

C. H. SEEGMILLER.
FOLDING BOX.
APPLICATION FILED JUNE 27, 1914.

1,127,293.

Patented Feb. 2, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

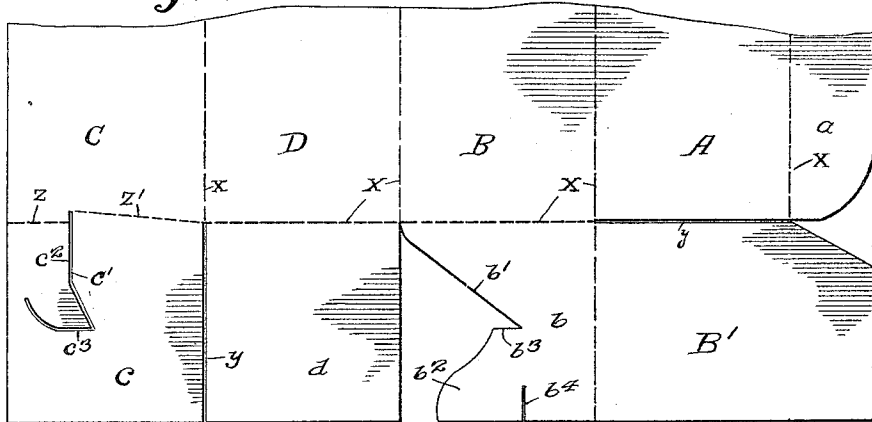
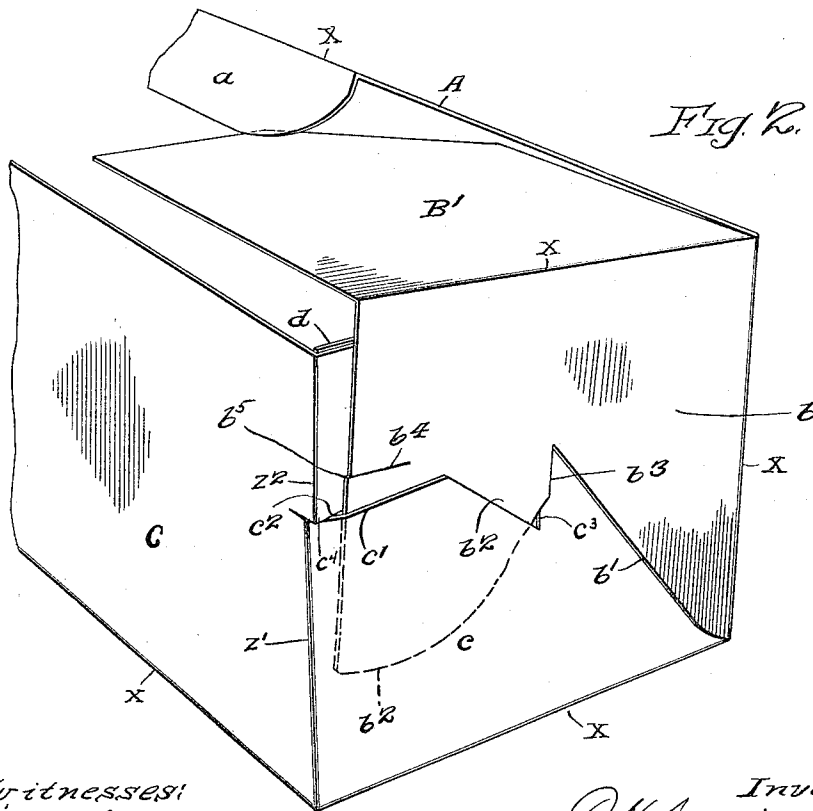


Fig. 2.



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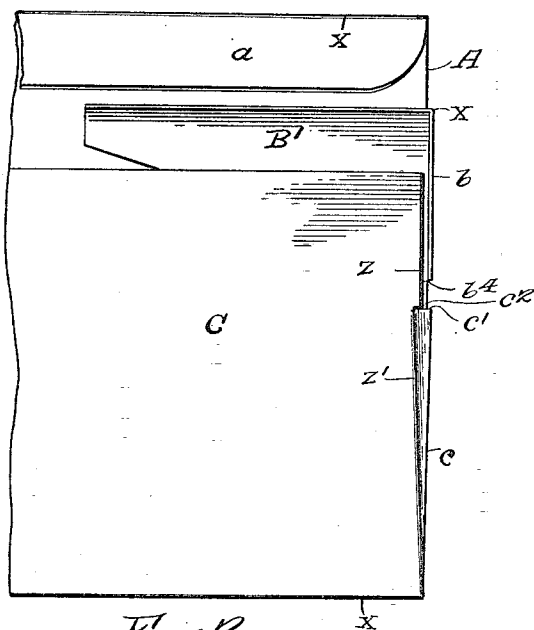


Fig. 3.

