C. J. DORFF.

ELECTRIC OUTLET BOX.

APPLICATION FILED APR. 6, 1908.

926,246. **Patented June 29, 1909.**

3 SHEETS—SHEET 1.

Fig. 1.

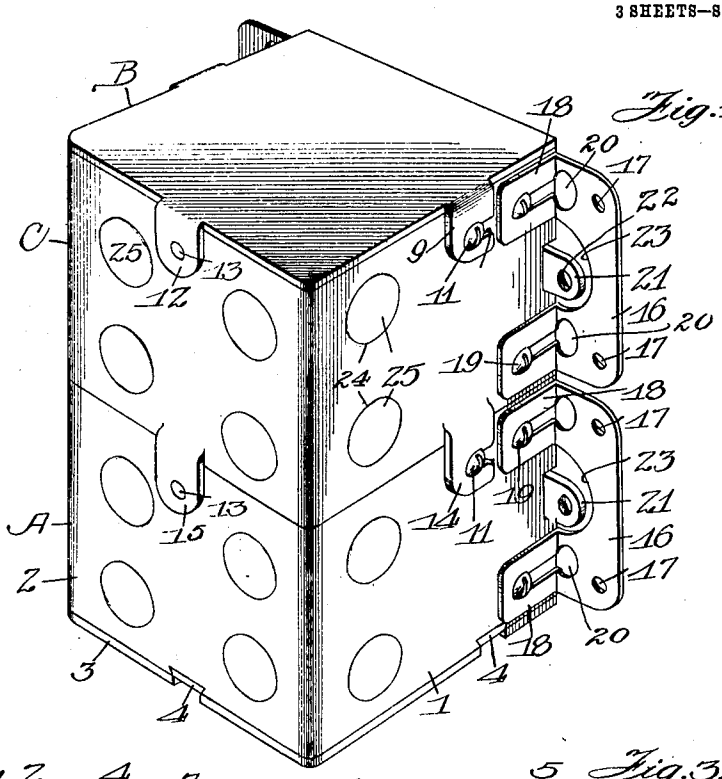


Fig. 2.

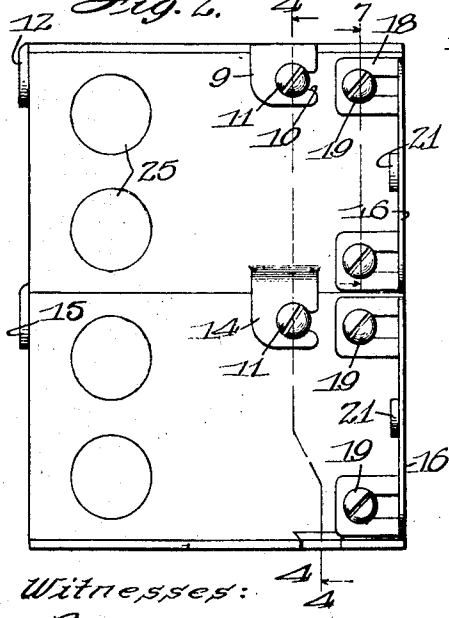
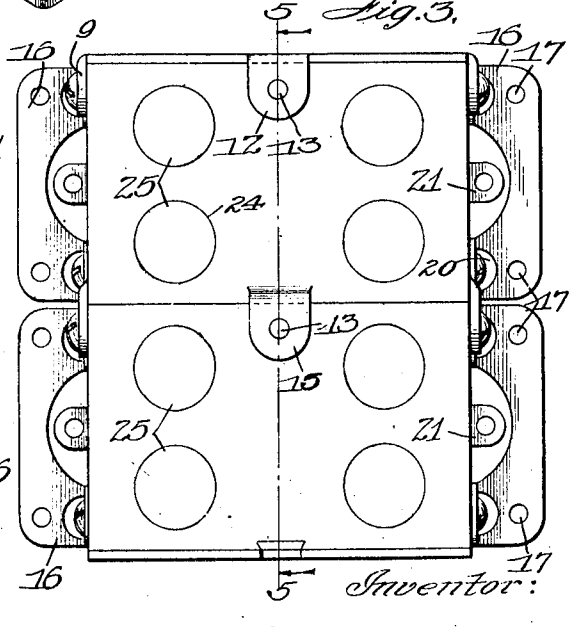


Fig. 3.



