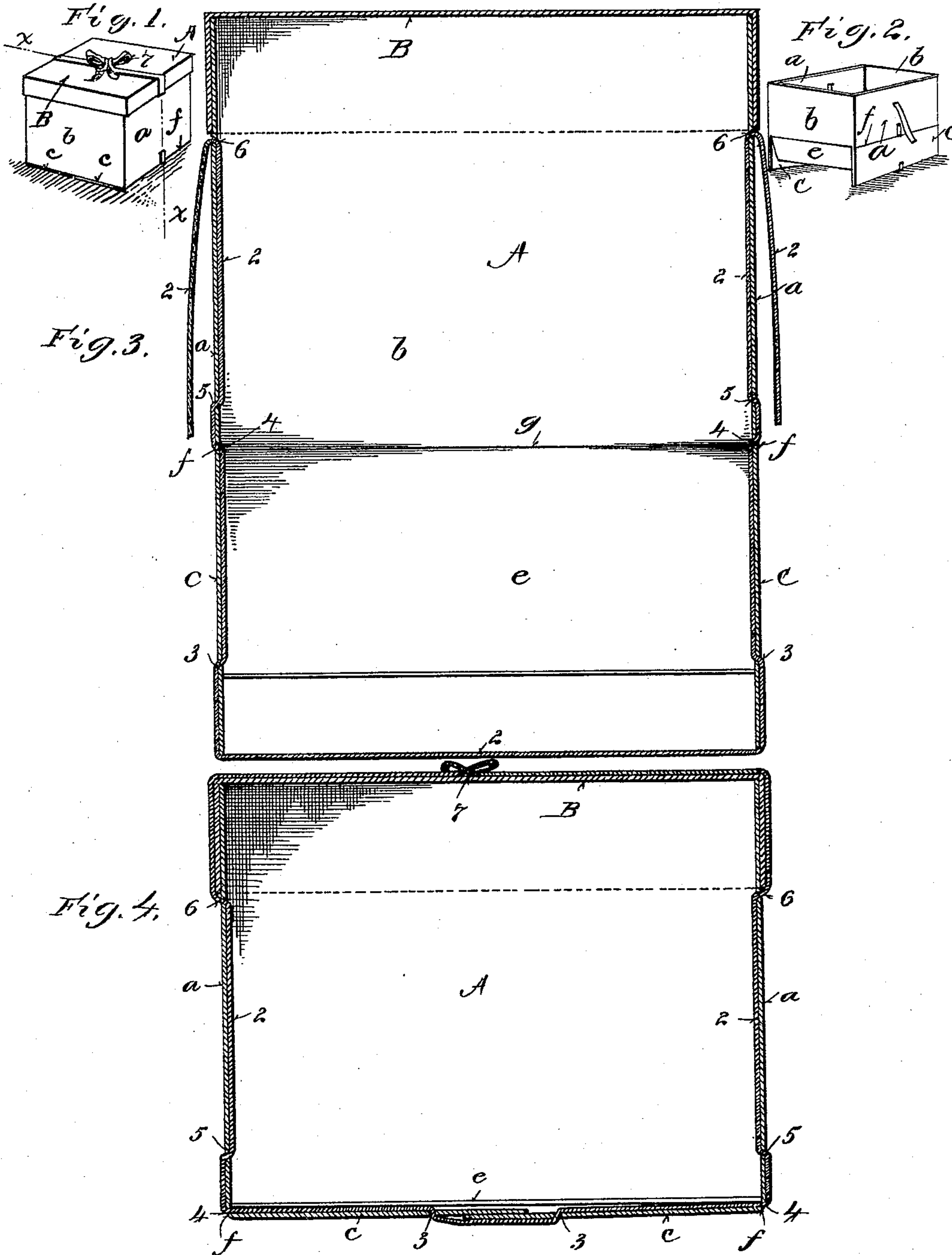


(No Model.)

H. L. R. WOLF.
BOX.

No. 581,051.

Patented Apr. 20, 1897.



Witnesses
Jas. C. Hawley,
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Inventor
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UNITED STATES PATENT OFFICE.

HENRY L. RUDOLPH WOLF, OF DAYTON, OHIO, ASSIGNOR TO THE AULL BROS. PAPER AND BOX COMPANY, OF SAME PLACE.

BOX.

SPECIFICATION forming part of Letters Patent No. 581,051, dated April 20, 1897.

