

No. 657,197.

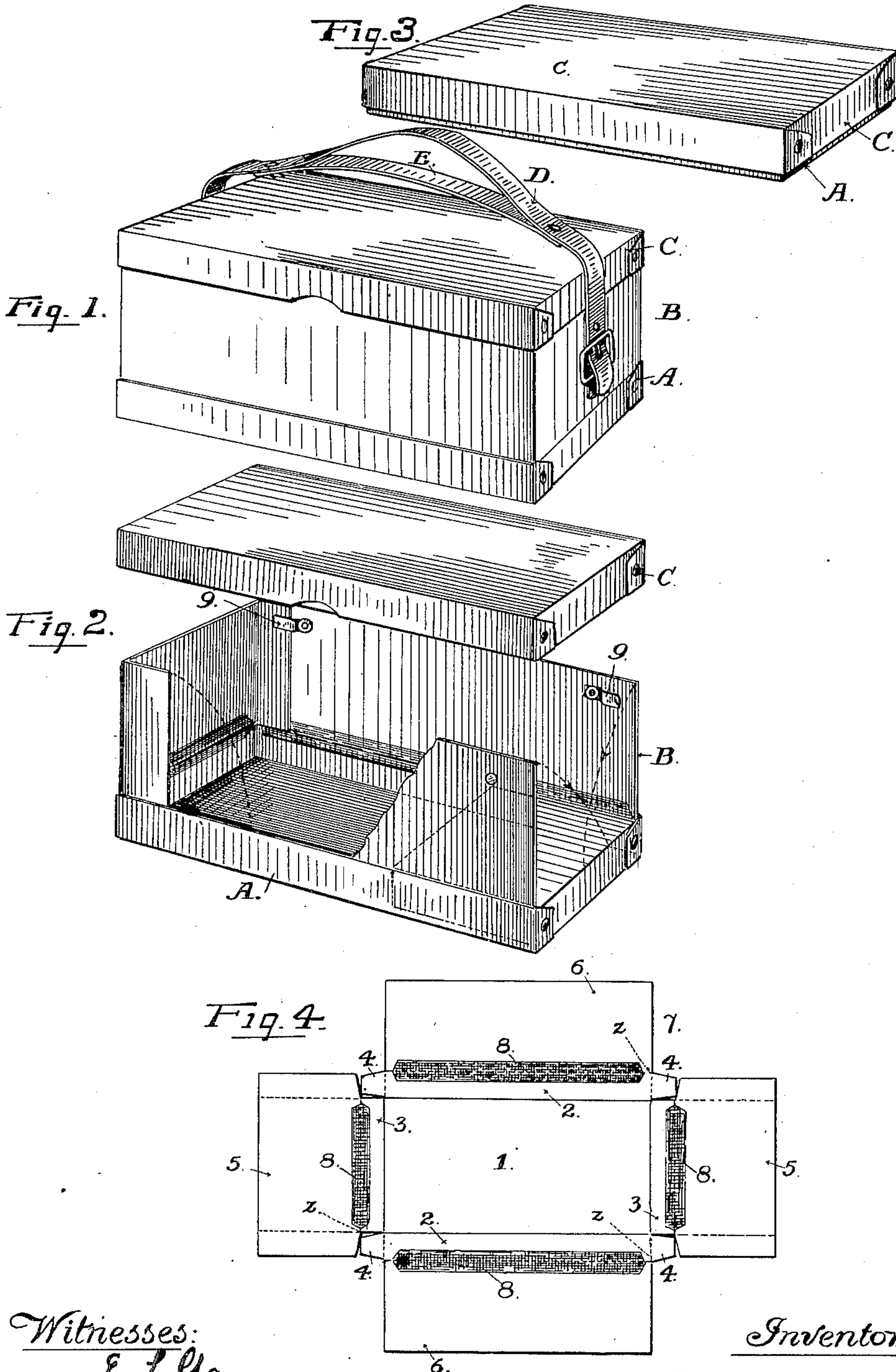
Patented Sept. 4. 1900.

L. J. HILLS.  
COLLAPSIBLE LUNCH BOX.

(Application filed Jan. 11, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 5.

