H. T. PAISTE.

WALL CABINET FOR ELECTRICAL APPARATUS.

APPLICATION FILED MAR. 24, 1908.

933,661.

Patented Sept. 7, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

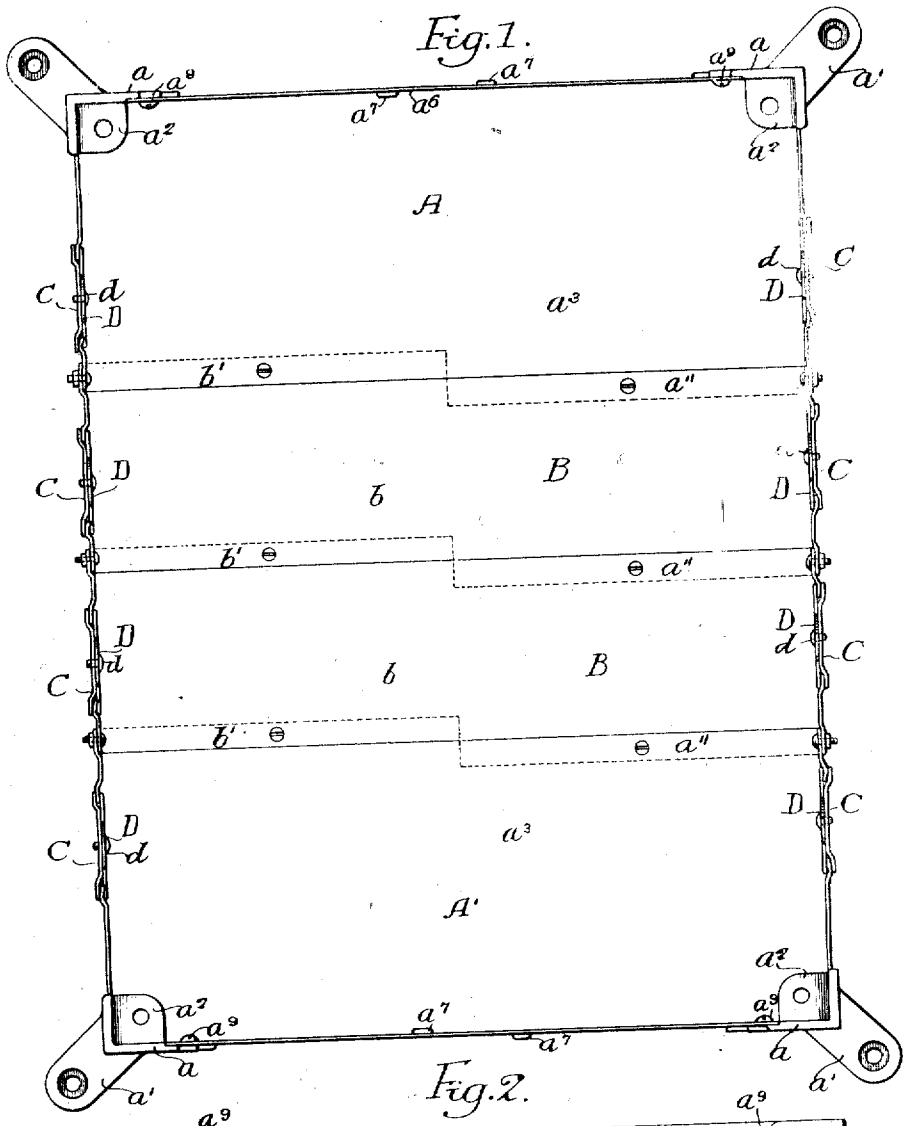

Fig. 2.

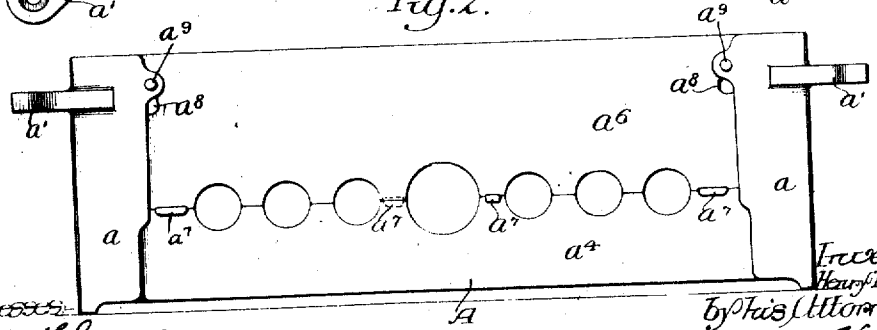

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Fig. 3.

