No. 680,254. Patented Aug. 13, 1901.

H. KRANTZ.

ELECTRICAL CONDUIT AND BOX.

(Application filed May 3, 1901.)

(No Model.)

FIG. 1.

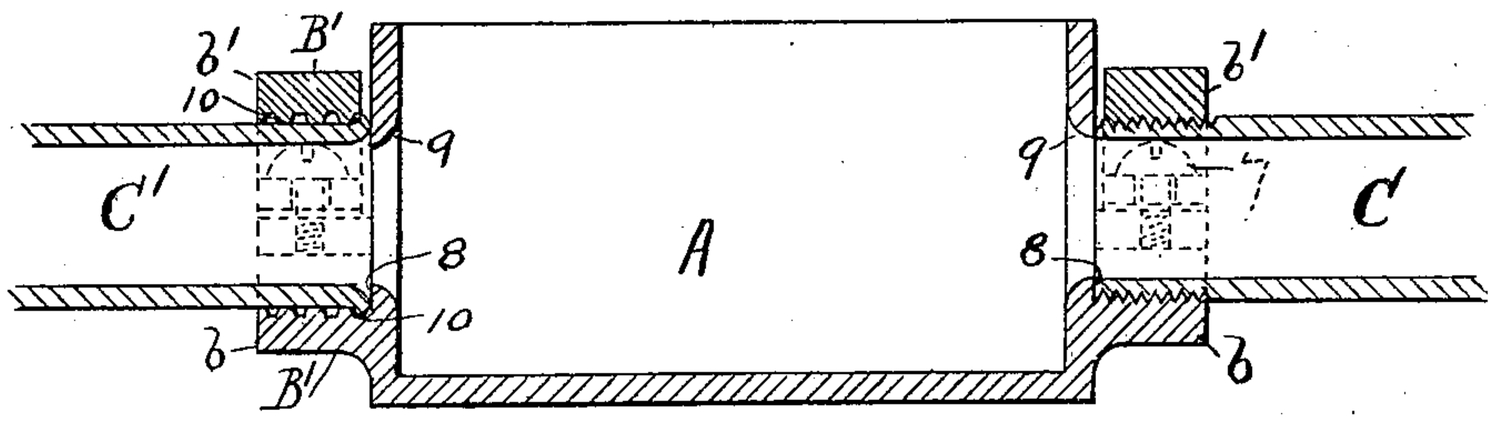


FIG. 2.

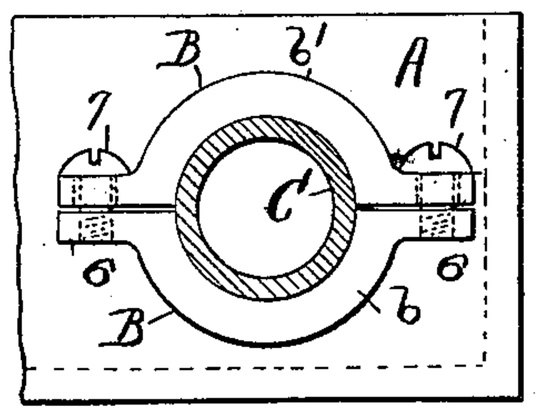


FIG. 4.

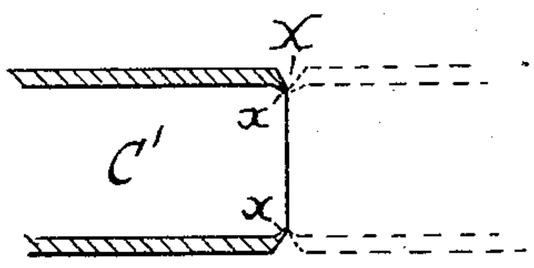


FIG. 5.

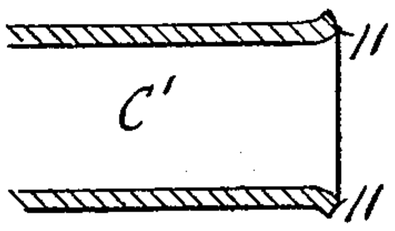
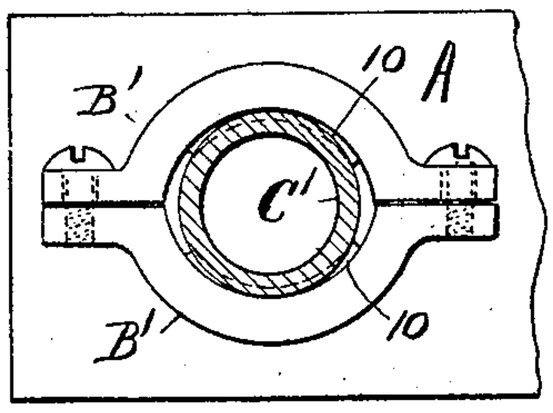


FIG. 3.



WITNESSES:

F. W. Wright.

H. Connor

INVENTOR

HUBERT KRANTZ

BY

Howson and Howson

HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

HUBERT KRANTZ, OF BROOKLYN, NEW YORK.

ELECTRICAL CONDUIT AND BOX.