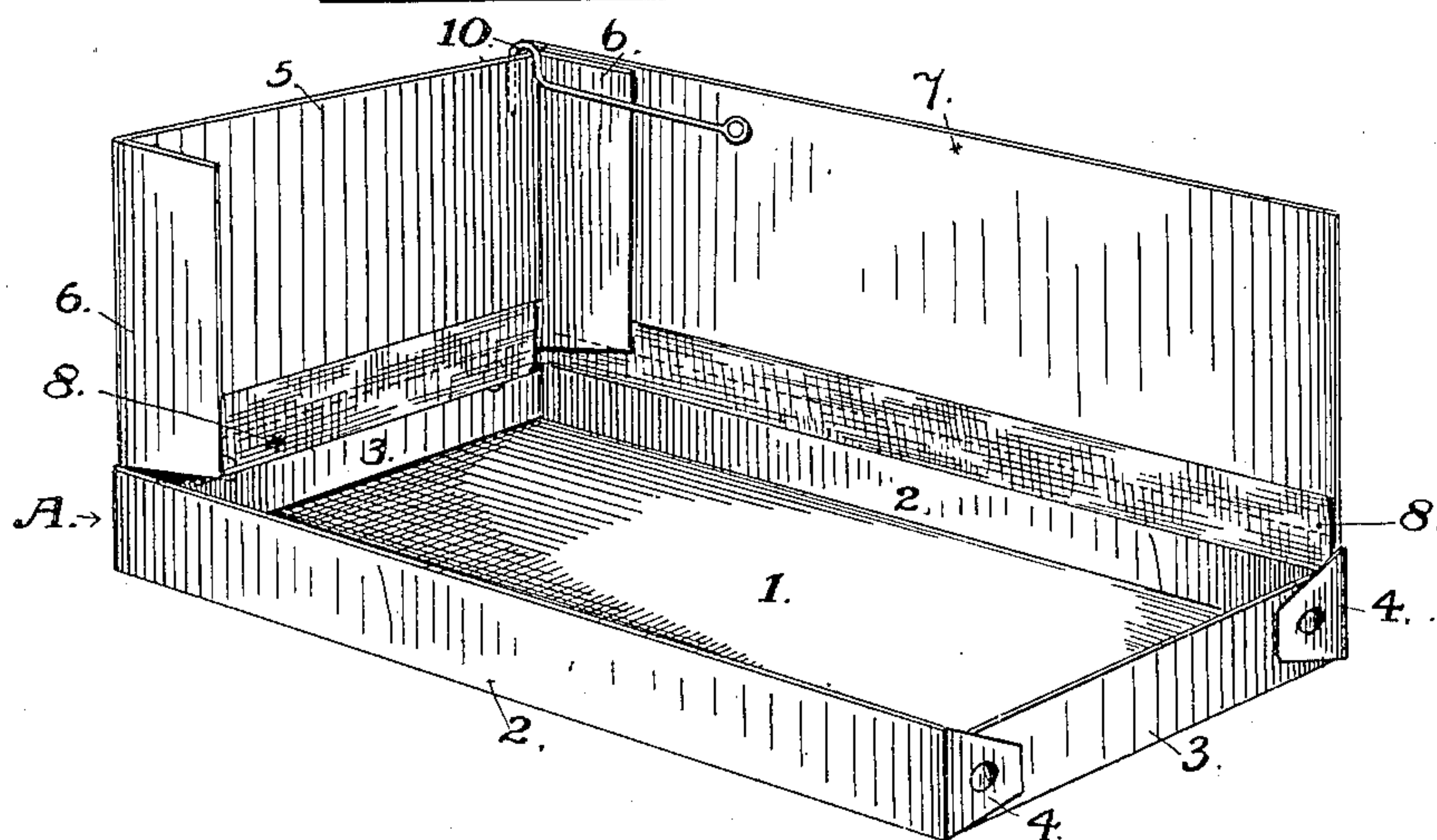
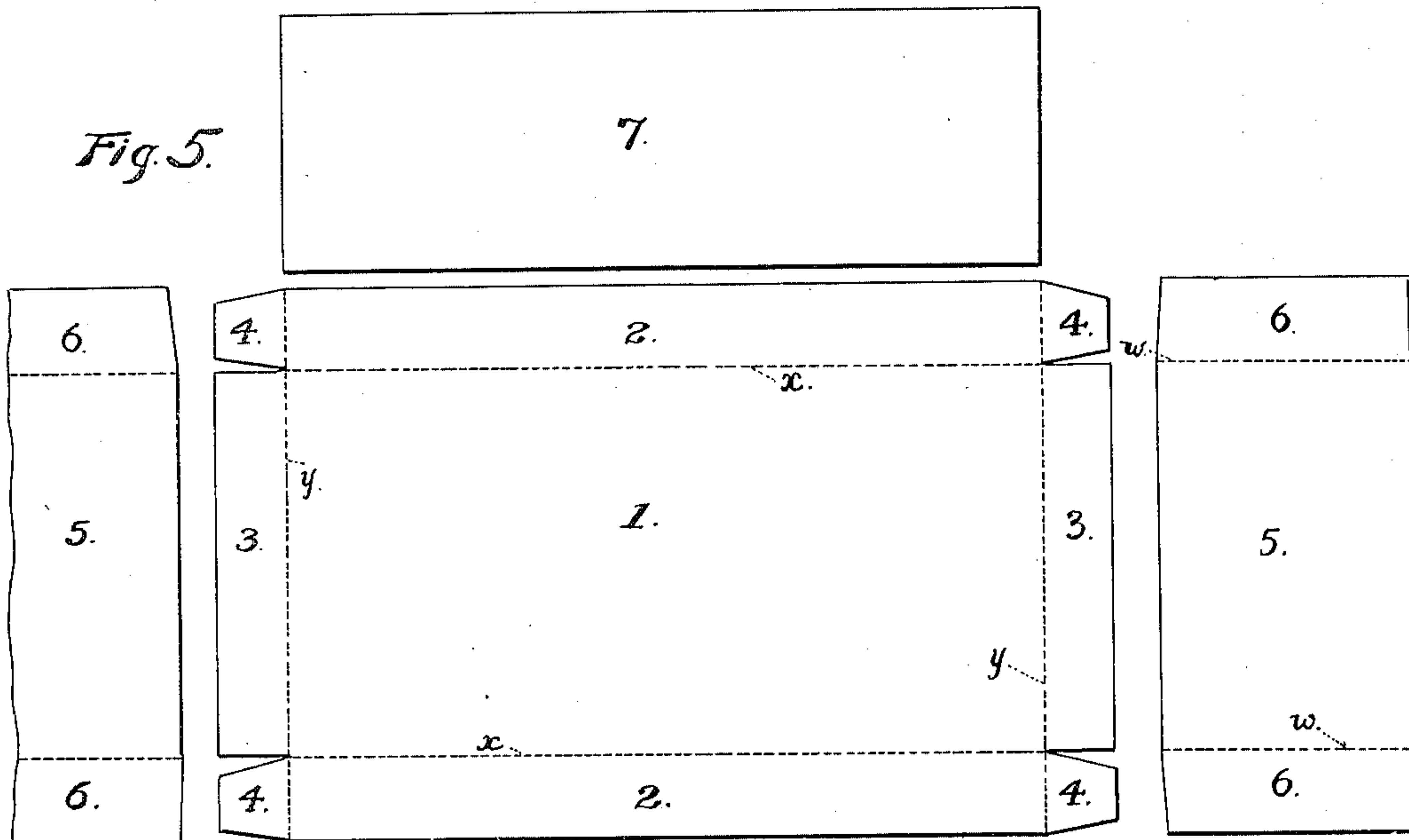


