

H. MARTYN.
DIES FOR BOXES.

No. 172,640.

Patented Jan. 25, 1876.

Fig. 1.

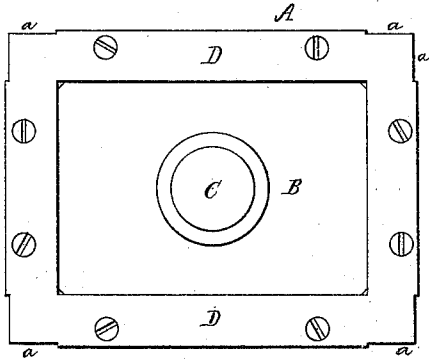


Fig. 4.

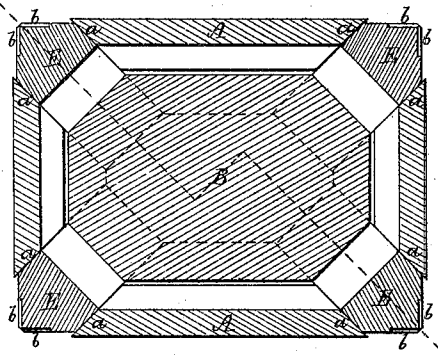


Fig. 2.

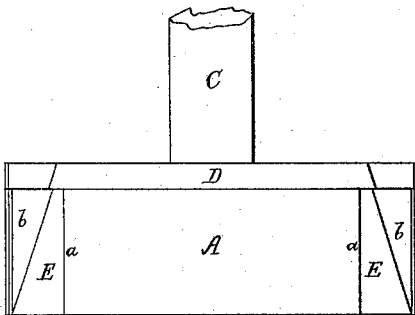


Fig. 3.

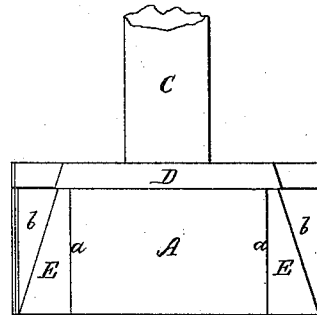


Fig. 5.

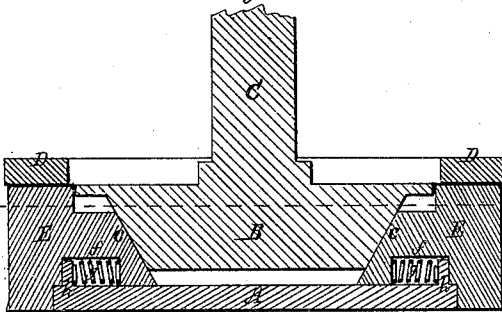


Fig. 6.

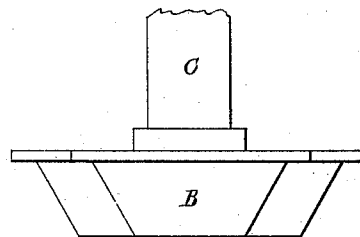
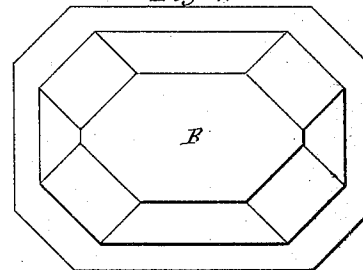


Fig. 7.



Witnesses
S. W. B. P. W.
L. W. M. W.

Henry Martyn
by his attorney
R. H. L. L.

UNITED STATES PATENT OFFICE.

HENRY MARTYN, OF EAST MEDFORD, ASSIGNOR TO HIMSELF AND
BENJAMIN F. BROWN, OF NEWTON CENTRE, MASS.

IMPROVEMENT IN DIES FOR BOXES.

Specification forming part of Letters Patent No. **172,640**, dated January 25, 1876; application filed December 29, 1875.

To all whom it may concern:

Be it known that I, HENRY MARTYN, of East Medford, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Dies for Making Pans, Box-Bodies, or their covers; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 an end view, Fig. 4 a horizontal section, and Fig. 5 a diagonal section, of a male die provided with my invention, the latter relating to such male die only, which, for the manufacture of a pan, box-body, or cover, hollow at its corners, substantially as shown in the United States Patent No. 163,088, dated May 11, 1875, and granted to me, is used with a female die or block of the kind and construction substantially as represented in the United States Patent No. 163,793, dated May 25, 1875, and granted to me.

The purpose of my present improvement is not only to make the pan, box-body, or cover with the outer surfaces of its corner folds even or flush with the outer surfaces of its sides and ends, but to admit of the article so made being readily separated from the male die.

To this end the male die, instead of being in one piece or block having at each corner two rectangular recesses to receive the folds, is provided at each corner with a movable recessed corner-piece, and with a spring thereto to draw or force it inward, and also with mechanism for pressing such corner-piece outward flush with the next contiguous side and end of the body of the die, on or preparatory to the male die commencing its descent into the female die.

After the male die may have performed its office in shaping the article, and an attempt is made to draw such male die upward out of the female die, the corner-pieces are simultaneously forced inward far enough to free them from the corner folds of the article, in order for such article to drop or readily be removed from the die.

In the drawings, A denotes the body of the die, it being chambered to receive a tapering plunger, B, (shown in side view in Fig. 6, and in bottom view in Fig. 7,) which is fixed to a stem or shank, C, that projects upward from it, as shown.

A rectangular frame, D, fixed to the upper surface of the body A, projects over the plunger at its edges, in manner as represented.

The body is provided at each of its corners with an opening, *a*, arranged to receive a corner-piece or slide, E, in each outer side of which is a triangular recess, *b*, for reception of the corner fold of a plate when converted into a pan, box-body, or cover. Each slide E is beveled on its inner side, as shown at *c*, and within the slide is a chamber, *f*, to receive a helical spring, *g*, which, at its inner end, bears against that of the chamber. The outer end of the spring rests against an abutment, *h*, that projects up from the die and into the chamber in manner as represented.

On pressing downward the plunger within the body of the die, all the corner-pieces will be simultaneously forced out the requisite distance, and will be held in position by the plunger during the descent of the die in or through the female die. On pulling upward the plunger, it will rise up to the frame D before it may commence to draw the die upward. In the meantime the corner-pieces will have been forced inward by their springs, and away from the turned-in corner folds of the metal or material of the plate.

I claim—

The pan or box die, essentially as explained, composed of the chambered body A and the series of movable recessed corner-slides E, arranged and provided with means or mechanism for operating them, substantially as described, such mechanism, as shown, being the frame D, stem C, tapering plunger B, and the springs *g*, all as set forth.

HENRY MARTYN.

Witnesses:

R. H. EDDY,
J. R. SNOW.