(No Model.)

H. H. KINSEY.

COLLAPSIBLE BOX.

No. 602,290. Patented Apr. 12, 1898.

Fig. 1.

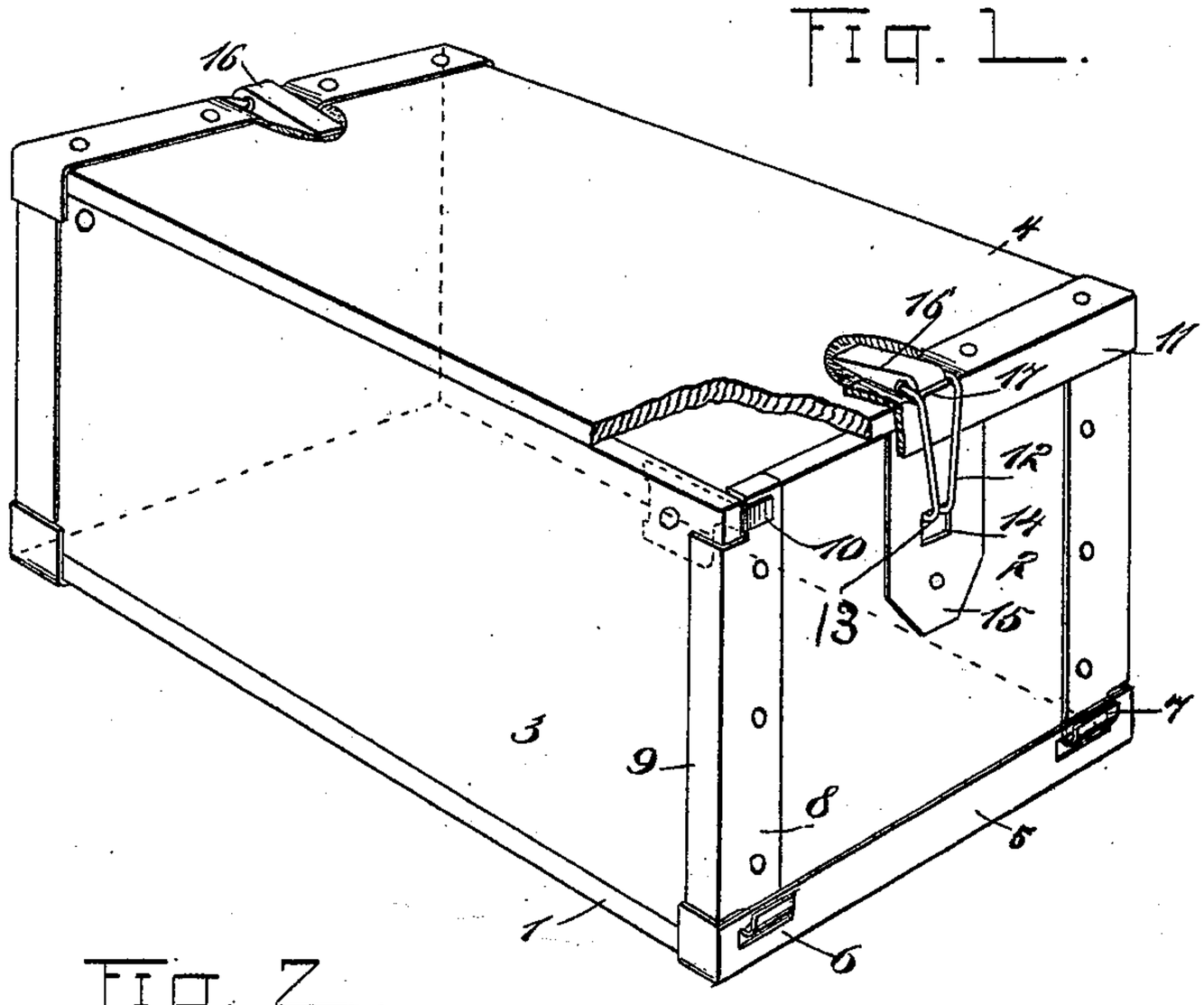


Fig. 2.