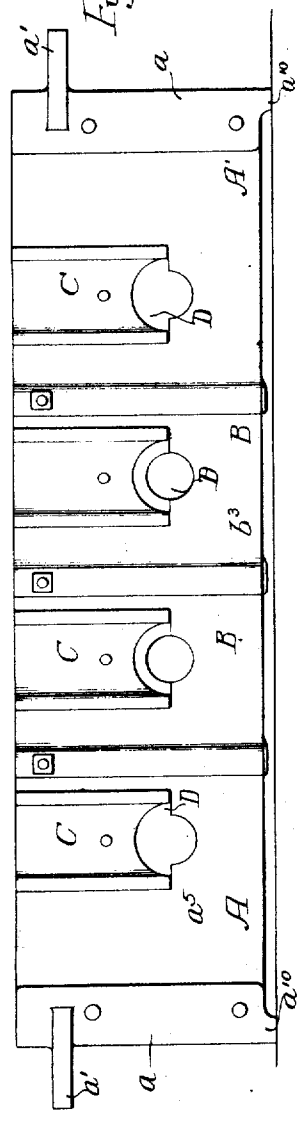


Fig. 7.

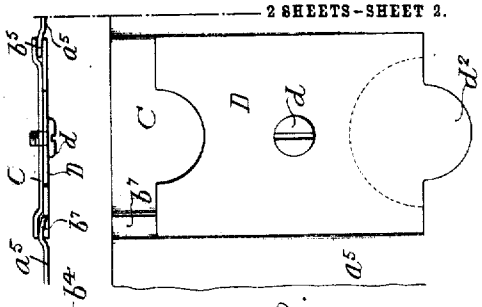


Fig. 8.

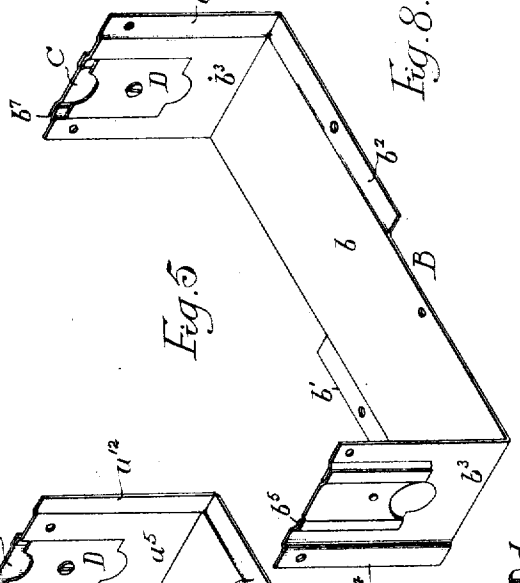


Fig. 5.

Fig. 4.

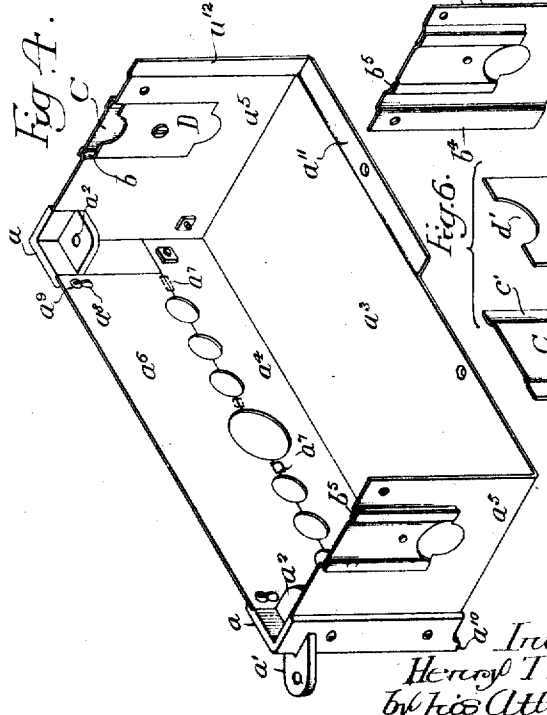
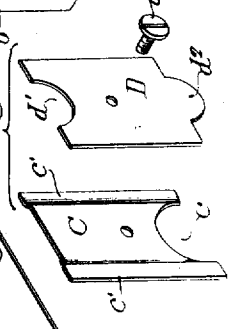


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY T. PAISTE, OF PHILADELPHIA, PENNSYLVANIA.

WALL-CABINET FOR ELECTRICAL APPARATUS.

