

G. W. SWAN.
Box-Formers.

No. 143,103.

Patented September 23, 1873.

Fig. 1.

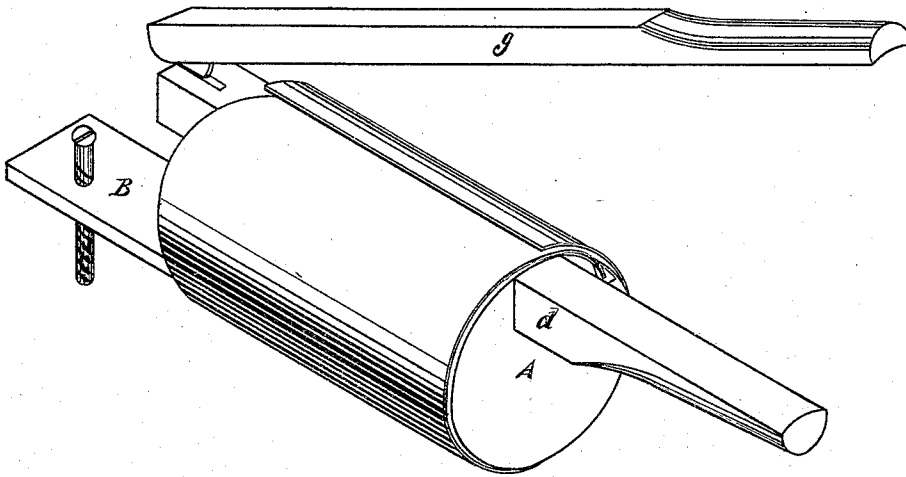


Fig. 2.

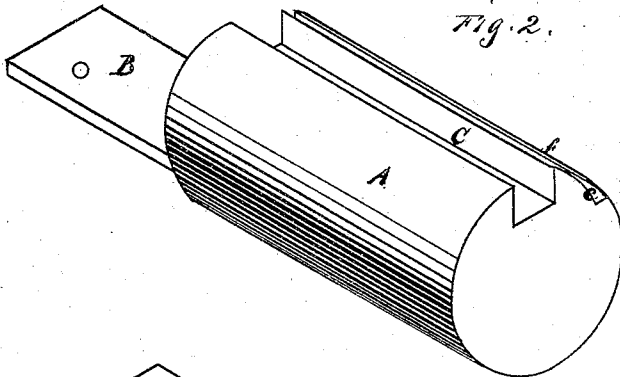
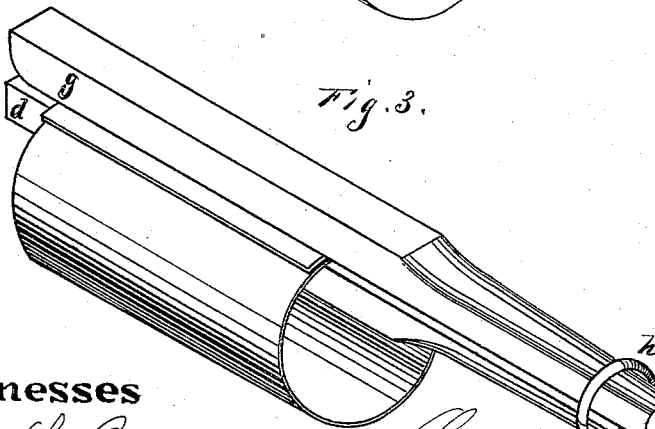


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE

GEORGE W. SWAN, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN BOX-FORMERS.

Specification forming part of Letters Patent No. **143,103**, dated September 23, 1873; application filed July 30, 1873.

To all whom it may concern:

Be it known that I, GEORGE W. SWAN, of San Francisco city and county, State of California, have invented an Improvement in Box-Formers; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to a combined clamp and forming-block to be used in the manufacture of the bodies of boxes, kegs, and like containing vessels which are made out of veneers, paper, and other pliable substances.

In order to properly describe my improvements, reference is had to the accompanying drawings, in which—

Figure 1 is a perspective view of my block with its clamp and veneer bent upon it. Fig. 2 is a view of the block alone. Fig. 3 is a view of the clamped veneer removed from the block.

A is a block, which may be circular, square, or any other desired shape, according to the form of the body of the boxes or kegs to be made. A tail-piece, B, extends from one end of the block, and serves as a means of fastening the forming-block to a table, bench, or other support, so that it will project from the bench or support in a convenient manner to permit the veneer to be wrapped around it. Longitudinally along the upper side of the block A I make a channel or groove, C, of the proper depth and width to admit the jaw *d* of a clamp. At one side of the groove C I prefer to form an angular channel, *e*, which may be done by cutting away an angular portion along the edge of the channel, and partially covering it by a plate, *f*, which is fastened to the block. The clamp consists of two jaws, *d g*, hinged together at one end and provided with suitable handles at the opposite end. The jaw *d* (as above mentioned) slides easily in the channel or groove C, and has its upper surface curved (if a circular forming-block is used) to accommodate the convexity of the block. The opposing face of the jaw *g* is concaved to fit the convexity of the jaw *d*.

A ring, *h*, or other suitable fastening can be used to hold the jaws together, when desired, the ring being slipped upon the handles, which are tapering.

To form a veneer the jaw *d* of the clamp is placed in the channel C and the jaw *g* turned back out of the way. One end of a veneer is then inserted in the angular channel *e*, so that it will be caught by the plate *f*. The veneer is then pressed around the block with the hand until the edges overlap, and a complete body is formed. If the edges of the veneer are to be held together by an adhesive substance, the substance is applied before the edges are brought together, after which the jaw *g* of the clamp is brought down upon the overlapping edges and secured by the ring *h* or other fastening. Now, by drawing upon the clamp the veneer body thus formed will be drawn off from the forming-block, the clamping-jaw *d* drawing out of its seat, when the body can be laid away to dry.

As many clamps will be required as will keep a supply on hand while the adhesive substance is drying.

When the edges of the veneers are to be secured together with tacks or nails, only one clamp will be required for any number of boxes. In this case a metal plate should be secured to the block A on the edge of the channel C opposite the angular recess, and the edges of the veneers overlapped far enough to permit the edges to be tacked over the plate. By this means the tacks are clinched on the under side.

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

The block A with its tail-piece B, and having the longitudinal channel C, in combination with the clamp having the two jaws *d g* and ring *h*, or equivalent fastening, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

GEORGE W. SWAN. [L. S.]

Witnesses:

JOHN L. BOONE,
C. M. RICHARDSON.