

CHAS E. RUSS.

Device for Making Sheet-Metal Box Covers.

117932

PATENTED AUG 8 1871

Fig 1

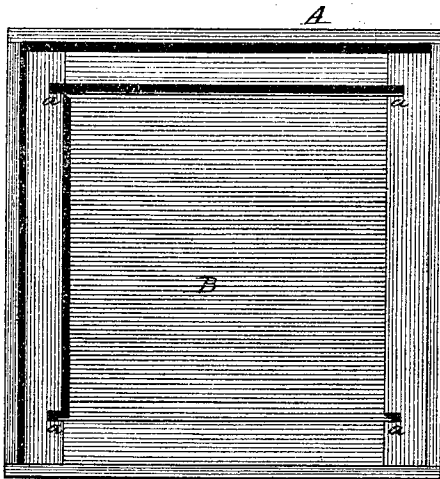


Fig 2

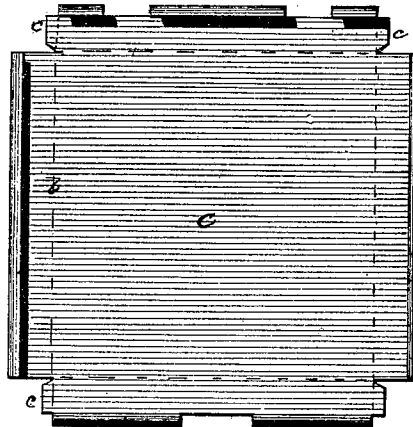


Fig 3

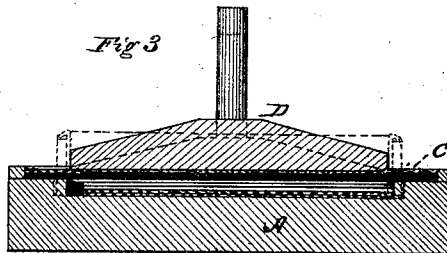


Fig 4



Fig 5



Fig 6



Witnesses

Harry King
Phil C. Dodge

Inventor.

Charles E. Russ
by Dodge & Mann
his attys.

UNITED STATES PATENT OFFICE.

CHARLES E. RUSS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN DIES FOR MAKING COVERS OF SHEET-METAL BOXES.

Specification forming part of Letters Patent No. 117,932, dated August 8, 1871.

To all whom it may concern:

Be it known that I, CHARLES E. RUSS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Dies for Making Box-Covers, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in constructing the covers of boxes out of a single sheet or piece of sheet metal by means of a pair of dies of novel construction, as hereinafter fully explained.

In the drawing, Figure 1 is a top-plan view of one of the dies. Fig. 2 is the plan of a sheet of metal prepared for the die, and out of which the cover is to be formed. Fig. 3 is a cross-vertical section of the dies with a sheet of metal between them before compression, and also showing position in dotted lines when compressed. Figs. 4 and 5 are cross-vertical sections of the cover in different stages of its formation; and Fig. 6 is a horizontal section of a portion of the cover, showing the method of forming its corners.

The object of this invention is to construct the covers for square cans or boxes, such as are used for cake, crackers, &c., out of a single sheet of metal and by means of mechanical devices.

To accomplish this, a female die, A, is made out of any suitable material, and of the size desired, with a center recess, B, from which extend, at its corners, short slots *a* into the walls of two of its opposite sides, as clearly shown in Fig. 1, one side of these slots being continuations of the other two walls of the recess, as shown in the same figure. A sheet of metal, C, out of which the cover is to be made is then cut in the form shown in Fig. 2. The portion of this sheet within the dotted lines *b*, is of the same size as the recess of the die A, while the portions outside of the dotted lines are of the required width to form the depth of the cover, and the project-

ing end pieces *c* of the same length as the slots *a*. Its edges may also be curved in a suitable manner for being conveniently wired, with spaces cut out for connecting hinges as well as a clasp, all as clearly shown in the same figure. The sheet C, thus fashioned, is then placed upon the die A, when a male die or follower, D, the face of which is of the same size as the recess B, is placed upon it, and forced or driven home by any convenient means, when the sides of the cover are formed up, leaving the projecting end pieces *c* which have entered the slots *a* extending beyond the sides of the cover, as shown by the dotted lines in Fig. 3. When the cover is removed from the die A these projecting end pieces *c* form lips, which are now bent about the corners, as clearly shown in Fig. 6, and may be soldered, if desired, thus forming strong and durable connections. If the upper edges have been bent in the first instance they will appear as shown in Fig. 4, when they can be wired and have hinges connected to them, as shown in Fig. 5.

In the construction of covers it is best to bend the edges for wiring, and cut out spaces for the hinges and clasp before the sheet is submitted to the dies. It is obvious that the same method may be employed in forming pans and similar articles as well as covers for boxes.

Having thus described my invention, what I claim is—

The combination of the die A, having slots *a* in its sides and at right angles to its recess B, with the die or follower D, for the purpose of forming up sheet-metal covers for boxes, as described.

CHAS. E. RUSS.

Witnesses:

AUGUSTUS RUSS,
C. M. BENNETT.