

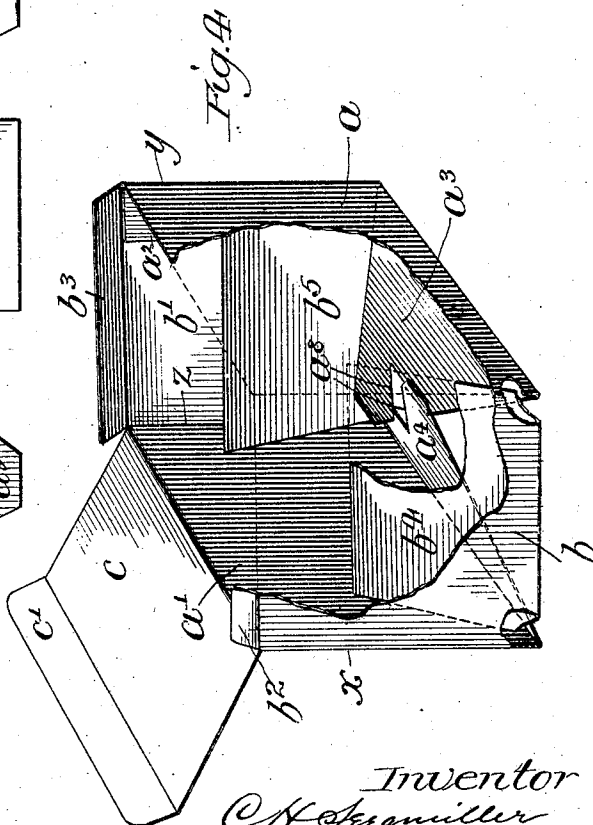
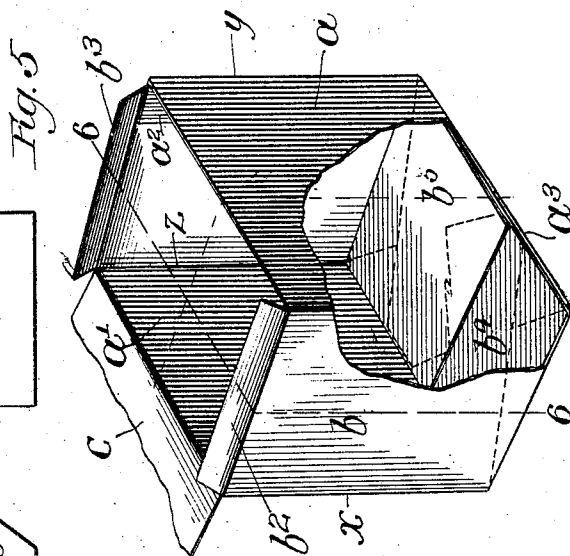
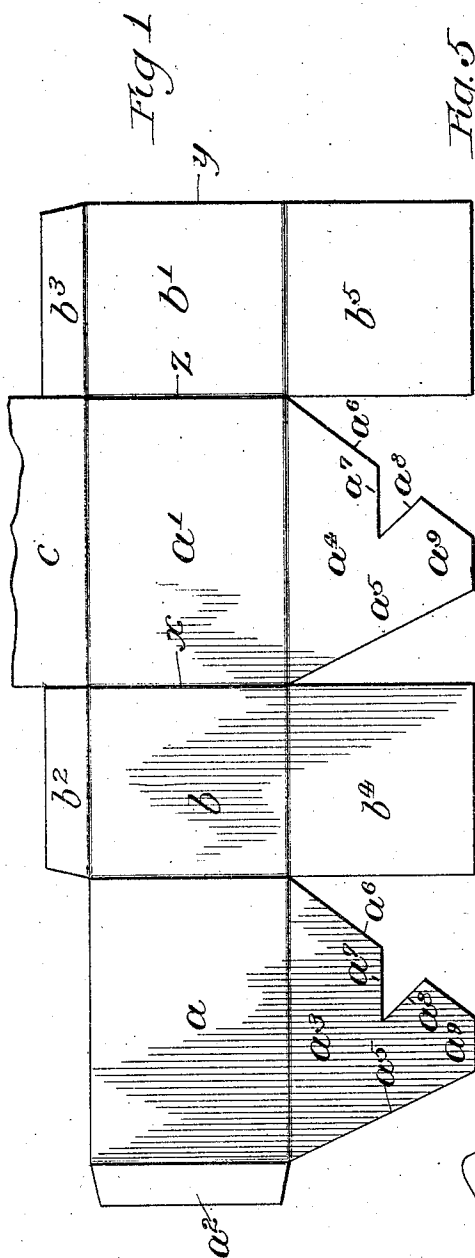
C. H. SEEGMILLER.

FOLDING BOX.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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No. 772,381.

PATENTED OCT. 18, 1904.

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2 SHEETS—SHEET 2.