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3 SHEETS—SHEET 2.

Fig. 4.

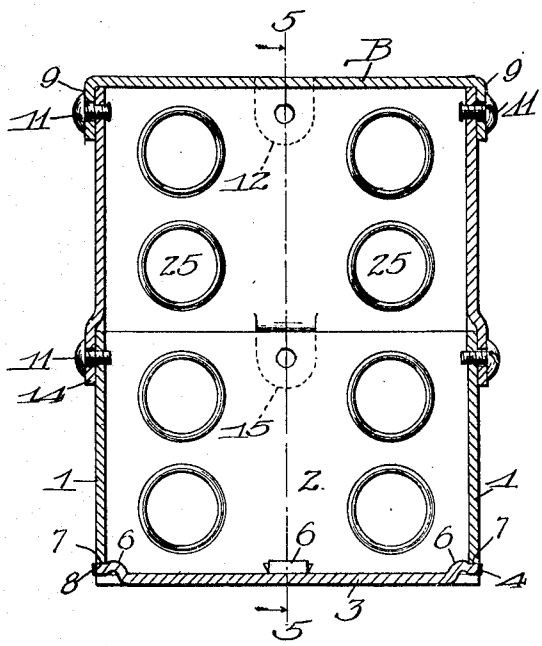


Fig. 5.

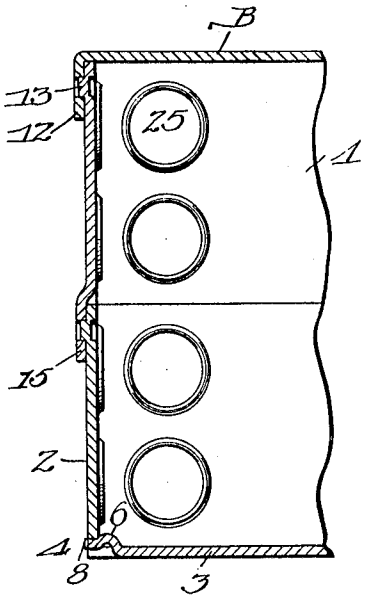


Fig. 6.

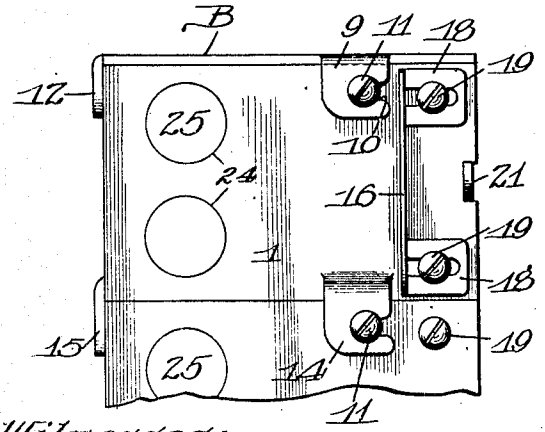
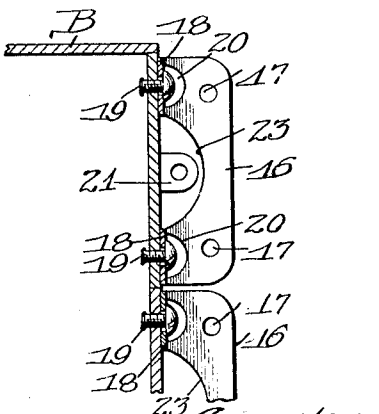


Fig. 7.



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3 SHEETS—SHEET 3.