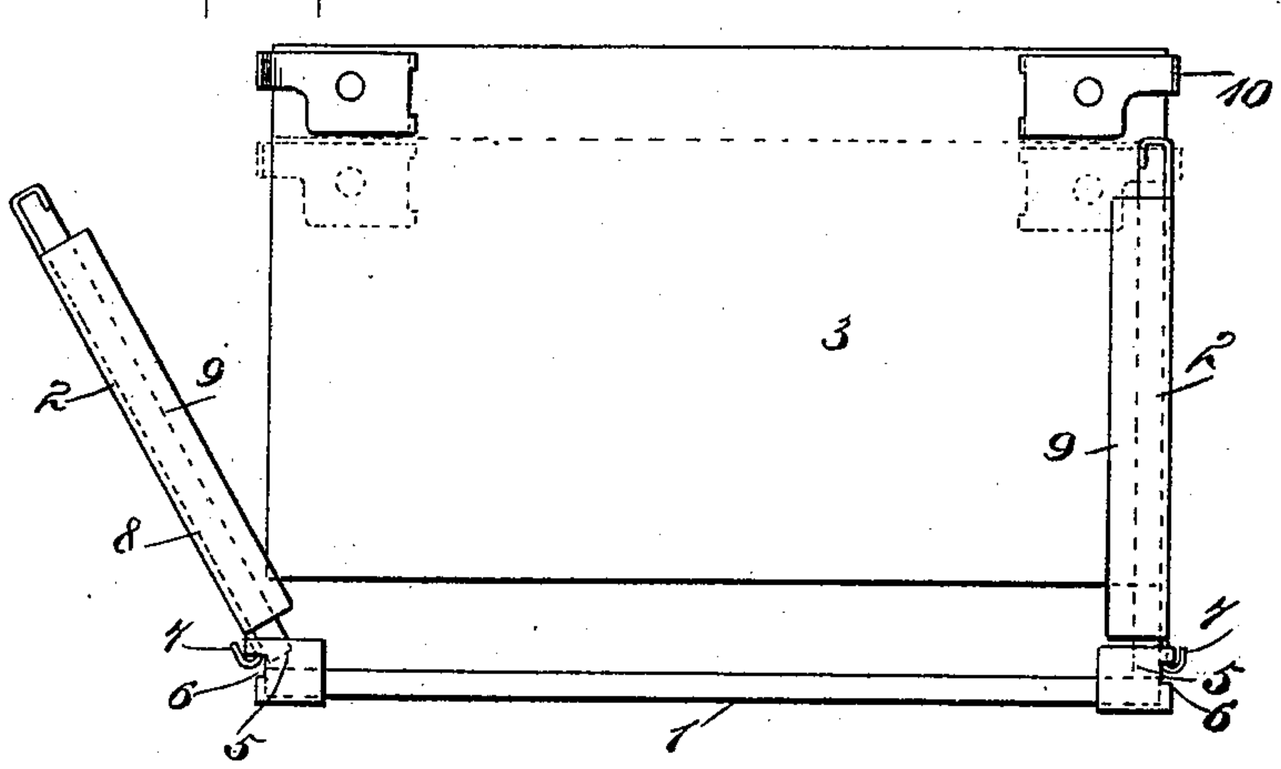
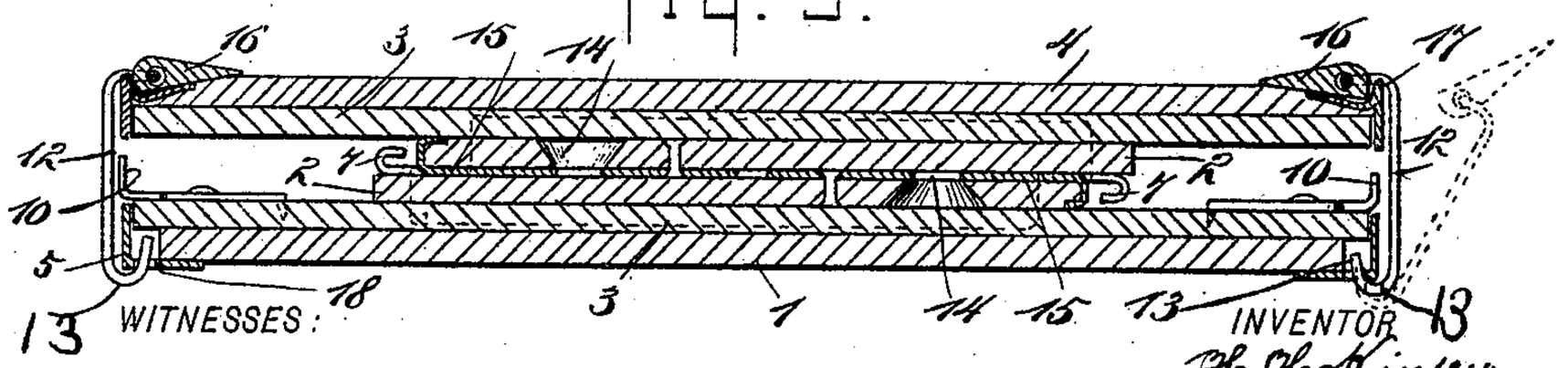


Fig. 3.



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HENRY H. KINSEY, OF SHOSHONE, IDAHO.

COLLAPSIBLE BOX.

SPECIFICATION forming part of Letters Patent No. 602,290, dated April 12, 1898.

Application filed May 7, 1897. Serial No. 635,454. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. KINSEY, of Shoshone, in the county of Lincoln and State of Idaho, have invented new and useful Improvements in Collapsible Boxes, of which the following is a full, clear, and exact description.

