(Model.)

M. GARDNER.

BOX OF PLASTIC MATERIAL.

No. 383,175. Patented May 22, 1888.

Fig. 1.

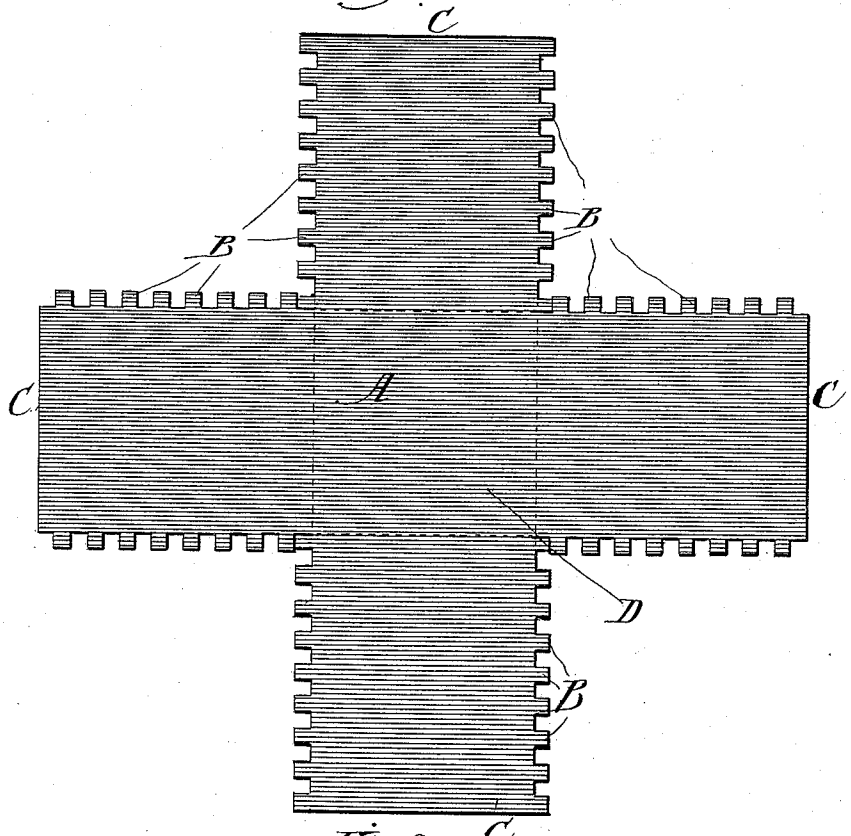
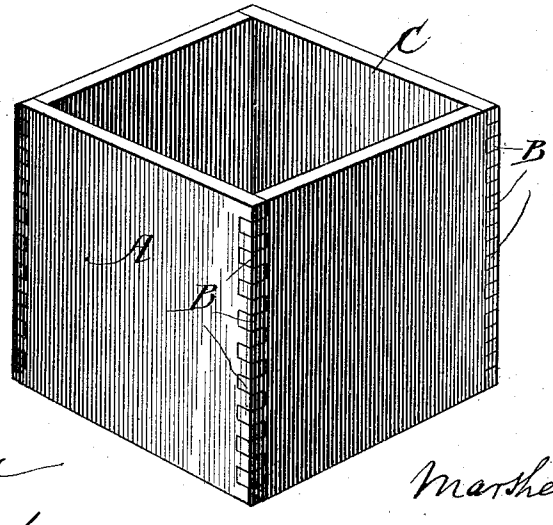


Fig. 2



Witnesses:
Frank J. Blanchard
Fred Gerlach.

Inventor:
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UNITED STATES PATENT OFFICE.

MARSHALL GARDNER, OF AURORA, ILLINOIS, ASSIGNOR OF ONE-HALF TO JAMES STONE, OF SAME PLACE.

BOX OF PLASTIC MATERIAL.

SPECIFICATION forming part of Letters Patent No. 383,175, dated May 22, 1888.

Application filed April 11, 1887. Serial No. 234,464. (Model.)

To all whom it may concern:

Be it known that I, MARSHALL GARDNER, of Aurora, county of Kane, and State of Illinois, have invented certain Improvements in Boxes Made of Plastic Material, of which the following is a specification.

My said invention relates to boxes of plastic material, consisting of a bottom and four sides; and my invention will be hereinafter fully described with reference to the accompanying drawings, in which—

Figure 1 represents a sheet or plate of the material having the requisite qualities out of which a box is to be formed; and Fig. 2, a perspective view of the same after the sides C shall have been raised into vertical positions and their adjoining side edges fitted together around the central part, D, which serves as the bottom of the box.

The sheets A are to be of uniform thickness and of the shape shown in Fig. 1, there being an arm, C, for each of the four sides of the central piece, D, and each arm C is provided on both of its side edges with necks or tenons B, which are so arranged upon each side of the arms with respect to the necks upon the adjacent arms that every neck, when the four arms are brought into vertical position, will enter a recess between two adjacent necks, as shown in Fig. 2. When the four sides shall have been so fitted together, then, by any suitable apparatus operated by hydraulic or other power, the sides and bottom, including the corners and joints, are to be compressed together from without against a proper former placed within the box. The necks or tenons need not be longer than the thickness of the sheet or blank, and the object in forming them and the recesses for them is to increase the contact-surfaces of the material and render more effectual the welding of the parts of the box together by means of the pressure employed, and by reason of the exertion of the pressure the sides and bottom of the box will be made thinner and the tenons shorter, and the joinings of the parts will be almost obliterated, and no other fastenings or means of finishing will be necessary, unless it should be the mere drying of the box or the vulcanizing of the same in case it should be made of soft rubber.

It will be seen that the sides of the box are connected at their edges by a welded mortise-and-tenon joint.

Of course the box will be air and water tight.

The entire blank A, with its necks and recesses, may be cut by a simple die at one operation, and the welding by pressure may be done at another.

What I claim as my invention, and desire to secure by Letters Patent, is—

A box of plastic material, consisting of a bottom and four sides, the sides being connected to each other at their edges by welded mortise-and-tenon joints, substantially as described.

MARSHALL GARDNER.

Witnesses:
WILLIAM STRONG,
MARY PICKERING.