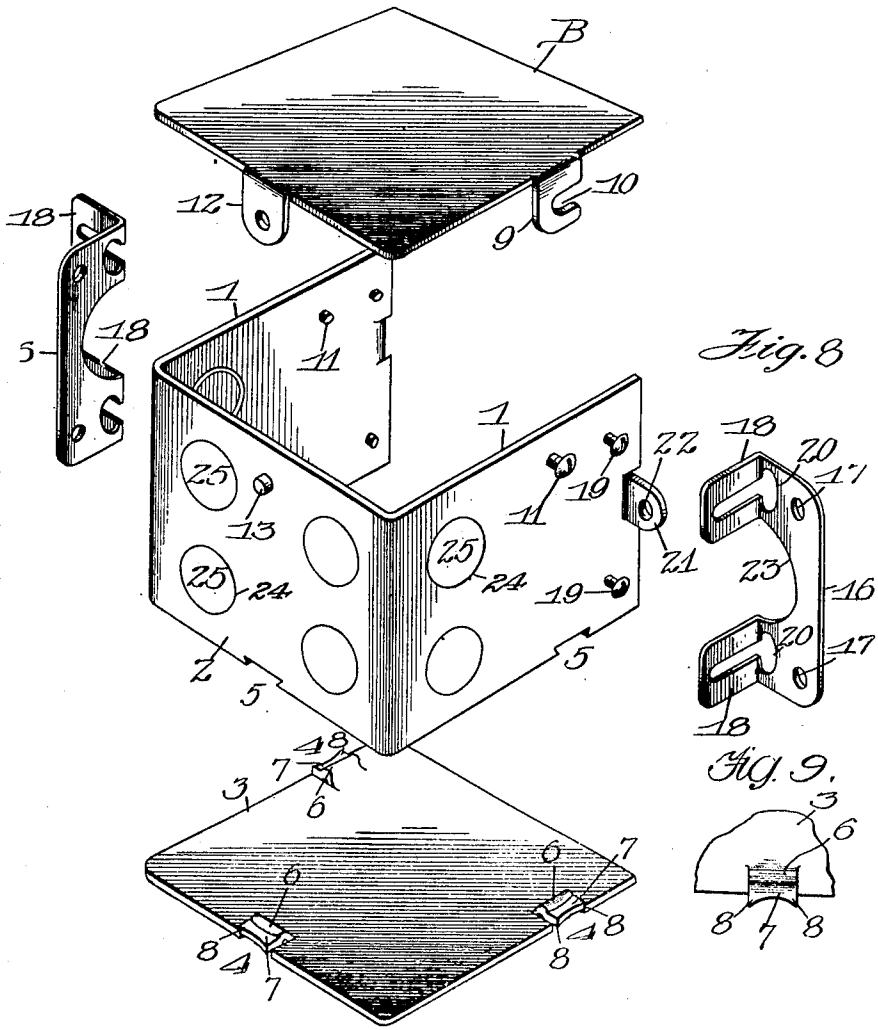

Fig. 8

Fig. 9.

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UNITED STATES PATENT OFFICE.

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ELECTRIC OUTLET-BOX.

No. 926,246. Specification of Letters Patent. Patented June 29, 1909.

Application filed April 6, 1908. Serial No. 425,397.

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.

This invention relates to junction or outlet boxes such as are used in wiring buildings and intended to receive switches, fuse blocks, and the like.

More specifically, the invention relates to the type of outlet box which is made in sections, in order that when installing the box the workman may adjust its size to accommodate the required number of switches or other devices.

One of the objects of the invention is to provide improved means for conveniently and rigidly securing together the sections of such a box.

The invention also relates to an improved means for attaching an electric outlet box to its supports in the wall or other structure.

The invention also relates to the other improvements in outlet boxes hereinafter set forth.

In the accompanying drawings, Figure 1 is a perspective view of a two-section outlet box embodying the features of my invention. Fig. 2 is a side elevation of said box. Fig. 3 is a rear end elevation thereof. Fig. 4 is a section on dotted line 4 4 of Fig. 2. Fig. 5 is a fragmental section on dotted line 5 5 of Fig. 4. Fig. 6 is a fragmental side elevation showing a box-supporting ear in a different position from that illustrated in Fig. 2. Fig. 7 is a section on dotted line 7 7 of Fig. 2. Fig. 8 is a perspective view of the parts of a single-section or unit outlet box. Fig. 9 is a detail view of a means for securing two metal parts together.

The sectional outlet-box herein illustrated comprises two parts constituting a single-section or unit box, and any desired number of duplicate sections adapted to be interposed between the two box-parts alluded to. Referring now to Figs. 1 and 8, A indicates one of said box parts and B the other, the part B constituting one end wall of a unit or single-section outlet box. C is an intermediate or spacer section.

