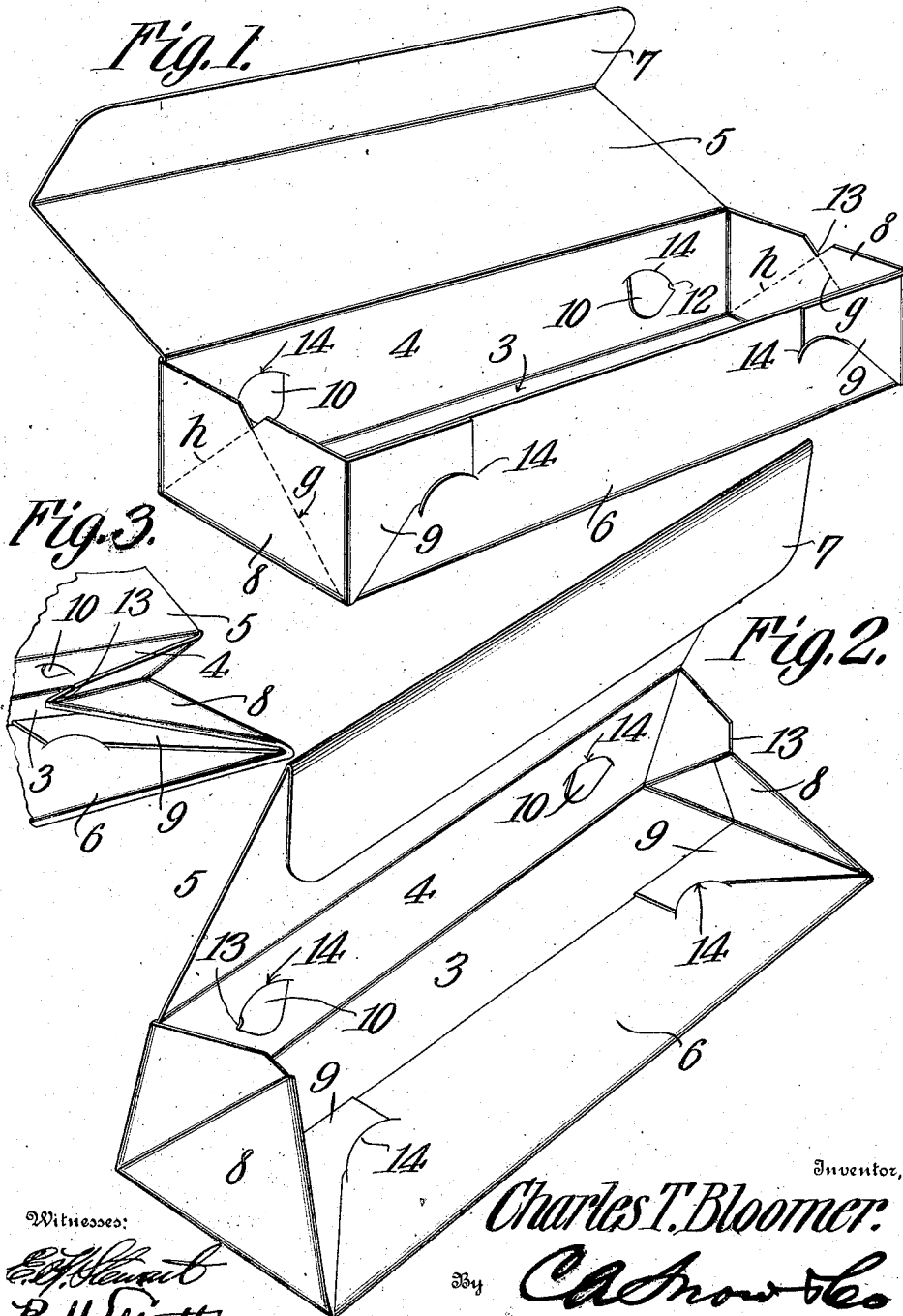


899,654.

Patented Sept. 29, 1908.
2 SHEETS—SHEET 1.



Witnesses:

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334

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UNITED STATES PATENT OFFICE.

CHARLES T. BLOOMER, OF NEWARK, NEW YORK.

FOLDING BOX.

No. 899,654.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed January 21, 1908. Serial No. 411,917.

To all whom it may concern:

Be it known that I, CHARLES T. BLOOMER, a citizen of the United States, residing at Newark, in the county of Wayne and State of New York, have invented a new and useful Folding Box, of which the following is a specification.

This invention relates to folding boxes.

In boxes or cartons of the above character, that are made of pasteboard, if the structure be not twice as wide as it is high, and has forty-five degree creases in its ends to allow the structure to be folded or knocked down, the creases must cross, and there will be a section of stock within the angles of the crease and beyond the point thereof, which will prevent proper folding and must be cut away to allow the box to be knocked down or folded in convenient, neat and proper manner, and also to enable it to be set up.