933,661. Specification of Letters Patent. Patented Sept. 7, 1909.

Application filed March 24, 1908. Serial No. 422,894.

To all whom it may concern:

Be it known that I, HENRY T. PAISTE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Wall-Cabinets for Electrical Apparatus, of which the following is a specification.

One object of my invention is to provide a box-like containing structure of improved construction which may be utilized for the reception of such electrical devices as switches, fuses, distributing panels and the like, and which shall have its parts so constructed as to permit of it being conveniently adjusted as to its size.

I further desire to provide a sectional wall cabinet consisting of two end sections and any number of intermediate sections, so designed as to be of relatively inexpensive construction and yet be capable of being quickly assembled to make a tight, substantial cabinet or containing box.

Another object of the invention is to provide a box of the above-noted construction with means whereby its outlet openings, when not desired for use, may be tightly closed and yet at any time be opened for the insertion of insulating bushings or conductor-carrying conduits.

These and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings in which,

Figure 1 is a plan of a wall cabinet or box constructed according to my invention, and having in this case two intermediate units. Fig. 2 is an end elevation of the cabinet shown in Fig. 1; Fig. 3 is a side elevation; Fig. 4 is a perspective view of one of the end units; Fig. 5 is a perspective view of one of the intermediate units; Fig. 6 is a detached perspective view of the parts constituting the removable and adjustable sections devised for certain of the outlet openings, and Figs. 7 and 8 are respectively a plan and a front elevation of a portion of one side of my improved cabinet, showing the outlet-closing plate in position to cover the outlet.

In the above drawings A and A' represent two substantially similar end units and B—B two intermediate units, which are also similar to each other and which may be utilized in any desired number to form a box of any required length. Each end unit is made of pressed sheet metal, having a bottom section a^4, an upwardly extending end section a^4, and two side sections a^5; the whole being held together and properly stiffened by a pair of corner pieces a. While the side sections a^5 extend to the full height of the box or cabinet, the end section a^4 is of considerably less height and its upper edge is provided with a number of semi-circular openings, as shown in Fig. 4, which, with semi-circular openings of the same size formed in a removable end piece a^6, are designed to receive the insulating bushings or conduit ends through which electrical conductors enter the box.

In the present instance there are seven of the above mentioned openings at each end of the box and it will be noted that the section a^6 is conveniently removable, though capable of being rigidly held in place when desired. To this end each of the corner pieces a is recessed along the upper portion of its edge nearest the section a^6 to an extent sufficient to permit the inner surface of said section to lie in substantially the same plane as the inner surface of the end section a^4 and the lower edge of the section a^6 is provided with a number of struck-up lugs a^7 designed to engage the inner and outer faces of the end section a^4 so as to assist in preventing the section a^6 from being forced in or pulled outwardly beyond its proper position. Each of the upper corners of the section a^6 is provided with a key-hole slot a^8 for the reception of a screw a^9 mounted in the corner piece a; it being thus possible to remove the end section a^6 by loosening said screws and after raising it a distance equal to the length of the slots, moving it inwardly until it is free of the screws.

Each of the corner pieces a has an outwardly extending lug a' whereby the cabinet may be held to a suitable support and in addition has an inwardly extending lug a^2 for the reception of a base plate or cover. Said corner pieces are rigidly held to the end units of the box by a series of bolts, as shown, and in addition have their lower ends extended, as indicated at a^{10}, to form feet whereby the main portion of the box may be held away from any adjacent surface.

The edge of the bottom section a^3 nearest the intermediate unit B has, for one-half of its length, a projecting offset portion a^{11} designed to fit under the bottom portion b of said unit so as to permit its upper face to be flush with the upper face of the bottom section a^3 of the end unit of the cabinet or box.

Similarly, from Fig. 5 it will be seen that each intermediate unit has, for half the length of one of the edges of its bottom section, an offset extension b' and on its other bottom edge a second extension b^2 along the opposite half thereof; the construction being such that the extension b' fits under the body section a^3 and, with the extension a^{11}, completely covers the joint between the two parts b and a^3 of said two sections.

The free vertical edge of one of the side sections a^5 of the end unit A of the casing has an offset extension a^{12} and is designed to fit outside of the adjacent edge of the side sections b^3 of the intermediate unit; each of said intermediate parts thus having one edge of each of its vertical sections plane and the other offset as indicated at b^4. Said offsets occur on opposite edges of the two side sections so that each intermediate unit matches or fits not only with the end units of the box but also with other intermediate units to make a complete strongly-braced container. The joints between these units are almost completely covered by the offset extension, and in each instance bolts or screws are provided whereby the various units are connected to each other.

