

J. M. G. FULLMAN.
 KNOCK OUT CLOSURE IN WALL BOXES.
 APPLICATION FILED DEC. 2, 1910.

Patented Oct. 1, 1912.

1,039,722.

Fig. 1.

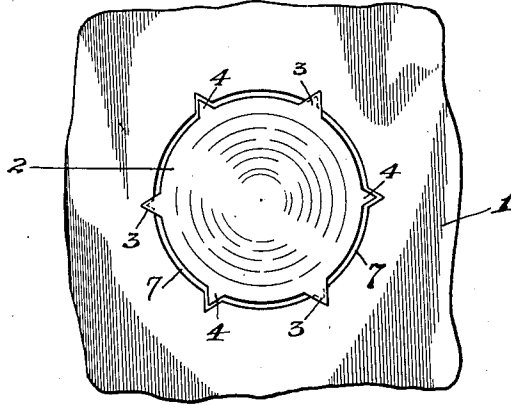


Fig. 2.

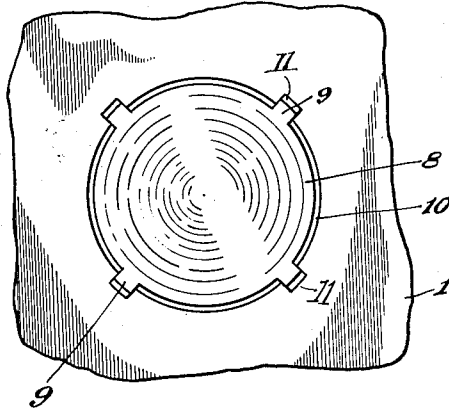
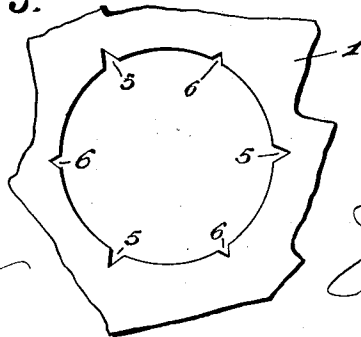


Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

JAMES M. G. FULLMAN, OF PITTSBURGH, PENNSYLVANIA.

KNOCK-OUT CLOSURE IN WALL-BOXES.

1,039,722.

Specification of Letters Patent.

Patented Oct. 1, 1912.

Application filed December 2, 1910. Serial No. 595,208.

To all whom it may concern:

Be it known that I, JAMES M. G. FULLMAN, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Knock-Out Closures in Wall-Boxes, of which improvement the following is a specification.

My invention relates to improvements in knock out closures in junction or wall boxes for electric conductors. Knock out closures are usually formed in such boxes by punching out portions in the wall or bottom of the box and then replacing the same in the opening thus formed by wedging the same therein. This method of producing a knock out closure has a number of disadvantages, first, a knock out portion when replaced in the opening is usually so securely fitted therein that it is difficult to remove it when desired without impairing or damaging the adjacent portions of the wall or bottom. This is due to the fact that the entire periphery of the knock out portion contacts with the edge of the opening and is practically cold welded therein.

The purpose of the present invention is to avoid the difficulties incident to this form of closure and I accomplish it by the devices hereinafter specified, reference being had to the accompanying drawings forming part hereof, in which—

Figure 1 is a plan view of a fragmentary portion of a box (wall or bottom) showing a closure therein. Fig. 2 is the same of modified form. Fig. 3, is a fragmentary portion of the wall of a box showing the opening illustrated in Fig. 1.

Referring to the drawings, 1 is a fragmentary portion of the box (wall or bottom) in which a closure is formed. The said closure comprises a portion 2 which is provided with series of serrations 3, 4 the opening being provided with indentations 5, 6 in the sides thereof which correspond in size with the serrations or projections 3, 4, respectively. When the portion 2 is completely removed from the opening it is turned therein sufficient to bring the larger

serrations 3 opposite the small indentations 50 6 and the small serrations 4 opposite the larger indentations 5, and is reduced in diameter by corrugating it or making it concave, the larger serrations being then forced by cold welding, into the small indentations 55 thus securing the portion 2 within the opening, and forming a space 7 between the periphery of the portion 2 and the walls of the opening at all points excepting where the large serrations are secured in the small 60 indentations. When it is desirable to remove the closure this may be readily accomplished by knocking the closure 2 in or out, with any suitable instrument.

In Fig. 2 I show a modification of my improvement, the closure 8 being completely removed from the opening and then secured therein by the arms 9, the said arms being like the serrations illustrated in Fig. 1 of different sizes and the closure being turned 70 a sufficient distance so that the wider arms, that is the arms of somewhat greater width than the recess, are forced into and welded in the recesses in a manner similar to that of the device of Fig. 1. The closure 8 is reduced in diameter as heretofore specified, and the arms 9 in not entering the recesses or pockets 11 fully, form a space 10 between the periphery of the closure and the walls of the opening.

Having described my invention what I claim and desire to secure by Letters Patent is—

1. A knock-out closure in metallic boxes for electric conductors, comprising a piece 85 punched out of the wall of a box of less size than the opening from which it has been removed, the said wall having serrations, and the said segregated piece having series of serrations differing in size and corresponding to the serrations in the wall, the larger serrations on the segregated portion being secured in the smaller serrations in the wall by cold welding.

2. A knock-out closure in metallic boxes 95 for electric conductors, comprising a piece completely segregated from the wall of the box of less diameter than the opening from

which it was removed, the said wall having indentations and the said segregated portion having corresponding arms, the larger of said arms being adapted to be secured in
5 the smaller indentations in the walls of the opening by cold welding.
In testimony whereof, I have hereunto

signed my name in the presence of two subscribing witnesses.

JAMES M. G. FULLMAN.

In the presence of—
CLARENCE A. WILLIAMS,
JOHN H. RONEY.