This invention relates to boxes of the collapsible or "knockdown" type employed for shipping or other purposes, the object being to provide such a box for the transportation of goods—such as eggs, bottled milk, crackers, &c.—and which may, if desired, be converted into use for household purposes, such as a cupboard or bookcase, and which when employed for shipping purposes may be folded and securely fastened together in a compact manner for reshipment at a consequently reduced freight rate.

I will describe a collapsible box embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a box embodying my invention. Fig. 2 is a side view of the box, showing the manner of placing it together; and Fig. 3 is a sectional view showing the several sections or members of the box as secured together for reshipment.

The box comprises a bottom board 1, end boards 2, side boards 3, and a top board 4. The bottom board is provided on its opposite ends with flanged portions 5, of suitable metal. The flanged portions 5 are provided with slots 6, which receive hooks 7 on the lower ends of the metal corner-plates 8, attached to the end boards of the box. These corner-plates 8 are extended somewhat beyond the ends of the end boards and are provided with return-flanges 9, the space between which and the ends of the end boards forms slideways for the ends of the side boards 3. These side boards 3 at their ends, near the upper edge, will be provided with hooks 10, adapted to engage against the outer side of the corner-plates 8, and it will be seen in Fig. 1 that these corner-plates 8 have a cut-away portion at the upper end, so that the hooks 10 may pass downward into position. The ends of the top board 4 are provided with downwardly-extended flanges 11, of suitable metal, to engage against the outer side of the end boards at the top.

I provide removable fastening devices for securing the top board to the box and also for securing the several parts together when they are assembled for reshipment, as shown in Fig. 3. These fastening devices consist of wire bails 12, having hook portions 13, adapted to engage in openings 14 in metal plates 15, secured to the outer sides of the end boards of the box. The other ends of the wire bails are passed loosely through openings in cam-blocks 16. These cam-blocks are substantially wedge-shaped, and they are designed, when securing the cover to the box, to pass over a shoulder 17, formed at the ends of the top board and having a depression inward of the shoulder. The depression will be sufficiently deep to allow the cam-blocks to lie with their upper surfaces substantially flush with the upper surface of the top board, so as not to interfere with the easy sliding of boxes one upon another.

When assembling the box for shipping purposes, the end boards will be hooked into engagement with the flanges of the bottom board and turned upward. Then the side boards 3 will be slipped into the slideways 9, with the hooks 10 engaging against the outer sides of the end boards, as plainly indicated in Fig. 1. After packing the box the cover will be placed thereon, and then the fastening devices will be hooked into the openings 14, and then, after throwing the head portion of the cam-blocks over the shoulder 17, the said cam-blocks may be turned downwardly to a substantially horizontal position. It is obvious that while in this position the cover will be tightly held upon the box. By pasting or gluing some substance over the end of the cam-wedge the box will be sealed for shipping.

In assembling the parts for reshipment they will of course all be separated and then placed together, as indicated in Fig. 3—that is, one of the side boards will be placed upon the bottom board, the hook being turned upward, the end boards will be placed upon this side board, and then the other side board will be

placed upon the end boards, and then the top board placed upon the side boards. When in this position, the hook portion 13 of the fastening devices will be engaged in holes 18, formed in the flanges 5 of the bottom board. These holes 18 of course will be in the under side of the flanges. The fastening devices will then be turned over and the cam-blocks operated against the shoulder 17, as before described.

It is obvious that a box embodying my construction may be employed for other purposes than that of transportation. For instance, a wagon-box so constructed will be found very convenient, as one man can readily place the box on or remove it from the wagon.

I have described and shown detachable hinge connections between certain parts, but I do not limit my invention thereto, as under certain constructions the end boards or side boards may have ordinary hinge connections.

It is obvious that the box may be made in the form of a crate.

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

1. A collapsible box, comprising a bottom piece, end pieces having detachable hinge connection with the bottom piece, slideways on the end pieces, side pieces adapted for engagement within the slideways, a cover having flanges at its ends to engage over the end pieces, and removable fastening devices for securing the cover in place when the box is formed and also serving to secure the several parts together when assembled for reshipment, substantially as specified.

2. A collapsible box, comprising a bottom board, end boards having detachable hinge connections with said bottom board, corner-plates on said end boards forming slideways, side boards adapted for engagement with their ends in said slideways, hook portions on the ends of said side boards near the top for engaging against the outer sides of the end boards, a cover having flanges at its ends to engage over the outer sides of the end boards, and removable fastening devices for securing the top board in position when the box is formed, and also for securing the several parts of the box together when assembled for reshipment, substantially as specified.

3. A collapsible box, comprising a bottom board, end boards having removable hinged connection therewith, corner-plates on the ends of the end boards forming slideways, side boards having their ends seated in said slideways, a top board having depressions in its upper surface at the ends and shoulders at the outer ends of said depressions, plates on the end boards having openings, wire bails having hook portions to engage in said openings, and substantially wedge-shaped cam-blocks having swinging connection with the wire bails and adapted for engagement with the shoulders, substantially as specified.

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