In order to provide suitable outlets for bushings or conduits in the side sections of the units A, B and A', I provide in each of them any desired number of relatively wide vertical slots or recesses, the vertical sides of which are offset or shouldered, as indicated at b^5, while the bottom of each recess has a semi-circular outlet of greater or less diameter, as may be desired. For closing each of the recesses in these end sections I provide two plates C and D held together by a screw d. The first of these plates has a semi-circular recess or indentation c at one end and has its longitudinal edges offset as indicated at c'. The plate D has a semi-circular recess d' at one end and a semi-circular projection d^2 at the opposite end, said recess d' being of the same diameter as the recess in the bottom of the slot in each of the side sections of the units B, A, etc.

When it is not desired to utilize the openings in the side sections, the two plates C and D are put together in the positions indicated in Figs. 4 and 5; that is to say, with the semi-circular recess c of the plate C down and the semi-circle projection d^2 of the plate D fitting into the similarly shaped recess in the bottom of the slot; the plate D being on the inside. In order to retain the plates rigidly in position, the screw d may be tightly set up, and to further prevent their dislodgment I make the plate D slightly shorter in length than the plate C so that its upper edge falls below the upper edge of the box. I also press inwardly a short length b^7 of one of the offset edges b^6, so that when the two plates are tightly held together by their screw d, they cannot be moved upwardly owing to the obstruction presented by this small lug.

When it is desired to run an electrical conductor into the box through one of the side sections thereof, the screw d of the removable closure in the nearest slot thereof is loosened and the plates C and D constituting such closure are removed. After the conduit or bushing for the conductor has been properly mounted in the bottom of the slot of the side section, the plates C and D are replaced, although in this case the plate D is turned on the screw d as a pivot through an angle of 180°, so that the two recesses c and d' co-incide with one another and the bushing, being of the proper diameter, is rigidly held in place after the screw d is again set up.

From the above description of the preferred arrangement of parts it will be noted that the main units of my box may be conveniently formed by the use of but two dies;—one for the end units and one for the intermediate units. As is obvious, the cost of the construction is relatively low since it is possible to make the parts out of pressed metal, and inasmuch as the box may be made of any desired capacity simply by varying the number of intermediate units used, it will be seen that it may be employed to great advantage in many instances.

Much trouble has hitherto been experienced in structures of the general type to which my invention belongs, owing to the fact that the bushing or conduit-openings in the sides or ends were not so arranged or designed as to permit of the ready insertion and removal of the bushings or conduits, and this objection was particularly noticeable when it was endeavored to provide such openings in the end sections of the intermediate units of the box or cabinet. By my invention any such objection is obviated and it will be seen that the cabinet as a whole is of a most convenient, substantial and inexpensive construction.

I claim:

1. A box having two end units and an intermediate unit or units, each of said end units having off-set extensions along a portion of its free edge and each of the intermediate units also having a second set of offset extensions along portions of its free edges, said extensions of the intermediate and end units being arranged to permit them to fit together and each of the end units having cast corner pieces provided with inwardly extending lugs for the reception of a cover.

2. A box consisting of two end units and an intermediate unit or units all formed of pressed sheet material, each of said end units having a bottom, an end and side portions, and being provided with an offset ex-

tension formed along substantially one-half the edge of its bottom portion, there being an offset extension from the adjacent edge of one of the side portions, each of the intermediate units having a bottom and side sections, and said bottom section having oppositely placed offset extensions along one half the length of each of its edges and an offset extension on one of the edges of each of its side sections, said extensions being placed to coöperate with the extensions of the end units to maintain said parts in position relatively to each other, with means for holding said parts together.

3. A box for electrical apparatus consisting of two end units and an intermediate unit or units, each of the end units consisting of a fixed and a removable section constructed to confine between them a bushing or bushings, said removable section having at each end a key-hole slot and said stationary section having screws entering said slots.

4. The combination in a box for electrical apparatus of two end units and an intermediate unit or units, each of the end units consisting of a fixed and a removable section constructed to confine between them a bushing or bushings, said removable section having at each end a key-hole slot, and said stationary section having screws entering said slots, with guiding means whereby said sections are maintained in substantially the same plane.

5. A box for electrical apparatus consisting of independent pressed-up sheet metal end and intermediate units, with castings forming corner pieces connected to hold together the end and side portions of the end units, said corner pieces having each an inwardly and an outwardly extending lug and being also extended to form a supporting foot.

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

HENRY T. PAISTE.

Witnesses:
WILLIAM E. BRADLEY,
JOS. H. KLEIN.