SPECIFICATION forming part of Letters Patent No. 680,254, dated August 13, 1901.

Application filed May 3, 1901. Serial No. 58,638. (No model.)

To all whom it may concern:

Be it known that I, HUBERT KRANTZ, a citizen of the United States of America, residing in the borough of Brooklyn, in the county of Kings, State of New York, have invented Improvements in Electrical Conduits and Boxes, of which the following is a specification.

The main object of my invention is to make the connections of electrical conduit-pipes and outlet-boxes more simple and convenient. This object I attain in the manner which I will now describe, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section through an outlet-box and the ends of two conduit-pipes connected thereto. Fig. 2 is a partial end view of the box, showing the connection at the right of Fig. 1. Fig. 3 is a similar view showing the other style of connection at the left of Fig. 1; and Figs. 4 and 5 are sectional views of conduit-pipes, illustrating the manner of forming the ends thereof.

I dispense with the use of bushings by forming the inner faces of the split connecting-necks with internal threads or like projections to engage with threads or other projections on the ends of the pipes.

Instead of making the body of the outlet-box split, I prefer to make the body with solid side walls, having openings, but with each connecting-neck separately split, as will be seen on reference to Figs. 1, 2, and 3. In these figures, A represents the body of the box, which has any suitable number of outwardly-projecting necks B B′, to which the ends of the conduit-pipes C C′ are to be connected. One half (the lower half) of each neck is formed integral with the body A, while the other and upper half is a separate detachable stirrup. At the right of Fig. 1 and in Fig. 2 the lower part of the neck is shown as a semicylindrical neck *b* with lugs 6 6, all formed integral, as by casting with the body A, while the upper part *b′* is like the lower half, but separate, and the two parts are to be secured together by means of bolts 7 7 or other suitable means. The hollow cylindrical interior of the two-part neck B is shown as threaded (the two halves being tapped together) to receive the threaded end of the conduit-pipe C. At the inner end of the neck the box has an annular stop-shoulder 8 with a flaring inner face 9.

Instead of making the two parts of the outwardly-projecting necks true semicylinders, substantially concentric with the pipe C, as shown in Fig. 2, they may be made of a larger curve, as shown at B′ in Fig. 3, and formed with projections or shoulders 10 to engage shoulders formed on the end of the pipe C′. These shoulders can conveniently be formed by flaring out the open end of the pipe, as seen more clearly at 11 in Fig. 5. This construction at the same time enables me to get rid of a common feature of objection illustrated in Fig. 4, which shows how the cutting of a pipe length at X forms and leaves a sharp inwardly-projecting edge at *x*, liable to chafe and cut the wire insulation. By flaring the end of the pipe outward by any suitable tool to the form illustrated in Fig. 5 this sharp inner edge is removed and at the same time an outwardly-projecting shoulder formed for coupling up the pipe end with an outlet-box or other part, as illustrated at the left of Fig. 1 and in Fig. 3.

In either of the forms of connection shown a pipe can be connected up or disconnected by simple attachment or removal of the stirrup without disturbing any of the other connections to the box.

I claim as my invention—

1. An electrical conduit-box with a split connecting-neck formed with internal projections in combination with the pipe end having external projections to engage therewith, the box having an internal stop-shoulder at the inner end of the connecting-neck.

2. An electrical conduit-box with a split connecting-neck internally threaded in combination with the pipe end correspondingly threaded externally, the box having an internal shoulder at the inner end of the connecting-neck.

3. An electrical conduit-box with a split connecting-neck internally threaded, the box being formed with an inwardly-flaring internal shoulder at the inner end of the neck.

4. The combination of an electrical conduit-pipe with an outlet-box having an outwardly-projecting neck, in two parts, one formed on the body and the other separate

therefrom, and means for securing the two parts together.

5. An electrical outlet-box having connecting-necks, each in two parts, one formed integral with the body of the box and the other a separate piece.

6. An electrical outlet-box having connecting-necks, each in two parts, one formed integral with the body of the box and the other a separate piece, and the two parts having internal projections to engage with the pipe end.

7. An electrical outlet-box having a connecting-neck in two parts with side flanges or lugs, one part being formed integral with the body of the box and the other a separate piece, and adapted to be secured to the part on the body by means of the lugs.

8. An electrical conduit-box having a solid side wall with an opening and a semicylindrical connecting-neck formed integral with the body of the box and means for securing the end of the pipe therein, the box having at the inner end of the neck a shoulder flaring on the inside of the box.

9. An electrical outlet-box having a connecting-neck in two parts, one formed integral with the body of the box and the other a separate piece, each part having internal projections, and the box having at the inner end of the neck a shoulder flaring on the inside of the box.

10. An electrical outlet-box having a solid side wall with an opening and a semicylindrical connecting-neck formed integral with the body of the box and means for securing the end of the pipe therein.

11. An electrical outlet-box having a solid side wall with an opening and a semicylindrical connecting-neck formed integral with the body of the box and means for securing the end of the pipe therein, the box having at the inner end of the neck a shoulder, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HUBERT KRANTZ.

Witnesses:
HUBERT HOWSAR,
F. WARREN WRIGHT.