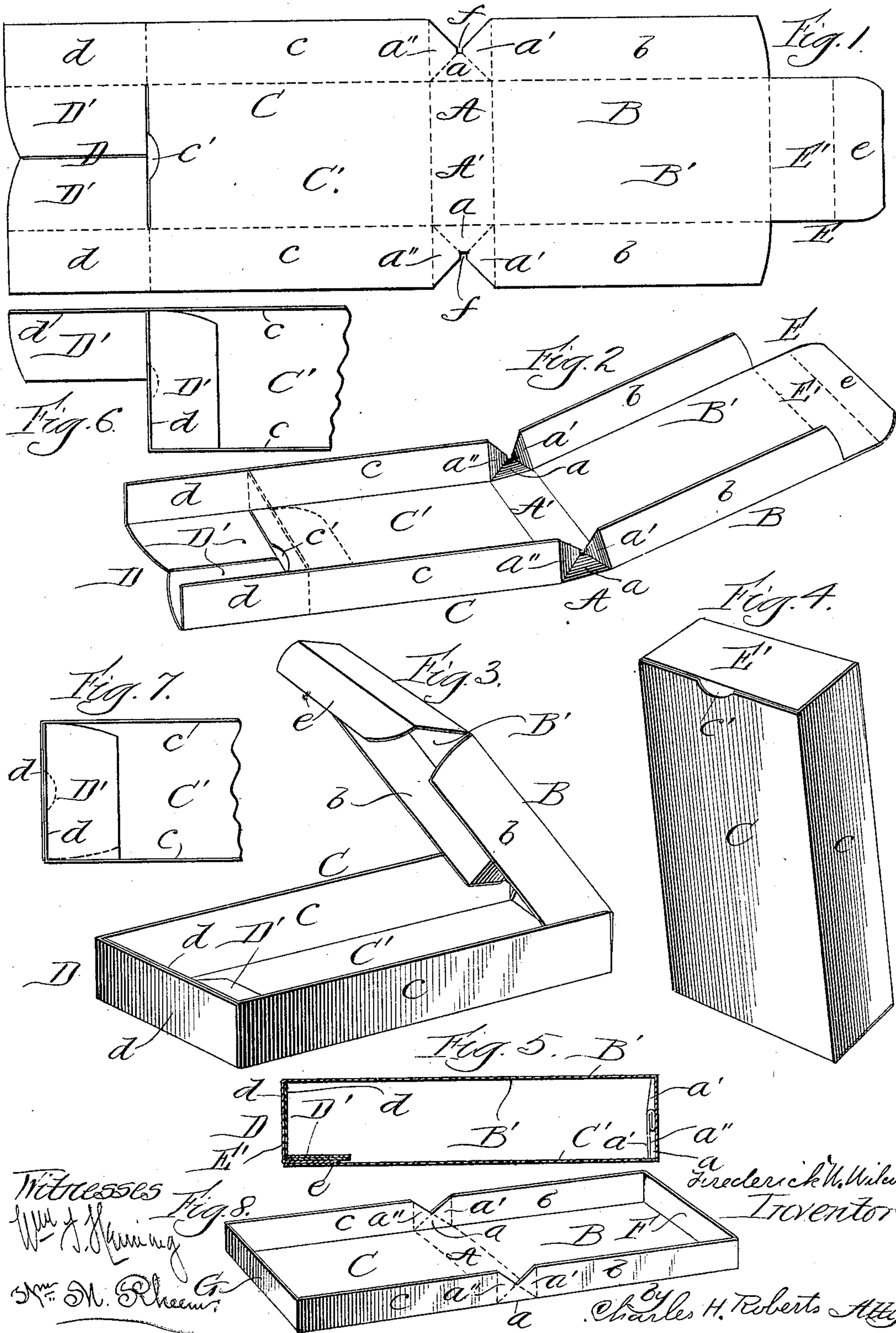


(No Model.)

F. W. WILCOX.
FOLDING BOX.

No. 584,974.

Patented June 22, 1897.



UNITED STATES PATENT OFFICE.

FREDERICK WEEKS WILCOX, OF CHICAGO, ILLINOIS.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 584,974, dated June 22, 1897.

Application filed June 25, 1896. Serial No. 596,825. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK WEEKS WILCOX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Folding Boxes, of which the following is a specification.

My invention relates to improvements in folding boxes in which the blank is cut in one piece from Manila paper or other suitable material.