Fig. 6.

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# UNITED STATES PATENT OFFICE.

LAWRENCE J. HILLS, OF FRUITVALE, CALIFORNIA.

## COLLAPSIBLE LUNCH-BOX.

SPECIFICATION forming part of Letters Patent No. 657,197, dated September 4, 1900.

Application filed January 11, 1900. Serial No. 1,057. (No model.)

*To all whom it may concern:*

Be it known that I, LAWRENCE J. HILLS, a citizen of the United States, residing in Fruitvale, in the county of Alameda and State of California, have invented new and useful Improvements in Collapsible Lunch-Boxes, of which the following is a specification.

This invention relates to improvements made in boxes that are constructed to be folded or brought into small compass and compact form, so as to occupy when empty a considerably-less cubical space than when expanded and filled.

The invention has for its object mainly the production of a collapsible box having several advantages with respect to lightness, strength, and low cost of manufacture and one that by reason of its structure is specially adapted for use as a lunch-box by the clerk, student, and professional man.

To such end and object my said invention consists in a collapsible box consisting of a tray-bottom, foldable ends and sides attached to the standing sides of the tray, fastening devices for securing the foldable ends and sides together in upright position, and a cover having a deep rim, and also in a box-blank of novel form in which the parts of the tray-bottom and the standing sides and ends are cut or produced from a single piece of material.

The following description explains at length the nature of this invention and the manner in which I proceed to form or produce the box-blank and construct the box therefrom, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a view in perspective of a lunch-box produced in accordance with my invention, showing the box in its expanded form with the cover on. Fig. 2 is a perspective view of the box with one end folded down and the cover removed, the nearer side of the box being broken away to show the bottom. Fig. 3 shows the box collapsed and folded for the pocket. Fig. 4 is a plan of the body laid out flat. Fig. 5 is a plan of the blank from which the complete body is produced. Fig. 6 is a perspective view of the body with one side and end removed.