The section A comprises the two side walls 1, the rear wall 2 and the end wall 3, the rear and side walls preferably being integral, and the end wall 3 being permanently attached to the walls 1 and 2.

One of the features of improvement is the means for connecting the end wall 3 to the walls 1 and 2. Upon one of the parts, preferably the end wall 3, are formed tongues or lugs 4 adapted to be riveted into openings or recesses 5 in the other part, which openings preferably are dovetail in form. The end wall 3 is arranged to overlie the edges of the walls 1 and 2, the lugs 4 being offset inwardly to lie within the recesses 5. As shown in Figs. 4 and 8, a rib 6 is formed upon each lug to lie behind the wall engaged by said lug, and thereby prevent inward movement of said wall. The outer end 7 of the lug 4,—in other words that portion which is intended to be riveted in the recess 5—is curved as shown in Fig. 8, and is provided with projections 8. In attaching the end wall 3 to the walls 1 and 2, said end wall is laid upon the edges of the walls 1 and 2, the curved outer end 7 of the lug 4 is flattened to expand it into engagement with the undercut ends of the recesses 5, and the projections 8 are bent laterally to engage the outer faces of the walls 1 and 2. The flattening of the curved outer end of the lugs 4 serves not only to attach the end wall to the walls 1 and 2, but also serves to draw said end wall into close contact with the walls 1 and 2. The ribs 6 prevent inward movement of the walls 1 and 2; the riveted projections 8 prevent outward movement of said walls; and the expanded outer ends of the lugs 4 prevent endwise separation of the end wall 3 and the walls 1 and 2.

The box section B is attached to the box section A in such a way as to obviate the necessity for withdrawing screws or similar devices when it is desirable to separate the parts A and B. Referring to Figs. 1 and 8, it will be seen that upon the opposite sides of the section B are formed lugs 9 bent to lie upon the outer sides of the side walls of an adjacent box-section A or C. In the lugs 9 are formed open-end slots 10 to receive screws 11 mounted in each box-section A and C. Upon the rear edge of the box section B is a perforated ear 12 bent to lie against the rear wall of an adjacent box-section. Each of the sections A and C is provided with a stud 13 adapted to lie in the opening of the ear 12. The stud 13 may be conveniently formed by displacing a part of the metal of the wall out of the plane of said wall as

shown in Fig. 5. The section B is secured to the adjacent box section by slipping the slotted lugs 9 under the heads of the screws 11, engaging the perforated ear 12 with the stud 13 and tightening up the screws 11.

Each box-section C is provided with slotted lugs 14 and a perforated ear 15 which are identical with the lugs 9 and ear 12 of the section B.

The box is mounted in the wall or upon any other suitable support by means of the ears 16. Each of said ears is provided with one or more openings 17 to receive screws or other fastening devices, and near each end with an angular attaching lug 18 adapted to be secured to a box section A or C. As shown in Figs. 1 and 2, the lugs 18 are slotted to receive attaching screws 19, the slots having closed rear ends and open forward ends, and the ear 16 being cut away at 20 near its juncture with the lugs 18 to permit said lugs to be slipped under the heads of the screws 19.

Under certain conditions it is desirable to place the attaching ears 16 some distance in the rear of the front face of the box, as shown in the Fig. 6. When the screws 19 are loosened the lugs 18 may be slipped out from under the heads of said screws, the ears reversed in position, and said lugs again slipped under said screws.

It will be seen that the box sections may be assembled to form complete boxes of any desired length, and that the sections may be secured together without withdrawing the screws 11 and reinserting them in their openings, the arrangement shown resulting in a great saving of time. If desirable the screws 11 may be locked against withdrawal from their threaded openings, as by riveting over or forming a bur upon the inner ends of said screws, as indicated in Fig. 4.

The switches, fuse blocks, or other devices to be placed in the box are supported therein, in this instance, by means of ears 21 having threaded openings 22 therein. The box-supporting ears 16 are cut away at 23 to accommodate the ears 21.

