R. R. RICHARDSON.

FOLDING PAPER BOX.

APPLICATION FILED AUG. 18, 1917.

1,301,171.

Patented Apr. 22, 1919.

2 SHEETS—SHEET 1.

Fig. 1

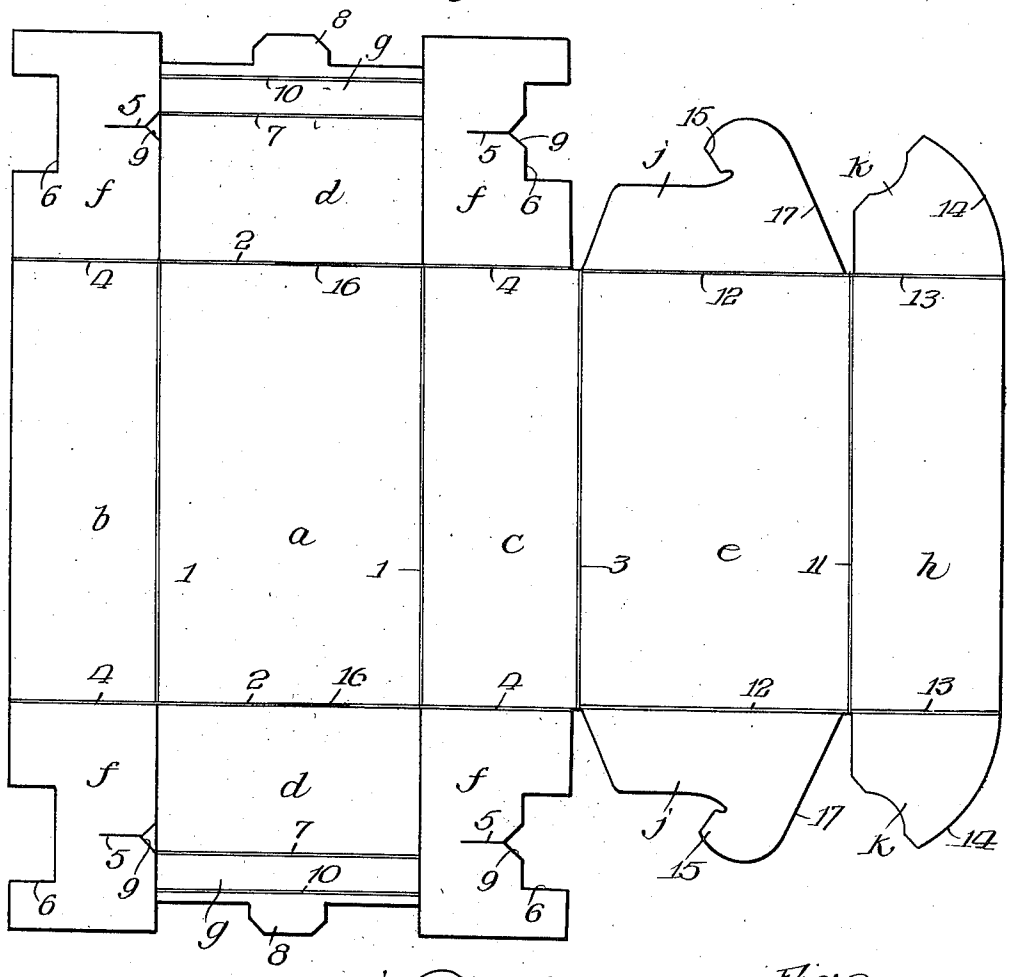
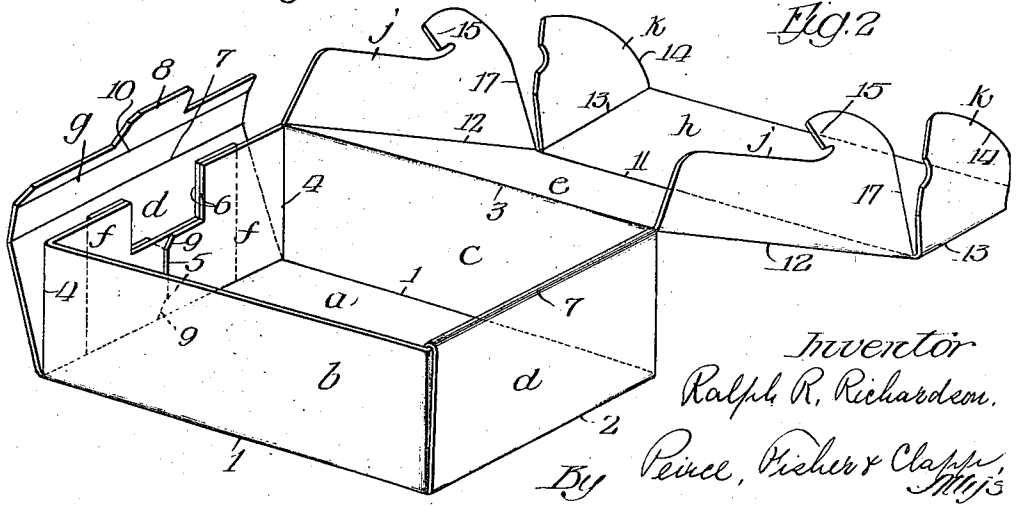