The complete box consists of the tray-bottom A, standing sides and ends B, and a cover C.

A strap D E furnishes both a means of holding on the cover and a handle for carrying the box.

The tray-bottom and the sides and ends constituting the body of the box are produced by cutting a blank to the shape and outline shown in Figs. 4 and 5, so as to form the rectangular bottom 1 with the low standing sides and ends 2 2 3 3 and the short flaps 4 4 on the ends of the standing sides of the bottom, these parts being scored or creased on the lines  $x y$ , so as to bend squarely or at right angles to the bottom and form permanently-standing rims all around. The standing ends 5 5 and the sides 7 7 are practically continuations or extensions of the permanently-standing sides and ends of the tray, to which they are united by hinged joints 8 8, so as to fold down upon or over the bottom. When cut in one piece with the other parts of the body-blank, these sides and ends are partly separated from the sides and ends of the tray by scoring or cutting partially through the material on the lines  $z z$ , or the pieces 5 and 7 can be cut out separately from the tray-blank and afterward united to that part by strips of muslin to form the hinges 8 8. Wings or flaps 6, provided on the sides of the end pieces 5, are bent inwardly to stand at right angles and lie against the side pieces 7, so as to form a closed joint at the angles or corners of the box when the sides 7 and ends 5 are set upright. The pieces 6 are cut from the material integral with the ends 5. They are bent on the lines  $w w$ , so as to stand stiffly at right angles, and are about equal in breadth to the height of the rim of the tray, so as to rest on the bottom of that part when they are folded down, thereby supporting the end pieces 5 when in that folded position and materially strengthening the parts of the box when in the folded state.

The tray-bottom is formed by bending up the side pieces 2 2 and end pieces 3 3 and fastening them together by rivets inserted through the flaps 4, which are bent over upon the end pieces 3.

The cover C is formed from a blank cut the same as the part that forms the tray A, with the exception that the cover is made somewhat larger in length and breadth than the tray in order to fit over that part when



the box is folded and brought into the compact form illustrated in Fig. 3 of the drawings.

To prevent the standing ends from yielding inwardly under pressure from the outside, a metal clip 9 is secured on the inside of the standing side 7 near the end, so as to receive and form a stop for the flap 6 when that part is brought into position against the standing side.

Another form of fastening device for the standing ends is shown in Fig. 6, consisting of a hook 10, attached to the standing side at 12 by a loose joint and shaped at the free end to fit over the edge of the end piece 5. This fastening has the advantage over the other device 9 of holding the end piece against pressure from within as well as from the outside of the box.

When the strap D E is required, it is secured by a rivet to the end piece 5 and is provided with holes on the part near the other end to take through a buckle, which is fastened by a rivet to the outside of the opposite end piece 5, as shown in Fig. 1. A handle portion is formed by fastening a short bridge-piece E on the inner face of the strap, so as to hold the center portion in a loop, as illustrated in Fig. 1. When the box is folded, this strap will lie within the tray-bottom under the folded-down ends and sides, and thus allow the cover C to fit down closely over the tray.

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

1. A collapsible box comprising a tray-bottom having a standing rim, foldable sides and ends attached to the standing rim by hinge-

joints to fold into the tray-bottom, means for fastening the sides and ends together in upright position at their meeting angles, and a cover having a rim adapted to fit over the sides and ends of the body.

2. A collapsible box comprising a bottom having a standing rim, foldable side pieces and end pieces forming perpendicular extensions of the sides and ends of the standing rim and adapted to fold down into the said bottom, means for fastening the said side pieces and end pieces together at the corners in upright position, and a cover having a rim adapted to fit over the sides and ends.

3. A collapsible box comprising a bottom having a permanent standing rim, foldable side pieces and end pieces attached to the standing rim by joints which allow said pieces to fold down into the bottom, rigid wings on the end pieces standing at right angles thereto, means for detachably fastening the side pieces and end pieces together at the meeting angles when in upright position, and a cover having a deep rim adapted to fit over the standing rim of the bottom when the sides and ends are folded into the rim.

4. A blank for forming a collapsible box-body, consisting of the bottom 1, sides and ends 2 2, 3 3 forming a standing rim to the bottom, the flaps 4, side pieces 7 7 and end pieces 8 8, having wings or lateral extensions 6 6.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

LAWRENCE J. HILLS. [L. S.]

Witnesses:

M. REGNER,

EDWARD E. OSBORN.