Application filed July 13, 1896. Serial No. 598,928. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. RUDOLPH WOLF, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in collapsible or "knockdown" boxes.

The principal feature of my invention is a combination of overlapped bottom flaps with a cord, tape, or band threaded through openings in such flaps near their overlapped edges and thence through other openings near the connection of the flaps with the sides and thence extended upward along the sides of the box and over the top thereof, a cover being applied to the top and held thereby, as hereinafter more fully described, and particularly pointed out in the claim.

25 In the accompanying drawings, on which like reference letters and numerals indicate corresponding parts, Figure 1 is a perspective view of a box and a cord, tape, or band embodying my invention; Fig. 2, a similar view with the cover removed; Fig. 3, an enlarged vertical sectional view through line *x x* of Fig. 1 with the bottom flaps in a downward position preparatory to folding; and Fig. 4 a like sectional view on the same line with the bottom flaps fully folded.

35 In using the term "bottom" or "bottom flaps" I wish to be understood as including any part of the box or vessel, because what is the bottom in one position of the box might become the top in another position or the side in another, or the end in still another. Therefore when I use the term "bottom" or "bottom flaps" I have in view and mean any or all of these portions of the box or vessel. Accordingly the letter A designates a box or vessel constructed of any suitable material, preferably of pasteboard or heavy paper, and the box has four upright permanently-united sides *a a* and *b b*, an upper open end adapted to be closed by a cover B, and a lower end or 50 bottom composed of flaps *c e*. The flaps *c* fold inward along the line or corner *f* and

overlap one another, as shown, and the flaps *e* fold inward along the line or corner *g*.

In Fig. 1 I show the box or vessel complete with the cover applied. In Fig. 2 I show it 55 with the cover off, the flaps *c* extending down and one of the flaps *e* folded partly inward. In Fig. 3 I show the parts in the position shown in Fig. 2, and in Fig. 4 I show the box complete, as in Fig. 1, except that it is in section instead of perspective. 60

At 2 I show a cord, tape, or band composed of any suitable material. Its function is to hold the bottom flaps in their folded position and to hold the cover on the box. This cord, 65 band, or tape I apply to the box in the following manner—that is to say, I perforate the flaps *c* at the point 3 and insert the cord, band, or tape and extend it along the sides and thence along the inner sides of the flaps, running it out at the points 4, and thence along the outside of the sides *a* and in again at the points 5, and thence along the inside of such sides to the points 6, where I again perforate said sides, and thence extend the cord, band, 75 or tape along the outside of the cover over and across the same, where I secure it, as by tying a knot, as shown at 7. Before this latter is done the cover is of course applied.

In Fig. 3 the ends of the cord, band, or tape 80 are left to be secured as it may be desired or to be carried over the cover.

Thus it will be seen that I have provided a very simple and effective means of securing and supporting the bottom flaps of a collapsible box or vessel having permanently-united sides, as stated above. The folding of this vessel into a flat form for shipment is permitted by sufficiently loosening the cord, band, or tape, and the cover is usually slipped 90 inside of the box when in this folded or knockdown position; but the details of the folding and knocking down do not enter into my invention, as they will vary with different collapsible boxes or vessels having such 95 united sides.

I am aware that it is not new to construct paper boxes with cords for holding the bottom in position. While this is old, generally speaking, my improvement consists in a novel 100 arrangement of two of the flaps, being overlapped at their inner edges, in connection

with a novel arrangement or threading of the cord or tape relatively to such overlapped flaps, so that both of them shall be secured by the cord or tape, a construction which has
5 been found in practical use to be very effective in securing the structure, which features are particularly pointed out in my claim hereinafter.

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

A box or vessel comprising permanently-united sides with an open upper end, and flaps to form the bottom, the two opposite flaps
15 folding over the other two flaps and overlapping each other at their edges when fully

folded, said overlapping flaps having perforations at the points designated 3 and 4, and a tape or cord lying outside of the overlapped portions of the flaps, thence running inward 20 through the perforations at 3 and along the inside of said flaps and out through the perforations at 4, and thence along opposite sides of the box, a cover fitted upon the upper end of the box, and the tape or cord carried over 25 the cover and secured.

In testimony whereof I affix my signature in presence of two witnesses.

H. L. RUDOLPH WOLF.

Witnesses:

FRANK S. BREENE,
B. F. HENLUY.