, for example, the tools shown in Fig. 5. At the four points where the wall and the slug are thus con-

nected said parts are practically cold-welded together. The die 12 illustrated in said figures has a seat therein for the slug 6 and the fin 9, two teeth 13 projecting into said seat from the side walls thereof at diametrically opposite points. The punch 14 has two studs 15 thereon. When the punch 14 descends, the studs 15 indent the fin 7, forcing portions thereof into the wall of the opening 8. At the same time the fin 9 is indented by the teeth 13 and portions of said fin forced into the slug 6. The pairs of indented portions 10 and 11 are on opposite sides of the outlet-box wall, and are herein shown as arranged at right angles with each other.

It will be observed that the slug 6, when replaced in its opening, is positively secured therein by the indented portions 10 and 11 of the fins 7 and 9, respectively. By making the slug smaller than its opening I eliminate friction as a securing means, thereby securing a more reliable fastening and one the strength of which is practically invariable. It has been found that where the slug is substantially the same size as its opening the friction varies in amount and in efficiency as a securing means, it depending upon the condition of the dies, method of operating, etc.

While the slug is securely held in its opening so as not to be shaken therefrom by the rough handling to which outlet boxes are likely to be subjected during installation, said slug may be readily driven from its opening with a hammer or other suitable tool when the opening is to be used.

I desire it to be understood that in the practical manufacture of this device I do not regard myself as limited to the precise construction herein described, inasmuch as many departures from said construction may be made within the scope of the invention.

I claim as my invention:

1. An outlet-box wall having a flanged opening therein, and a peripherally flanged slug in said opening, the flanges on said wall and said slug extending in opposite directions, a portion of the flange on said slug being pressed into the outlet-box wall, and a portion of the flange surrounding said opening being pressed into said slug.

2. An outlet box wall having an opening

therein; a flange surrounding said opening
on one face of said wall; a slug in said open-
ing; a flange on said slug extending oppo-
sately to the flange on the wall, the flange on
5 the slug being pressed and indented into the
wall at two diametrically opposite points,
and the flange on the wall being pressed and

indented into the slug at two diametrically
opposite points.

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Witnesses:

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