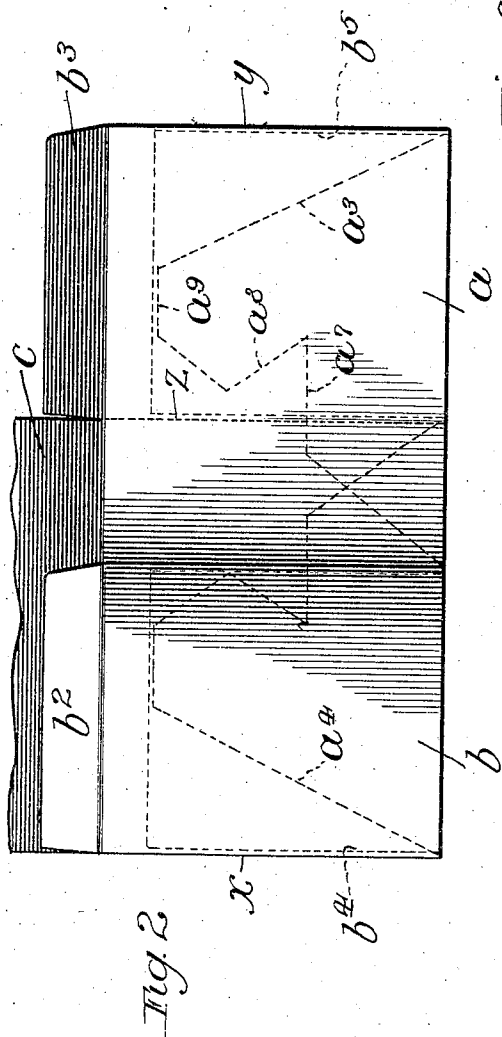


Fig. 2

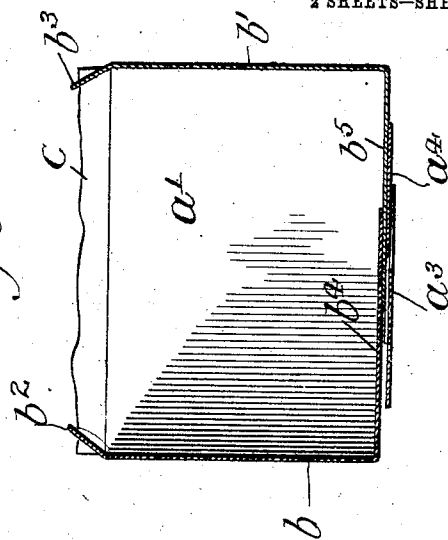


Fig. 6

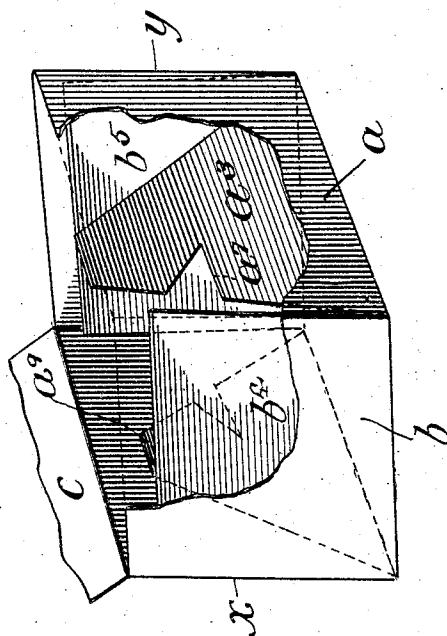


Fig. 3

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UNITED STATES PATENT OFFICE.

CHARLES H. SEEGMILLER, OF CHICAGO, ILLINOIS.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 772,381, dated October 18, 1904.

Application filed February 7, 1903. Serial No. 142,261. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SEEGMILLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Boxes, of which the following is a specification.

My invention relates to knockdown or folding boxes which are formed from single blanks; and the object is to provide a box which may be shipped in knockdown form and in which the sections of the bottom are adapted to engage and interlock with each other when the folded blank is shaped to box-like form.

In the accompanying drawings, which illustrate my invention and which form a part of this specification, Figure 1 is a plan view of a blank from which my box may be formed. Fig. 2 represents the folded blank in its flat or collapsed form ready for shipment or storage. Fig. 3 is a perspective view of the blank of Fig. 2, parts being broken away to show the interior construction as the same appears at the initial movement for shaping it to box-like form. Fig. 4 is a view similar to Fig. 3, but showing the parts at a further stage of the shaping operation. Fig. 5 is a similar view showing the parts in their final positions when the blank is shaped to box-like form, and Fig. 6 is a sectional view on the line 6 6 of Fig. 5.

