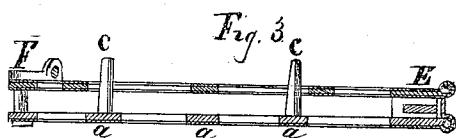
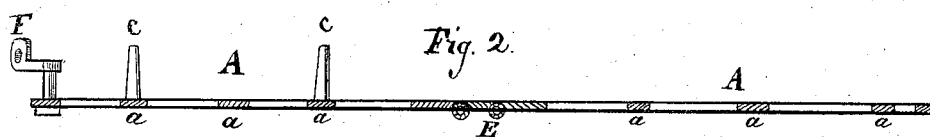
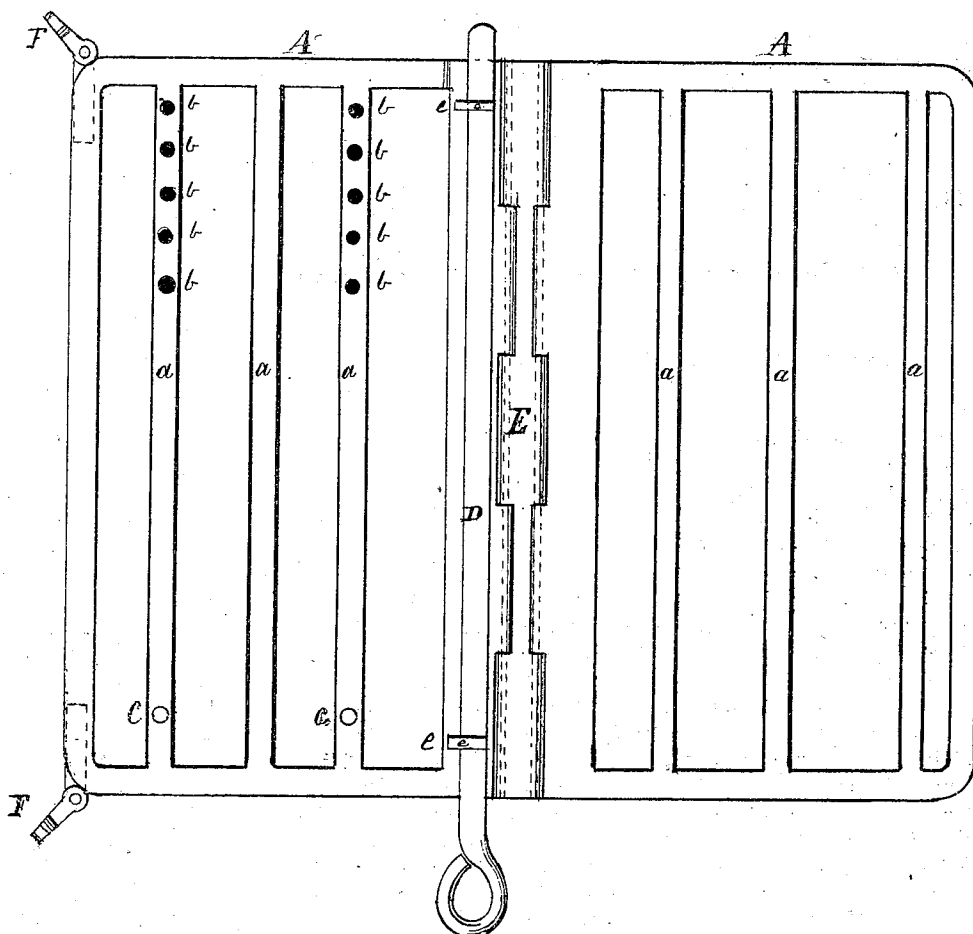


W. F. TILLINGHAST.
Frames for Making Straw-Envelopes for Bottles.
 No. 136,394. Patented March 4, 1873.

Fig. 1.



Witnesses
A. L. Bonnell
Edmund Morris

Inventor.
Wm. F. Tillinghast

UNITED STATES PATENT OFFICE.

WILLIAM F. TILLINGHAST, OF BURLINGTON, NEW JERSEY.

IMPROVEMENT IN FRAMES FOR MAKING STRAW ENVELOPES FOR BOTTLES.

Specification forming part of Letters Patent No. 136,394, dated March 4, 1873.

To all whom it may concern:

Be it known that I, WILLIAM F. TILLINGHAST, of Burlington, New Jersey, have invented certain Improvements in Straw Covers or Envelopes for Bottles, of which the following is a specification:

This invention is intended to facilitate the manufacturing of straw covers or envelopes for bottles to prevent breakage when packed for transportation.

Figure 1 represents an open frame of light metal, A A, having three or more bars, *a a*, running across it from one side to the other in each half of the frame. Two of the bars on the left-hand end contain holes *b b* for receiving movable pins. At *c c* the same bars have two stationary pins. By inserting movable pins in two of the holes first mentioned the width of the intended envelope is regulated, as I can thus at pleasure increase or lessen the distance between the stationary pins *c c* and those that are movable. Having covered the frame with straw between the pins *c c*, and the movable ones set up where they may be needed, the straw being placed lengthwise of the frame, I place on the straw a flat metal bar, D, which slips under the two staples *c c* set in the frame, and open at their ends to receive the bar. The bar holds the straw firmly down on the frame. The right-hand half of the frame is now turned over on the other

half by means of the double hinge E, which is in the center of the frame; but the cross-bars *a a* do not antagonize. By this operation the straw covering one half of the frame is turned over on that contained on the other half, and is also neatly broken into a uniform edge over the bar D. The two halves of the frame are then held together by means of the turn-screws or turn-buckles F F on the corners of the left-hand end of the frame. The straw thus held in position is then sewed between the cross-bars either by machine or any other convenient process. The frame is then opened, the bar D withdrawn, the straw mat taken from the frame, and the two edges tied together, thus forming a cylindrical envelope, which is afterward tied at the top, the top trimmed, and it is then ready for use.

Fig. 2 is a section of the frame when spread open and ready to receive the straw. Fig. 3 is a section when shut up and fastened by the turn-buckles.

I claim as my invention—

The hinged frames A A with bars *a a*, holes *b b*, and pins *c c*, in combination with the bar D and buckles F, as and for the purpose specified.

WM. F. TILLINGHAST.

Witnesses:

EDMUND MORRIS,
J. L. POWELL.