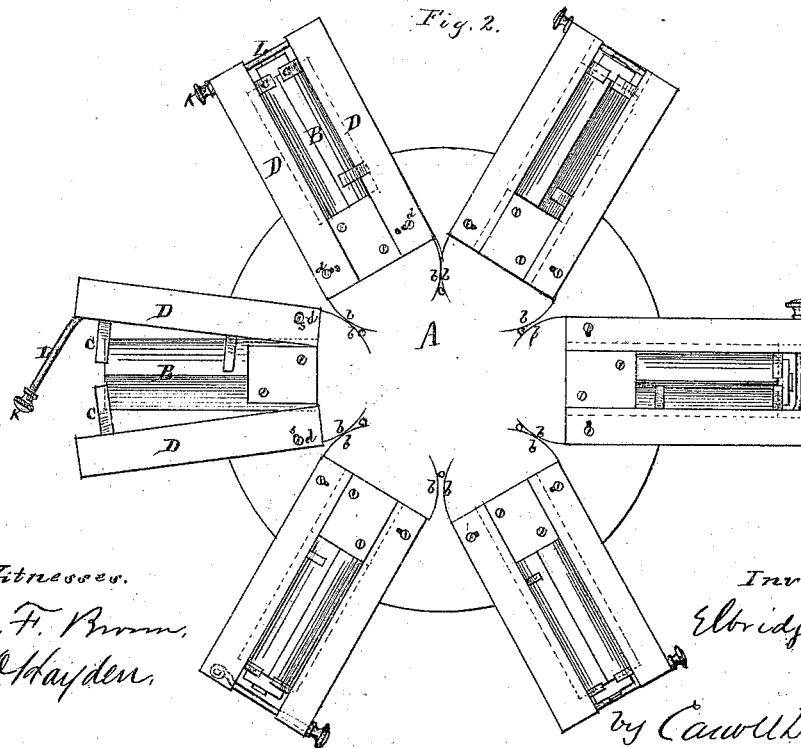
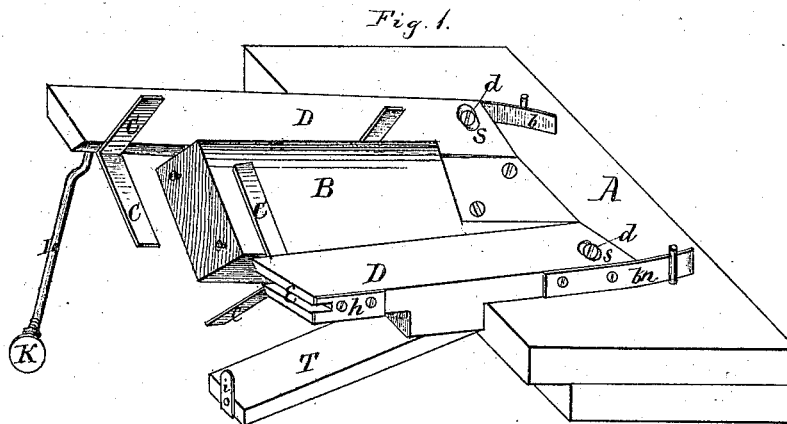
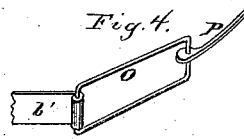
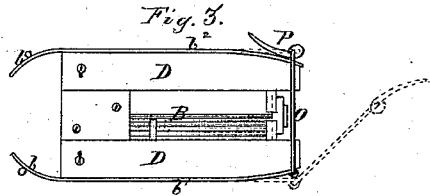


Box Machine.

No. 113238.

Patented Apr. 4, 1871.



Witnesses.

C. F. Brown,
J. A. Hayden.

Inventor:

Elbridge G. Alden

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UNITED STATES PATENT OFFICE.

ELBRIDGE G. ALDEN, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR MAKING BOXES.

Specification forming part of Letters Patent No. 113,238, dated April 4, 1871.

To all whom it may concern:

Be it known that I, ELBRIDGE G. ALDEN, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Machines for Making Lard-Caddies and other Boxes, of which the following is a specification:

Figure 1 represents a perspective view of my invention. Fig. 2 represents several of my machines arranged upon a revolving table; and Figs. 3 and 4 are views of modifications of the same.

This invention relates to machines for making boxes or caddies from thin boards, so that the same may be bent or folded into the required shaped box—round, square, or oval.

My object is to produce a machine by which to greatly facilitate the manufacture of the goods mentioned, when compared with hand manufacture, and to embody simplicity of construction and operation.

The nature of my invention consists in a form or block, upon which the boxes are shaped and held while being glued, and while the glue is setting, and clamps upon two or more sides of the block, the clamps being hinged at the rear end, and held together either by a lever or spring at the point where they are brought to press against the block.

In the drawings, A represents a revolving table. B is a block, which may be of any form desired, and may be hinged to table A, if desired. D D are clamps, pivoted at *d* by means of a slot, *s*, and pin *d*. The clamps or followers D are provided with arms C C. The left clamp is provided with the lever L, while the right clamp is provided with recess *e* and spring *h*. The lever L has a hand-piece, K, which turns by means of a screw-thread upon the lever L. The rear ends of clamps D are held up to the block B by the pressure of springs *b*. Arranged beneath the block B is treadle T, having upon its outer end the gage *i*.

The operation of my invention is as follows: One end of a board of proper size, and secured so as to fold as desired, is held beneath the block B, when, by a pressure from the foot, the treadle T is brought up against the board, holding the same while the operator bends it up over the block B, when, after gluing the lap which comes under the set-off

of the arm C on the right clamp, and placing the bottom of the box against the outer end of block B, where it (the bottom piece) is held by the gage *i*, the clamps D are brought up against the board, and are held firmly by closing the lever L into recess *e* in the right clamp, the handle K holding the lever in position. The block, with the box glued and held upon it, and the bottom piece glued and held in place, is left, and the table revolved until the next machine comes in front of the operator, when the same operation is performed, and by the time the block first used comes round in front of the operator the glue is sufficiently set, and the box may be removed and a new one put on.

In this manner the operation is continually removing glued boxes from, and placing new ones upon, the blocks.

The slots *s* in the rear end of clamps D and the springs *b* perform the office of keeping the clamps close to the block, but yet allow for any unevenness which may exist in the stock of which the boxes are made.

The spring-facing *h* assists the operator in securing a sure pressure of the clamp D to the block B, while, if the pressure is not sufficient, upon turning the hand-piece K as close a pressure as is desired may be obtained.

The form of the block B is variable, according to the style of boxes to be made, while the clamps D, of course, must conform to such variation.

I usually provide the front end of the block B with set-screws, so as to allow for any variation in the thickness of the bottom piece, and to prevent the bottom piece from being glued to the block.

The ends of clamps D may be confined by a link or band, O, as shown in Figs. 3 and 4, the same being attached at one end to spring *b'*, and provided at the other with cam-lever P. In this case the outer ends of clamps D are scarfed or rounded, as shown, and provided with the springs *b*¹ *b*², which may be continuations of springs *b*, and the cam P bearing upon spring *b*² will force the clamps D firmly together.

Instead of a cam for locking the clamps a spring-latch may be employed, operated by any well known means. Instead of table A a wheel may be employed, if desired.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The block or former B, clamps D, provided with arms C, slot S, and spring b, lever L, and treadle or follower T, provided with gage i, all arranged and operating substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELBRIDGE G. ALDEN.

Witnesses:

CARROLL D. WRIGHT,
CHARLES F. BROWN.