Referring to the drawings by reference-letters, the blank from which my box is made comprises usual side pieces a a' , forming the front and rear walls, respectively, and the end pieces b b' , suitably creased or scored, so as to fold into box-like form. One of the parts, as the front a , is provided with an end flap or extension a^3 , which is suitably secured, as by pasting or gluing, to the free edge of the part, as b' , against which the free edge of the front wall carrying the flap abuts when the blank of Fig. 1 is preliminarily secured at its free end to fold in its flat or collapsed condition of Fig. 2. One of the sides may be provided with a suitable cover, as c , having a tongue c' , and the ends may have narrow top strips b^2 b^3 , which are adapted to be bent or turned inwardly beneath the cover to make tight joints along the ends of the cover when the latter is folded with its tongue inserted between the

inner face of the front a and the cut-away edges of the strips b^2 b^3 to close and lock the box. The side pieces are provided on their lower edges with flaps or extensions a^3 a^4 , respectively, which have their edges a^5 a^6 tapering inwardly toward the free ends of the flaps or are substantially triangular in outline or plan view, the angle of their outer edges a^5 to the bottom lines of the sides being greater than the angle of their inner edges a^6 , all as shown in Fig. 1. The inner edge a^6 of each flap or extension a^3 a^4 is provided with a notch or recess formed, preferably, by cutting the edge along the line a^7 substantially parallel with the line of the side and along a line a^8 , which is at an angle to the line a^7 , thereby forming an angular notch or recess in the inner edge of each flap or extension.

The ends b b' are preferably provided on their lower edges with extensions b^4 b^5 , respectively, for the purpose hereinafter described, and these extensions or flaps are substantially the same width as the ends b b' , with which they are associated.

When the edges of the side a and the end b' are connected, as by gluing the flap a^2 , the blank may be folded in flat or collapsed position, as shown in Fig. 2, for shipment or storage by bending it at the diagonally opposite creases or scores x and y , the extensions b^4 and b^5 being first folded up against the inner faces of their associated ends and the bottom sections a^3 a^4 inwardly against their associated sides. The top may be turned back against the outer face of its associated side. In this position the notched edges a^6 of the bottom sections face each other, and the extensions b^4 b^5 lie between the inner faces of their associated ends and the bottom sections.

When it is desired to use the box, the collapsed or folded blank is grasped at its edges, where it is folded on the creases x and y , and these edges are pushed toward each other, whereby the ends b b' swing on the lines of the creases x and z , respectively, in a forward direction toward the operator assuming that the operator faces the front side, as indicated in Fig. 2. By this movement the flaps or bottom sections a^3 a^4 are caused to swing downwardly and inwardly, and this movement of

such sections is facilitated by reason of the tapering sides a^5 . The position of the parts when the ends have just begun their movement of swinging on the creases x and z is shown in Fig. 3, and as the ends swing still farther the edges a^8 of the oppositely-facing notches meet and contact, the end a^9 of each bottom section beyond its notch then engaging over the material at the edge a^7 of the other section, all as shown in Fig. 4, which illustrates this stage of the shaping or setting-up operation. The final movement of the ends on the creases x and z causes the edges of the notches to abut and slide upon each other until the parts assume the position of Fig. 5, the notches interlocking and the end portions a^9 overlying the rear portions of the opposite sections. The extensions $b^4 b^5$ are then turned down on top of the bottom sections to brace the box, and as these extensions or flaps are substantially the same width as the ends $b b'$ with which they are associated they extend between the walls or sides $a a'$ and serve to effectually brace the bottom of the box and prevent the same from accidental collapsing. The extensions $b^4 b^5$ also provide a smooth or flat bottom or end for the box. They also close the openings which would otherwise exist owing to the tapered formation of the flaps $a^3 a^4$.

Having described my invention, I claim—

1. A folding box comprising side and end walls flexibly connected together, bottom sections folding inwardly when the box is collapsed and having tapering side edges and flexibly connected to an opposite pair of the walls and having their adjacent edges provided with notches adapted to interlock when the said sections move outwardly in erecting the box, and flaps flexibly connected to and of substantially the same width as the other walls and adapted to rest upon the bottom sections when the box is erected, the bottom sections being confined between the said flaps and the walls to which the bottom sections are connected when the box is collapsed.

2. A folding box comprising side and end

walls flexibly connected together, bottom sections folding inwardly when the box is collapsed and having tapering side edges and flexibly connected to an opposite pair of the walls, the said sections having angular notches in their adjacent edges adapted to interlock with each other when such sections move outwardly as the box is erected, the free end of each section then overlapping the other section, and flaps flexibly connected to the other walls and of substantially the same width as the latter walls and confining the bottom sections between such flaps and the walls to which the bottom sections are connected when the box is collapsed, the said flaps being adapted to rest upon the bottom sections when the box is erected.

3. A folding box comprising side and end walls flexibly connected together, inwardly-foldable bottom sections having tapering sides and flexibly connected to the side walls, the said sections having angular notches in their adjacent edges, one of the sides of each of which notches is parallel with the attached edge of the section with which it is associated and such notches being adapted to interlock with each other, and the free end of each section engaging the said parallel side of the notch of the other flap and resting upon the latter flap between the said side and the point of attachment of the flap, and flaps flexibly connected to the other walls and of substantially the same width as the latter walls and confining the bottom sections between such flaps and the walls to which the bottom sections are attached when the box is collapsed, the said flaps being adapted to rest upon the bottom sections and brace the sides of the box when the latter is erected.

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

CHARLES H. SEEGMILLER.

Witnesses:

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