The objects of my improvement are to provide a box for general use and also to serve as an envelop for books, photographs, druggists' specialties, and package goods in general, and also of special use as a hinged display-box for the display of samples of coffee, small grains, and similar substances, the hinge having a wall at the sides to prevent overflow of the contents; also, to provide a box for other purposes having a walled resilient or self-opening hinge and reinforced opposite ends, forming a double-tuck pocket by which to lock the box. I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the folding box, showing the shape of the blank as cut from the stock and also the parts or panels into which it is cut or creased. Fig. 2 is a perspective view showing the operation of the hinge as it begins to close. Fig. 3 is another perspective view showing the box with its end D adjusted and with the lid B closing down into it. Fig. 4 shows the box closed with the end locked by the end flap *e* being tucked into the pocket H. Fig. 5 is a horizontal section. Fig. 6 is a section showing the end D partly folded. Fig. 7 is a section of the end D, showing the operation of the braces D'. Fig. 8 is a modification showing a coffee-grain or merchandise-display box with closed ends and the walled resilient hinge.

Similar letters refer to similar parts throughout the several views.

The blank is cut in a single piece from the manila or other stock in the shape and creased as shown in Fig. 1. Manila paper is preferably used, but any material having the necessary flexibility or resiliency may be employed. The dotted lines in Fig. 1 show where the blank is lightly creased to mark

the lines of folding, while the heavy lines, as between D' and D' and D' and C, show where the blank is cut through.

A feature of my device is a resilient side-walled hinge, and this is secured by notching the blank with a V-shaped notch at near the middle and creasing it entirely across at the outer edges of the notches, and also carrying creases from the lower point of the V-shaped notches to meet the creases forming the edges of the top and bottom of the box.

Any other efficient hinge may be used, if preferred, with my lock hereinafter described and also with my pocket hereinafter described.

In bringing the box sides together the parts or panels *a* on opposite sides of the box fall inward and approach each other and when closed lie parallel with and upon the bottom panel A'. The parts *a'* and *a''* on each side of the box pass each other and then fold down on each other as the box is closing, forming a triplicate stay to strengthen the end of the box. The resistance of the Manila-paper stock to this folding affords a resilience which tends to open the box, while the V-shaped notch, being cut but part way down on the side, as shown in Figs. 1, 2, and 8, allows the uncut part to form a wall when the box is open to retain the contents.

When the paper is heavy and is liable to ball or bunch at the apex or point of the V-shaped notch, thus making the resistance too great, a portion may be cut out from each of the converging apexes of the triangular panels *a*, *a'*, and *a''*, as shown at *f* in Fig. 1, but for ordinary material the hinge is used without the removal of the part and as shown at Fig. 8.

In the construction of the end D the two parts, each marked D' *d*, separated by creases, fold together, overlapping each other, forming a duplicate pocket as well as a duplex cover.

The inner edges of the panels D' lie parallel with the side wall *c* and against it for its full width, except that the corner is sometimes slightly rounded, forming a duplex stay staying the bottom from both sides and also from side to side. The panels D' when closed reinforce the bottom C', also forming part of the duplicate pocket before mentioned.

Where the reinforcement of the box end is

unnecessary, as in light boxes, and wherever stays are unnecessary, the lock and pocket, or either, may still be used by omitting the stays D' and folding inward the panels d , as before.

- 5 For the purpose of affording a shoulder behind which the part e may be tucked the part d need not reach entirely across the end of the box, but should extend far enough to afford an effective shoulder, behind which the
10 lip e may be tucked to lock the box.

When the box is closed and locked, as in Fig. 4, the part e , being tucked into the pocket H , prevents opening of the box, and thus is formed a box from a single piece of material
15 possessing the advantages mentioned, possessing smooth outer faces, and being well stayed and securely locked, all without glue, rivets, or other fastening except the combination of the parts.

- 20 What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a folding box having two parts which fold together, a lock for the box, formed by the end panels d , d , with their attached stays
25 D' , D' , on one of the folding parts, said stays

being adapted to fold one upon the other inside of and against its back or bottom, and the flap e , on the other folding part, adapted to be tucked between said duplicate stays and said back or bottom to lock the box. 30

2. In a box of paper or other flexible material, a pocket to receive a fastening flap, or tongue, said pocket being formed of the duplex panels d , D' and d , D' the bottom C' and sides c , c , substantially as described and
35 shown.

3. In a folding box formed of flexible material and provided with the herein-described hinge of the same material having a V-shaped notch, a second notch f at the bottom of the
40 V-shaped notch, said notch f , being formed by cutting off the converging apexes of the triangular panels a , a' , and a'' of said hinge, substantially as described and shown.

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

FREDERICK WEEKS WILCOX.

Witnesses:

WILLIAM FRIEDMAN,
MARK C. FARR.