I. PAROLY.

SHEET METAL BOX.

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2 SHEETS—SHEET 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Inventor

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By his Attorney

[Signature]
UNITED STATES PATENT OFFICE.

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SHEET-METAL BOX.


To all whom it may concern:

Be it known that I, ISIDOR PAROLY, a citizen of Austria, and a resident of New York city, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Sheet-Metal Boxes, of which the following is a specification.

This invention relates to a sheet metal box of novel construction in which the sides are connected to each other and also to the bottom by means of peculiar doubled flanges which form integral reinforcing strips at both sides of each of the corners of the box. The invention consists in the various features of novelty more fully pointed out in the specification and appended claim.

In the accompanying drawing:

Figure 1 is a vertical longitudinal section through a box embodying my invention;
Fig. 2, a perspective view of the box;
Fig. 3, a plan of the bottom blank;
Fig. 4, a plan showing the bottom blank partly folded;
Fig. 5, a perspective view of one of the sides showing it partly folded;
Fig. 6, a cross section through the doubled bottom flange on line 6-6 Fig. 4;
Fig. 7, a cross section through the bottom joint showing it partly folded;
Fig. 8, a cross section through the bottom joint complete, and
Fig. 9, a cross section through a modified construction of the joint.

The body of the sheet metal box is composed of a bottom member 1, and of four side members 2, the adjoining sides being either of equal or unequal length, so that the box is either of square or oblong shape.

The bottom blank is provided at each of its edges 3 with a flange 4, having beveled edges, so as to form a pair of alined salient outer angles 5, and a pair of alined recinrent inner angles 6. The blanks of the sides 2 are so bent, as to form horizontal outwardly extending flanges 7 at their lower edges.

In order to connect the sides to the bottom, flanges 4 are first bent inwards or against bottom 1, along line 3, and are then bent outwardly along a line connecting the recinrent angles 6. In this way part of flange 4, will be doubled and flattened beneath the bottom, while part will protrude beyond the bottom (Fig. 6), the salient angles 5 of adjoining flanges being brought into alinement with each other (Fig. 4).

Flanges 7 of sides 2 are placed upon the protruding sections of flanges 4, the latter are lapped over the former as at 8 (Fig. 7), and then the protruding portions of flanges 4, together with flanges 7, are folded flat against the outer faces of sides 2, to complete the joint (Fig. 8). The joint thus formed will therefore be composed of a pair of interlocking flanges, the outer one of which is partly doubled upon itself, to overlie the bottom and is thence folded axially at right angles to overside the side with which it is interlocked. The result is that the bottom is connected to the side by a bent flange integral with the bottom, and forming at the joint, a pair of horizontal reinforcing ribs which extend respectively along the bottom and along the side.

The sides 2 are connected to each other in a manner similar to that described. That is to say, each side is formed at one of its upright edges with a flange 9, which is partly doubled against the face of said side (Fig. 5) and at its outer edge with a flange 10, adapted to be engaged by the protruding part of flange 9.

When the parts are to be assembled, flange 10 of one side is placed against the protruding part of flange 9 of the adjoining side, flange 9 is lapped over flange 10 (the same as in Fig. 7), and the protruding part of flange 9 together with flange 10, is folded against the face of the side carrying flange 10 (the same as in Fig. 8). In this way, the sides are connected to each other, by a bent flange integral with one of said sides, and forming at the joint, a pair of reinforcing ribs which extends respectively along said sides.

As shown the upright flanges 9 and 10 stop short a distance from the upper edge of sides 2, which are here provided with horizontal beads 11 that extend along the top of the box, and serve as a rest for the cover and also to conceal the upper ends of flanges 9 and 10. In practice, it is preferred to first connect the sides 2 with each other, and to then connect the bottom to the sides. In this way, each pair of flanges 4 abutting at a corner of the box, will be turned over the lower ends of flanges 9, the overlapping bevelled ends of the former serving to reinforce such corner and impart a neat finish to the box.

The cover is made in all essential respects similar to the body, its top plate 12, having
the doubled angular flanges 13, that engage flanges 14 of sides 15, against which flanges 13, together with flanges 14 are upset. I therefore, desire it to be understood that the claim applies to a box cover as well as to a box body. With the modification illustrated in Fig. 9, the connection between adjoining sides (or between the sides and the bottom) is formed in the shape of a slip joint which permits the parts to be readily dismembered. Here too, the outer flange 18 is first doubled against the member 17 (side or bottom) carrying the same, and is then folded against the adjoining member 18. The flange 19 of the latter, is however, not locked to flange 18, but is slipped into the doubled portion of the same, so that it can be readily withdrawn therefrom, when the box is to be knocked down.

It will be seen that the box constructed as described, is reinforced at each of its corners by an angle strip which is integral with one of the parts, and is lapped over the part carrying the same, and also over the adjoining part. In this way, the formation and application of separate corner strips is entirely dispensed with, so that the manufacture of the box is simplified, waste is avoided, and increased strength is insured. The box being devoid of solder connections and thoroughly stiffened, is well adapted for the reception of valuables which are to be protected in a safe and fire proof manner.

I claim:

A sheet metal box comprising a bottom having flanges that extend along each of its edges, said flanges being partly doubled and flattened beneath said bottom, and extending partly upwardly from said bottom, the edges of adjoining flanges abutting at the corners on the bottom of the box, combined with side pieces against which said upwardly extending portions of the bottom flanges are flattened, said side pieces having lower flanges that are interlocked with said bottom flanges, doubled and flattened upright flanges extending along the upright edges of the box, and additional upright flanges with which said doubled upright flanges interlock, said doubled upright flanges being overlapping at their lower ends by the upturned portions of abutting bottom flanges at the corners on the bottom of the box.

ISIDOR PAROLY.