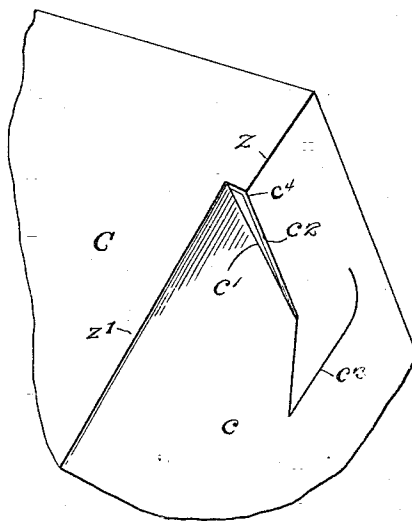


Fig. 4.

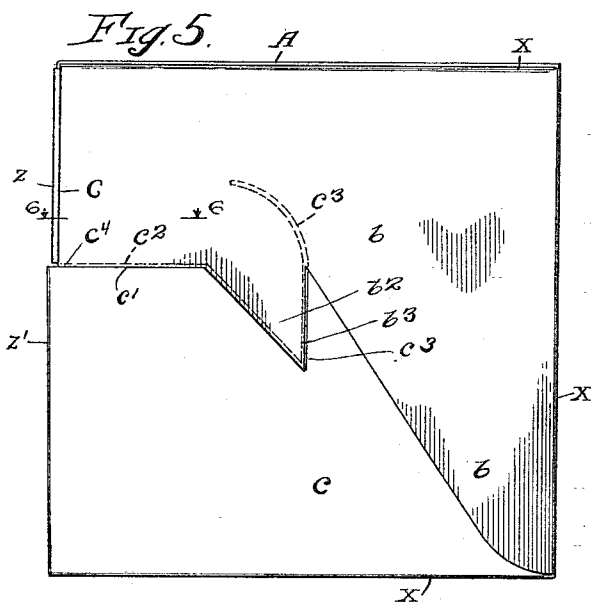


Fig. 5.

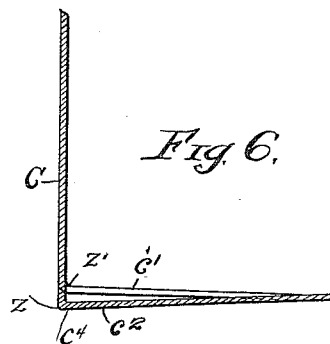


Fig. 6.

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UNITED STATES PATENT OFFICE.

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FOLDING BOX.

1,127,293.

Specification of Letters Patent.

Patented Feb. 2, 1915.

Application filed June 27, 1914. Serial No. 847,578.

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, reference being had therein to the accompanying drawing.

My invention relates to improvements in paper boxes or cartons, and consists in the matters hereinafter set forth and then pointed out in the appended claim, all of which will be fully understood by reference to the accompanying drawings which illustrate a practical embodiment thereof.

In the drawings Figure 1 is a plan view of one end of the blank from which the box or carton is made and showing the portions forming the inside faces when the box is set up; Fig. 2 is a perspective view of the carton partly set up and with the interlocking end flaps in initial relation to more clearly illustrate the organization; Fig. 3 is a detail view at one end looking toward the rear with the interlocking end flaps in the same position as in Fig. 2 and showing the outward bend or distortion in the top wall of the slot of the inner flap; Fig. 4 is a perspective view on the underside of parts shown in Fig. 3 when in their positions with the flap bent inwardly to its box-like position; Fig. 5 is an outside view of one end of the box with the side flaps in their interlocking position; and Fig. 6 is a sectional view on the line 6—6 of Fig. 5.

As shown in the drawings the box or carton is formed from a suitable blank illustrated in Fig. 1 and scored on the lines x and cut on the lines y to provide the top wall A, two parallel front and back side walls B and C respectively, a bottom wall D having end extensions d , and end walls consisting of a pair of interlocking flaps extending from the side walls. The rear side B is provided with end flaps b which preferably are provided with top extensions B' adapted to be folded inwardly over the contents of the box and underneath the top A as clearly shown in Fig. 2. The front side C is scored at z z' to provide end flaps c , the scores z being substantially vertical or at right angles to its top edge and the scores z' being inwardly offset or at an acute angle to its lower edge

so as to be inclined toward its center. Each end flap c is provided with an internal slit or slot which begins in the body of the front side C at a point inside the lower end of score z and at the termination of the upper end of the score z' and extends from its base lengthwise of the flap toward the center of the flap as shown at c' in Fig. 1 to form a horizontal wall or abutment as shown at c^2 , and which then extends at an angle toward the lower edge of the flap and then angularly toward the top to form a vertical shoulder or abutment as shown at c^3 , and to enable the intermediate material to yield or bend easily to permit the associated tongue to more readily enter the slit.

