

C. T. WOOTTEN & A. P. RICHARDSON.

SHEET METAL BOX.

APPLICATION FILED JULY 19, 1907.

948,122.

Patented Feb. 1, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

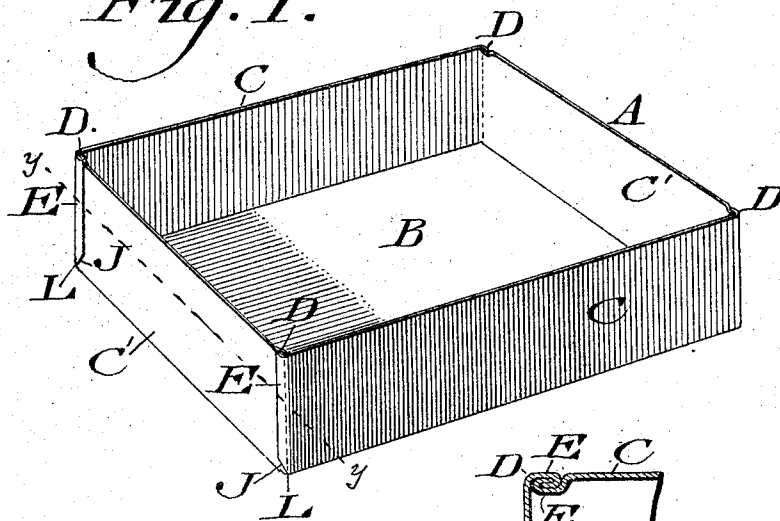


Fig. 3.

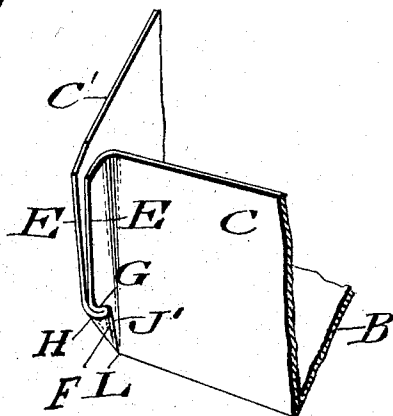


Fig. 2.

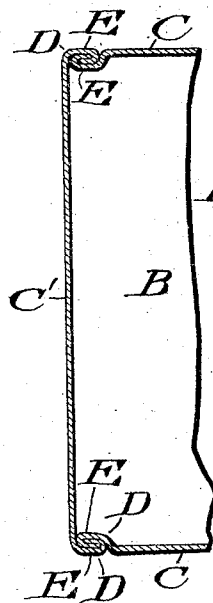


Fig. 4.



Witnesses

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SHEET METAL BOX.

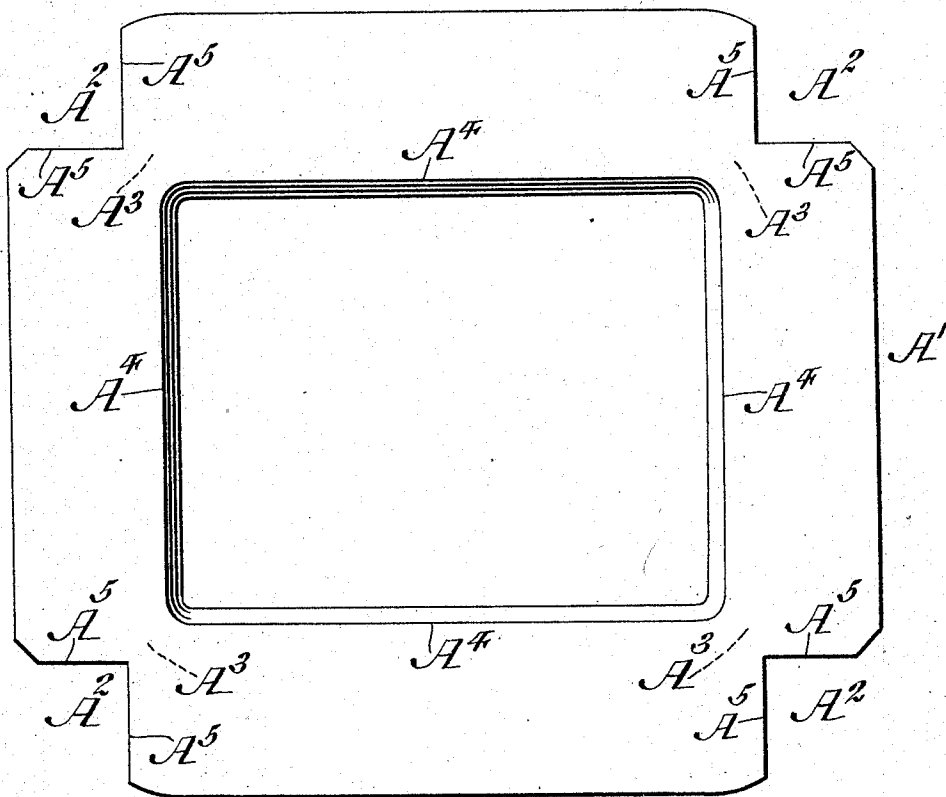
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2 SHEETS—SHEET 2.

Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SHEET-METAL BOX.

948,122.

Specification of Letters Patent.

Patented Feb. 1, 1910.

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To all whom it may concern:

Be it known that we, CHARLES T. WOOTTEN and ARTEMAS P. RICHARDSON, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Sheet-Metal Box, of which the following is a specification.

Our invention consists of a sheet metal box composed of a bottom and sides, having its corners closed by specially constructed lap-joints composed normally of portions of the box where the corners are formed, turned-in and curled laterally on each other, and the terminals of the sides above said lap-joints being connected by other lap-joints, whereby the ends of the sides of the box are firmly connected and the bottoms of the corners thereof are hermetically sealed, thus preventing the entrance of air and moisture into the box at said corners, and the employment of solder is avoided said joint furthermore being at the sides of the box adjacent to the corners, portions of the material which comprise said joints being deflected inwardly so that the exterior of the joints are flush with the sides of the box, whereby said sides are uniformly right-lined from corner to corner of the box.

For the purpose of explaining the invention, the accompanying drawings illustrate a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a perspective view of a box embodying our invention. Fig. 2 represents a horizontal section of a portion of the box taken on the line $y-y$, Fig. 1. Fig. 3 represents a perspective view of a portion, showing steps in the formation of the lap-joints of the box. Fig. 4 represents a longitudinal section of a portion at the corner joint, enlarged. Fig. 5 represents a plan view of the blank from which the box embodying the invention is made.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings:—A designates a sheet metal box, which is composed of the bottom B, and sides C, the terminals of adjacent sides being connected by lap-joints D.

In carrying out our invention, we take a

blank A' of sheet metal of substantially quadrilateral form and remove the corners therefrom, leaving right-angular recesses A² in lieu thereof, it being noticed that portions A³ of the metal of the blank remain between the angles of said recesses and the border lines A⁴ of what subsequently comprises the bottom B of the box. The blank is bent up on said lines A⁴ and the ends of the portions from which the sides C are formed approach each other as tongues E, E, see Fig. 3. The portions A³ of the blank are curled or bent laterally in said Fig. 3, the resultant curls or bends J' joining the lower ends G, G of the tongues E, as in said figure. Said curls or bends are then further bent around and with them said tongues E, producing the double lap-joints J, K at the bottom and the single lap-joints D above the same, the lap-joints being adjacent to the corners of the box. The several lap-joints are then compressed and so tightly closed, it being seen that portions of said joints are deflected inwardly so as to enter the box while the exterior of the box at the places of occupation of the lap-joints are flush with the adjacent portions of the sides of the box, so that said sides are comparatively unbroken and right-lined from corner to corner of the box, as at E, Fig. 1, and the sides thus present no projections or obstacles to the lid, while the corners are hermetically closed.

Attention is especially directed to the curls or bends J', which are primarily formed of the portions A³ of the blanks as has been stated, whereby the extreme lower corners L of said curls or bends and consequently of the box are integral with the bottom and sides of the box and are without openings or slits which otherwise would require soldering to close them and there can be no leakage thereat.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. A sheet metal box composed of a bottom and sides, and lap joints joining the latter at the corners of the box, said joints being on the exterior of said sides and flush therewith, said sides being comparatively right-lined from corner to corner, the lower ends of said joints being integrally closed by adjacent portions of the bottom and sides of the box.

2. A sheet metal box composed of a bottom, sides and lap-joint corners the lap-joints being on the exterior of the box, and the bottom of the latter being integrally
5 closed by the adjacent portions of the bottom and sides, said material being curled laterally on its side, the lower ends of said joints being bent to produce double lap joints adjacent the corners of the box.

10 3. A sheet metal box composed of a bottom, sides, and lap joints joining the latter at the corners of the box, said joints being

on the exterior of said sides, and portions of the material comprising said joints being deflected inwardly, whereby the exterior of
15 the joints are flush with the sides of the box, the lower ends of said joints being bent to produce double lap joints adjacent the corners of the box.

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