(Model.)

T. F. PALMER.

REINFORCING THE CORNERS OF SEAMLESS SHEET METAL BOXES.

No. 260,604. Patented July 4, 1882.

Fig. 1.

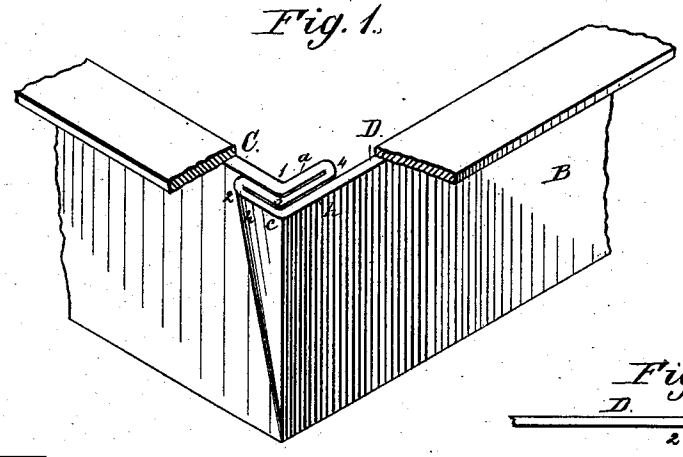


Fig. 3.

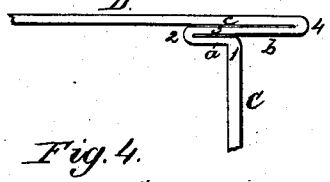


Fig. 2.

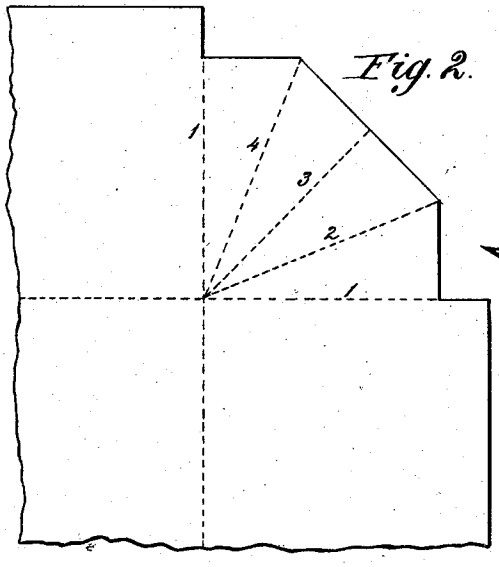


Fig. 4.

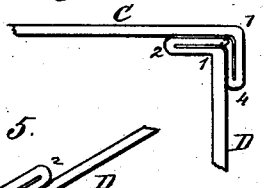


Fig. 5.



Fig. 6.



Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS F. PALMER, OF PAINESVILLE, OHIO.

RE-ENFORCING THE CORNERS OF SEAMLESS SHEET-METAL BOXES.

SPECIFICATION forming part of Letters Patent No. 260,604, dated July 4, 1882.

Application filed September 2, 1881. (Model.)

To all whom it may concern:

Be it known that I, THOMAS F. PALMER, of Painesville, Lake county, Ohio, have invented an Improvement in Re-enforcing the Corners of Seamless Sheet-Metal Boxes or Cases, of which the following is a specification.

The object of the invention is to form three thicknesses across the angles or corners of sheet-metal boxes or cases where the bend or fold weakens the metal, as hereinafter described.

Figure 1 of the drawings is a perspective view of a box or case corner, showing the arrangement of the surplus metal to form three thicknesses at the angle or corner. Fig. 2 is a plan view of the blank, showing in dotted lines where the metal is bent or folded. Fig. 3 represents the first operation of folding, which takes place on the lines 1, 2, 4, and afterward, as shown in Fig. 4, on the lines 1 3, shown relatively in Fig. 2. Figs. 5, 6, 7 show respectively a polygonal, concaved and rounded corner, which may be made in the same way.

a represents the inner, *b* the middle, and *c* the outer fold or thickness, of surplus metal, formed at one of the corners of a box, B. The contiguous sides C D are extended, after being creased or bent at 1 1, until the lines 2 4 are reached, when they are again bent to form the middle fold, *b*, which is bent on line 3 opposite to the lines of bend 1 4. This leaves one inside, one outside, and one intermediate, fold.

Where a box or case is made of a single piece of sheet metal the necessary bend at each corner greatly weakens the metal on the line of the fold and necessitates its re-enforcement in some way. This is effectually accomplished by the three thicknesses of metal, which is found in practice to render the jointless corners both strong and durable, as well as water and gas tight. The folds are riveted to the wall of the box or case, as shown at *h h* in Fig. 2 of the drawings.

Since the construction of boxes or cases out of a single piece of sheet metal, so as to have no joint at the corners, the triangular or quadruple folds have been so arranged on the inside or outside of the walls as to leave only a single thickness of metal; but

What I claim as new and of my invention is—

In a box or case made of a single piece of sheet metal, the contiguous sides extended around each corner and connected at the ends by a continuation of the surplus metal between the extensions, thus forming three thicknesses of metal around each corner, as shown and described.

THOS. F. PALMER.

Witnesses:
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A. A. AMIDON.