Any suitable means may be provided for conveniently entering conduits into the box, but I preferably employ openings 24 which are closed by plugs 25 until they are needed to receive conduits.

It is evident that various changes may be made in the embodiment herein shown without departing from the spirit and scope of my invention, therefore no undue limitation should be understood from the foregoing detailed description.

I claim as my invention:

1. An electric outlet box comprising two sections, and means for securing said sections together comprising screws in opposite side walls of one section and slotted lugs rigidly fixed on the other section and extending in planes substantially parallel with said side walls and adapted to be slipped beneath the heads of said screws.

2. An electric outlet box comprising two sections, and means for connecting said sections together comprising screws mounted in the side walls of one section and a stud upon the rear wall of said section, slotted lugs upon the other section adapted to be slipped under the heads of said screws, and a perforated ear upon the rear part of the last mentioned section adapted to engage said stud.

3. An electric outlet box comprising two sections, and means for connecting said sections together comprising portions projecting from opposite side walls of one section, and lugs rigidly fixed upon the other section and extending in planes substantially parallel with said side walls and having open-end slots adapted to receive said projecting portions.

4. An electric outlet box comprising two sections, and means for connecting said sections together comprising screws in opposite side walls of one section, and a stud projecting from the rear face of the rear wall of said section, lugs upon the other section having forwardly-facing open-end slots adapted to receive said screws, said lugs being adapted to be slipped under the heads of said screws, and a perforated ear upon the rear edge of the last mentioned section adapted to receive said stud.

5. A structure comprising two metal walls, one of said walls having a recess therein and the other wall having a lug thereon adapted to be riveted in said recess, a projecting portion on said lug adapted to lie at the inner side of the wall engaged by said lug, and projecting portions on the outer end of said lug adapted to be riveted into engagement with the wall engaged by said lug.

6. A structure comprising two metal side walls, a rear wall, and an end wall adapted to overlie the edges of said other walls, and inwardly offset lugs on said end wall adapted to be riveted in recesses in said rear and side walls.

7. A structure comprising metal side walls, a rear wall, and an end wall overlying the edges of said other walls, and curved lugs on said end wall adapted to be flattened into engagement with the walls of recesses in said other walls, such flattening of said lugs drawing said end wall tightly against the other walls.

8. A structure comprising two metal walls, one of said walls having a dovetail recess therein, and the other wall overlying the edge of the first mentioned wall and having an offset curved lug thereon adapted to be flattened into engagement with the walls of said recess, such flattening of said lug drawing said walls into close contact; a rib on said lug at one side of the wall engaged by said lug, and projections on the end of said lug adapted

to be riveted into engagement with the wall engaged by said lug.

9. A structure comprising two metal walls, one of said walls having a recess therein and the other wall having a lug thereon adapted to be riveted in said recess, and a projecting portion on said lug adapted to lie at one side of the wall engaged by said lug.

10. A section for an electric outlet box comprising a plate having an angular lug on each of three of its edges, two of said lugs on opposite edges having open-end slots therein.

11. A section for an electric outlet box comprising a plate having an angular lug on each of two opposite edges, said lugs having open-end slots therein extending substantially parallel with the plane of said plate.

12. A section for an electric outlet box comprising a substantially rectangular plate having an angular lug on each of three of its edges, two of said lugs on opposite edges having open-slots therein extending substantially parallel with the plane of said plate, the other lug having an opening therein.

13. An electric outlet box having a box-supporting ear, said ear having two angular attaching lugs, and two screws in said box for attaching said lugs to said box, each lug having a slot therein to receive one of said screws, each slot being open at its end adjacent to said ear, and the latter being cut away to permit the passage of the heads of said screws through it.

14. A multiple-section electric outlet box comprising a box-section having rear and side walls and an end wall permanently secured to said other walls; screws projecting from said side walls; a spacer-section having rear and side walls, and lugs on said side walls extending in planes substantially parallel with the planes of the side walls of the first mentioned box-section, said lugs having open-end slots therein to receive said screws; said spacer-section having screws projecting from its side walls; and an end wall having lugs thereon extending in planes substantially parallel with the planes of the side walls of the other sections, the last mentioned lugs having open-end slots therein to receive the last mentioned screws.

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