Fig. 2



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2 SHEETS—SHEET 2.

Fig. 3

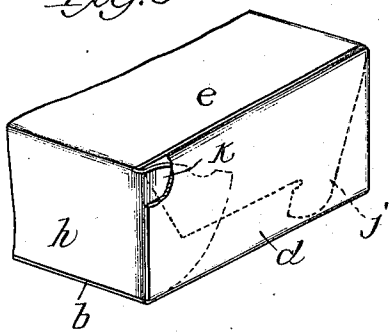


Fig. 4

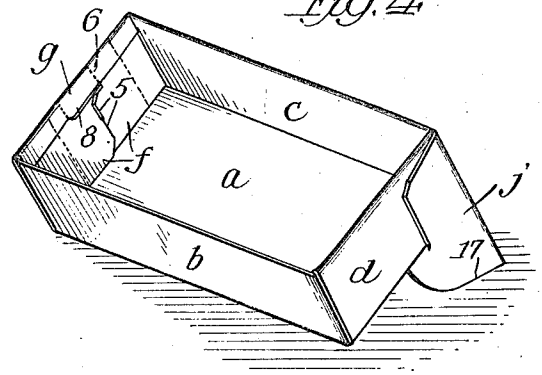


Fig. 7

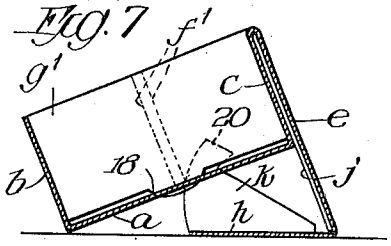


Fig. 5

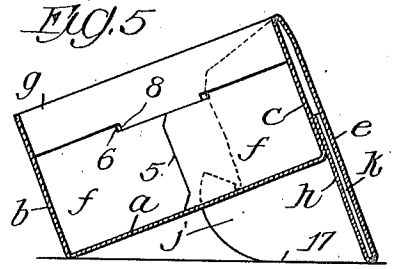
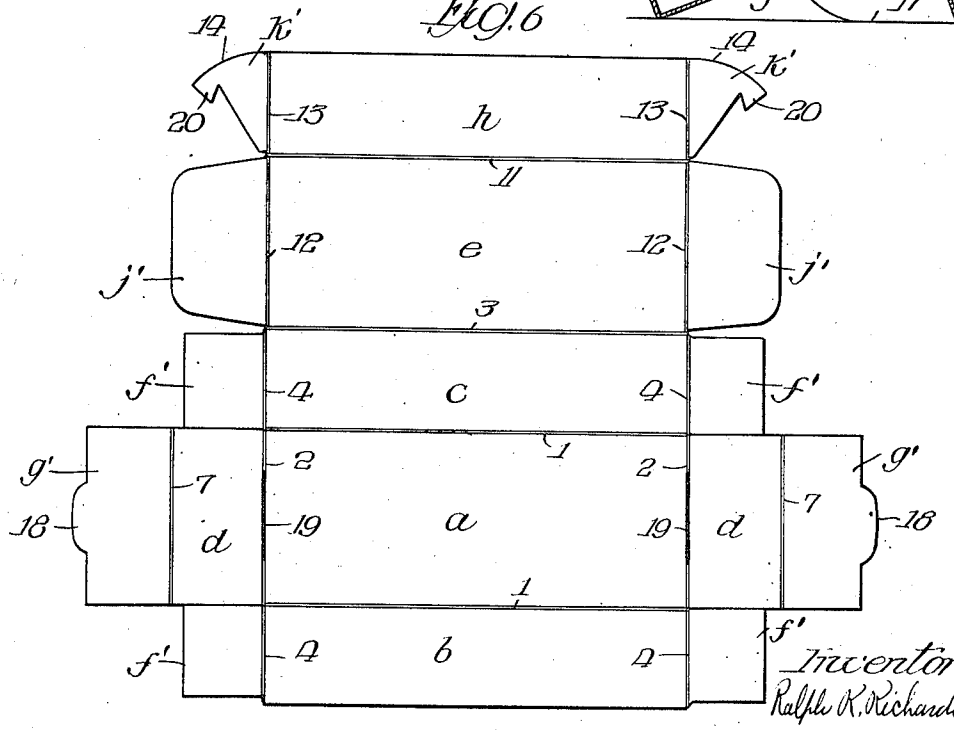


Fig. 6



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UNITED STATES PATENT OFFICE.