It is the object of the present invention to provide a folding carton that shall be of any desired height, irrespective of its length and breadth, and in which folding of the same to a flat condition for purposes of shipment may readily be effected.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a folding box or carton, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in perspective of a folding box constructed in accordance with the present invention, showing the same as it appears when the parts are assembled in packing position. Fig. 2 is a similar view showing the position of the parts when the box is to be folded. Fig. 3 is a perspective detail view of a portion of the box exhibiting the last step of folding. Fig. 4 is a perspective view showing the box completely folded. Fig. 5 is a plan view of the blank.

The blank shown in Fig. 5 comprises an approximately rectangular body portion 1 provided with two lateral extensions 2. The body portion is provided with longitudinal score or weakened lines *a*, *b*, *c* and *d*, of which the lines *a*, *b* define the bottom 3 of the box, the lines *b*, *c* the back wall 4 thereof, and the lines *c*, *d* the top 5, that portion of the blank extending from the line *a* outward to one edge of the blank forming the front wall 6,

and that portion extending from the line *d* outward to the other edge of the blank forming the front flap 7. The lines *a* and *b* are continued through the extensions 2 and intersect two other score lines *e* and *f* arranged in alinement with the side edges of the blank, the portion of the extensions included between the lines *a*, *e*, *b* and *a*, *f*, *b* defining the end walls 8 of the box. Those portions of the extensions that extend beyond the lines *a* and *b* constitute locking tongues 9, each of which is provided on its inner edge, or that next to the side edges of the blank, with a rounded nose 10 and an angular edge 11, and at the intersection of each of the noses and of the edges 11 is formed a locking notch 12.

Each of the extensions is provided with two score or weakened lines *g* and *h* that extend from the meeting points of the lines *a*, *b*, *e*, *f* outward to the side edges of the extensions 2 and cross each other adjacent to such edges, as shown in Figs. 1 and 5, and the material of the extensions between the crossed score lines at these points is removed to provide V-shaped notches 13. In addition to the above features, the back wall 4 and front wall 6 of the blank are each provided with two approximately semi-circular locking slits 14 that are adapted to be engaged by the noses of the locking tongues 9.

In setting up a box with a blank constructed such as described, the front wall 6 is bent upwards at right angles to the bottom 3 on the score line *a*, and the back wall is similarly bent upward on the score line *b*. The locking tongues are then bent around the walls 4 and 6 along the score lines *a* and *b*, and the noses 10 thereof are inserted through the locking slits 14, the notches 12 of the tongues interlocking with the outer terminals of each of the slits. The body of the box thus being formed, the top is folded over the same on the score line *c* and the front flap is folded downward on the score line *d*.

When the box is to be knocked down, so as to cause it to present a flat structure, as shown in Fig. 4, the front wall is folded in over the bottom 3, and this will cause the end walls first to be forced outward, this being permitted by the score lines *e*, *f*. Further inward movement of the front wall 6 will cause the end walls to bend inward along the score lines *g* and the score lines *a* and *b*, thereby permitting one-half of the end walls and the entire front wall to lie flat upon the bottom of the box. It is at this point that

the V-notches come into play, as it will be noted by reference to Fig. 2 that one wall of each of these notches will lie parallel with the score lines *h*, so that there will be no projecting parts to interfere with the final folding of the blank. The end walls are now bent inward, as shown in Fig. 3, along the score lines *h*, and along the score line *b*, thereby causing the other half of each of the end walls to lie flat upon its intermediate portion, or that lying between the score lines *g* and *h*. The front flap is now folded inward along the score line *d* and lies upon that portion of the top that extends beyond the bottom, as clearly shown in Fig. 3.

To reiterate, and to bring out more fully the peculiar manner in which the box is folded, it may be stated that when in knocked down position, as shown in Fig. 4, the front wall 6 lies directly on the bottom, the end walls 8 overlie the locking tongues 9, the back wall 4 overlies the end walls, the front wall 6 and a portion of the bottom, the top overlies the front wall and projects beyond the body, and the front flap overlies that portion of the top that so projects.

It will be seen from the foregoing description, that by the provision of the V-shaped notches 13 in the end walls, it will be possible to make a folding carton of any width relative to its height, and still employ score or crease lines that are arranged at angles of forty-five degrees, whereby to permit the carton to be folded into a perfectly flat condition for purposes of transportation.

I claim:—

1. A folding carton having a bottom provided at each end with a lateral extension, the terminals of each extension being provided with a rounded nose, with an angular edge and with a locking notch at the intersection of the nose and the edge, the intermediate portion of each extension being provided with score lines that extend from the outer edge of the bottom and cross each other within the inner edge of the extension, the material of the extension between the intersecting score lines being removed to form V-shaped notches.

2. A folding carton having a bottom provided at each end with a lateral extension, the terminal of each of which is provided with a rounded nose projecting toward the bottom, with an angular edge, and with a locking notch at intersection of the nose and edge and forming a continuation of the latter, the intermediate portion of each extension being provided with score lines that extend from the outer edge of the bottom and cross each other within the inner edge of the extension, the material of the extensions between the intersecting score lines being removed to form V-shaped notches.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHAS. T. BLOOMER.

Witnesses:

CHAS. B. KLEFERER,
N. B. LESTER.