Each flap b is provided with a notch b' upon its lower edge adjacent to the bottom flap d and forming on the lower edge of the flap a tongue b^2 which preferably is somewhat shorter than the base of the flap. The tongue is formed with an upper internal straight edge b^3 extending parallel with the free edge of the flap and parallel with but slightly inside of the line of the vertical shoulder or abutment c^3 in the associated flap c as shown in Fig. 1. The tongue below the straight edge b^3 may be rounded and formed as shown in Fig. 1 if desired. By having the edge b^3 inside the line of the edge c^3 before the blank is erected to box-like form, the shoulder or edge b^3 passes into place behind the shoulder c^3 when the parts are erected without binding on the latter so that the parts slip easily and freely into abutting engagement.

Each flap b of the side B has a vertical marginal slot or cut b^4 in its outer edge and near its top, the distance of the slot from the top of the flap being the same as the distance of the base of the slot c' from the top edge of its flap c , the term "top" being used to designate the edges that are uppermost when the parts are assembled as in Fig. 5, so that the slots will aline as shown in that figure when the tongue b^2 of the flap b enters the slot c' and the top edges of the two flaps are in line when the box is erected. The slots c' and b^4 may be arranged longitudinally or obliquely.

In order to interlock the bottom wall or edge b^5 of the slot b^4 of the tongue with the top wall or edge c^2 of the slot c' which is the top wall of the slot c' when the parts are assembled, the inward or lateral inclina-

tion of the score z' toward the center of the flap C behind the score z causes the material or stock of the blank at the base of the flap c and between its top edge and the end of the slot c' adjacent its side C to bulge or protrude outwardly beyond the lower edge to form a slight hump or nodule c^4 so that after the tongue is slipped to place in the slot c' the top edge or wall c^2 of this slot will project over or overlie the bottom edge or wall b^5 of the slot b^4 as shown in Figs. 5 and 6.

The inclination of score z' back of the lower end of score z causes the stock of the side C and its flaps to break below the slot c' on a line back of the line in which the then side edge of the tongue b^2 lies; in other words, this edge of the tongue when the parts are assembled lies in the prolongation of the line of the score z while the upper end of the bend due to the score z' is slightly outside of or beyond this line, so that the side edge of the tongue does not bind or strike against the side C and the mouth of the slit b^4 does not need to be cut away.

When the blank is set up or erected into box-like form the center flaps d are raised, the front side C is bent to assume substantially a right angle to the bottom or body D to form the front of the box, and the flaps c are then folded inwardly; the flaps b are then brought up into initial position upon the outside of the associated flaps c , the tongue b^2 being passed into the slit c' in the flap c as shown in Fig. 2 and as the rear side B is brought to vertical position the tongues pass downwardly and forwardly into the slits until they reach the position shown in Fig. 5 at which time the straight edge b^5 of each tongue passes down in front of the ver-

tical shoulder or abutment c^3 formed by the perpendicular portion of the slit in the associated flap c , and at the same time the horizontally disposed walls b^5 pass under the outwardly projecting portions c^4 of the walls c^2 which form horizontally disposed interlocking straight edges. The sides and ends are thereby held by a vertically disposed straight-edge lock formed by the edges b^3 and c^3 and by a horizontal straight edge lock formed by the edges c^4 and b^5 .

The operation of interlocking the flaps is duplicated at each end and is usually carried on at the same time, the box thus being erected or set up, and after the box has been filled the flaps B' are turned down over the contents and the cover or top A is brought down to place and its tuck a is inserted behind the front side C and between the ends.

I claim:

A box having connected bottom and side walls, each side wall being scored to provide overlapping pairs of end flaps, one of the flaps of each pair having a vertical top score and a lower score whose upper end is inwardly offset from the top score, said flap also having a slot extending from near the upper end of the offset score at its base toward its free end, and the other flap of each pair having a tongue to enter the slot in the first flap and a marginal slot in its free edge to provide a wall underlying the upper wall of the slot of the first flap.

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

CHARLES H. SEEGMILLER.

Witnesses:

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