RALPH R. RICHARDSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHICAGO CARTON COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FOLDING PAPER BOX.

1,301,171. Specification of Letters Patent. Patented Apr. 22, 1919.

Application filed August 18, 1917. Serial No. 186,877.

To all whom it may concern:

Be it known that I, RALPH R. RICHARDSON, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Folding Paper Boxes, of which the following is a specification.

The invention relates to folding paper boxes and seeks to provide a simple, strong and inexpensive construction. A further object of the invention is to provide an improved box having a cover provided with end flaps and means for utilizing the cover and end flaps to hold the box in inclined position and thus display its contents.

The invention consists in the features of improvement hereinafter set forth, illustrated in the accompanying drawings and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view of a blank for forming a folding box embodying the present invention. Fig. 2 is a perspective view of a box made from the blank shown in Fig. 1, the box being shown partly set up with the cover open. Fig. 3 is a persepctive view of one end of the box with the cover in closed position. Fig. 4 is a perspective view of the same as arranged for display purposes. Fig. 5 is a cross section thereof with the parts in the position shown in Fig. 4. Fig. 6 is a plan view of a blank for making a modified form of the box. Fig. 7 is a cross section similar to Fig. 5 of a box made from the blank shown in Fig. 6.

The box shown in Figs. 1 to 5 inclusive comprises a bottom *a*, a front *b* and a back *c* integrally hinged thereto along side scores 1, end sections *d* integrally hinged to the bottom along end scores 2 and a cover section *e* integrally hinged to the upper edge of the back *c* along a score 3.

The front and back *b* and *c* are provided with flaps *f* integrally hinged thereto along end scores 4, and which, when the box is set up are adapted to fold inwardly at right angles to the front and back and against the inner faces of the end sections *d*. To strengthen the end walls of the box, the end flaps *f* are preferably interlocked and for this purpose are provided with vertical interlocking slits 5. They are also interlocked with the end sections and for this purpose are provided at their upper edges with rectangular notches 6 and the end sections are provided with locking flaps *g* which are hinged to the end sections along scored lines 7 and are provided at their edges with tongues 8.

The vertical slits 5 in the front end flaps extend upwardly from the lower edges thereof and the slits in the back end flaps extend downwardly from the notches 6. Preferably, as shown, the open ends of the slits are provided with V-shaped notches 9 which facilitate the interlocking of the front and back end flaps which is effected by passing the unslitted portions thereof through the slits 5 as indicated at one end in Fig. 2. When the end flaps are thus folded to position and interlocked, the notches 6 therein register as shown in Fig. 2. The end section *d* is then folded up against the outer faces of the end flaps and the locking flap *g* is folded over the upper edges thereof. The tongue 8 is then inserted through the notches 6 as shown in Figs. 4 and 5, to securely interlock the parts and form stout end walls between the front and back walls *b* and *c*. The insertion of the tongue 8 into the notches 6 is facilitated by providing the locking flaps *g* with scores 10 adjacent the outer edges thereof and parallel to the scores 7.

The cover *e* is provided with a front portion *h* integrally hinged thereto along a score 11 and which, when the cover is closed, is adapted to overlap the front *b* of the box body. The cover *e* and its front portion *h* are each provided with pairs of end flaps for holding the same in closed position and which are also preferably adapted to hold the cover backwardly folded or downturned against the back wall of the box so that the box may thereby be held in inclined position. These pairs of end flaps *j* and *k* are integrally hinged to the cover *e* and front cover portion *h* respectively along end scores 12 and 13. When the cover is closed, the front portion *h* overlaps the front *b* of the box and the end flaps *j* extend downwardly inside of and against the inner faces of the folded ends of the box. In this closed position, the flaps *k* on the front portion *h* are inserted between the end sections *d* and the end flaps *f*, as indicated in Fig. 3. To facilitate placing the flaps *k* in this position

as the portion *h* is folded down over the front *b*, the edge portions 14 of these flaps are in the form of circular arcs struck from the intersections of the scores 11 and 13. The flaps *j* and *k* serve to hold the cover and its front portion in closed position. These flaps and the front portion *h* are preferably of substantially the same height as the vertical walls of the box and so assist in supporting the cover when the latter is closed.

For holding the box in display position, the cover end flaps *j* are cut away and provided with tongues 15 and the box body is provided with slits 16 which are located along the end scores 2 at the lower edges of the folded ends. In arranging the box for display purposes, the flaps *k* are folded about the scores 13 against one of the faces of the front portion *h* of the cover and these parts are then folded about the score 11 against the upper face of the cover *e*. The cover is then folded back or downturned about the score 3 and the cover end flaps *j* are turned forwardly, the tongues 15 thereof being inserted in the slits 16 at the lower edges of the folded ends of the box. In this position, the cover *e* is substantially parallel to the back *c* of the box and the parts *h* and *k* are held in place between the cover and back, as most clearly shown in Fig. 5. The cover then serves as an easel or support for holding the box in inclined or display position. In this position, the cover is strengthened by its end flaps *j* and preferably the edges 17 of these flaps, which are then lowermost, are inclined so as to engage the horizontal supporting surface.

In the form shown in Figs. 6 and 7, the parts *a*, *b*, *c*, *d* and *e* are similar to the corresponding parts of the box shown in Figs. 1 to 5 inclusive. The end flaps *f'* of the front and back sections fold inwardly against the inner faces of the end sections *d* but are not provided with interlocking slits and notches. The locking flaps *g'* of the end sections which fold inwardly over the end flaps *f'* are of substantially the same height as the end sections *d* and are provided with rounded tongues 18 which engage slits 19 formed in the scores 2 to thereby secure the portions of the folded ends. The cover is provided with a front portion *h*, and these parts have end flaps *j'* and *k'* which, like the corresponding parts of the box first described, act in a similar manner to hold the cover in closed position. But in this form, the flaps *k'* are provided with tongues 20 which are arranged to engage the slits 19 when the box is to be held in inclined position, as shown in Fig. 7. When the box is thus arranged for display purposes, the flaps *j'* are folded about the score 12 against the upper face of the cover and the latter is then downturned or folded backwardly so that these flaps are held between the cover and the back wall *c* of the box. The front cover portion *h* then extends forwardly and the end flaps *k'* upwardly with the tongues 20 of the latter extending through the slots 19.

The improved box is simple and inexpensive and is provided with folded end portions of considerable strength. The cover is securely held and supported both in its closed position and, when backwardly folded or downturned, holds the box in an inclined display position.

It is obvious that changes may be made in the details set forth without departure from the essentials of the invention, as defined in the claims.

I claim as my invention:—

1. A paper box provided with a cover hinged to the back portion thereof, said cover having hinged flaps at its opposite ends arranged to engage the opposite end portions of the box and adapted to hold the cover either in closed position or downturned in rear of the back portion of the box to support the latter in inclined position.

2. A folding box comprising a bottom, front, back, folded ends, slits at the lower edges of said ends, and a cover hinged to the upper edge of said back, said cover having flaps at its ends, arranged to engage said folded ends to hold the cover closed, said flaps having tongues arranged to engage said slits and hold said cover in downturned position and thereby hold the box inclined.

3. A paper box having a cover hinged to the back portion thereof and provided with a hinged front, said cover and said front having pairs of end flaps arranged to engage the end portions of the box-body to hold the cover closed and one pair of said flaps being arranged to engage the end portions of the box-body to hold the cover downturned in rear of the back of the box and thereby support the latter in an inclined position.

4. A folding box comprising a bottom, front, back, folded ends and a cover hinged to the upper edge of said back and having a front portion for overlapping said box front, said cover and front portion having pairs of end flaps arranged respectively to extend inside of and between the portions of said folded ends, to hold the cover closed, one pair of end flaps having tongues and said box having slits adapted to receive said tongues to hold said cover downturned and in position to hold the box inclined, substantially as described.

5. A folding box comprising a bottom, front, back, ends and a cover hinged to the upper edge of said back and having a front portion for overlapping said box front, and said cover having end flaps arranged to engage the box body and hold said cover down-

turned with said front portion between the same and said back, substantially as described.

6. A folding box comprising a bottom, front, back, folded ends and a cover hinged at its rear edge to the upper edge of said back and adapted to be swung about its hinged rear edge to a downturned position, said cover being unbroken between its front, rear and end edges and having flaps at its ends arranged to extend downwardly therefrom in engagement with said folded ends when the cover is closed and arranged to extend forwardly therefrom and engage the box body when the cover is downturned to thereby hold said cover in such downturned position, substantially as described.

RALPH R. RICHARDSON.