(No Model.) 2 Sheets—Sheet 1.

C. SCHWARTZ.

FOLDING BOX.

No. 414,450. Patented Nov. 5, 1889.

Fig. 1.

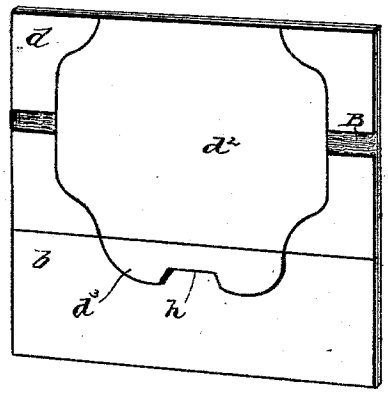


Fig. 2.

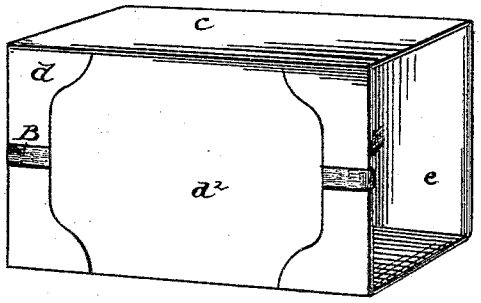


Fig. 3.

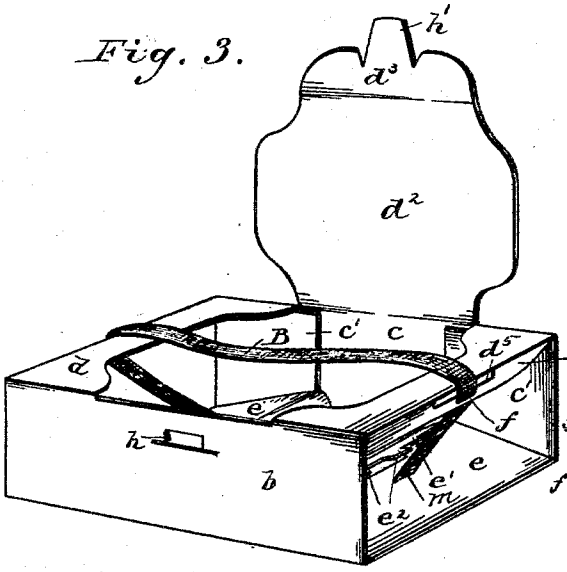


Fig. 4.

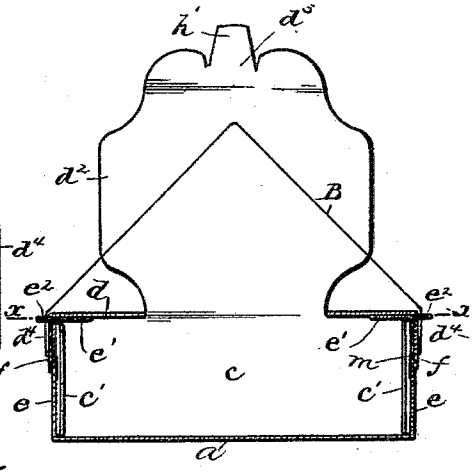
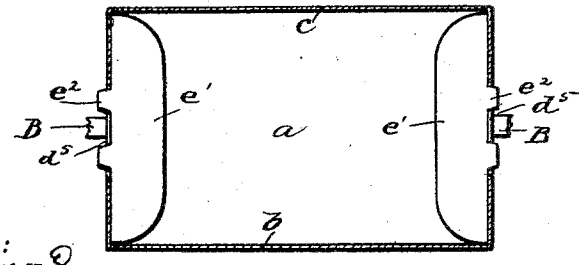


Fig. 5.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 6.

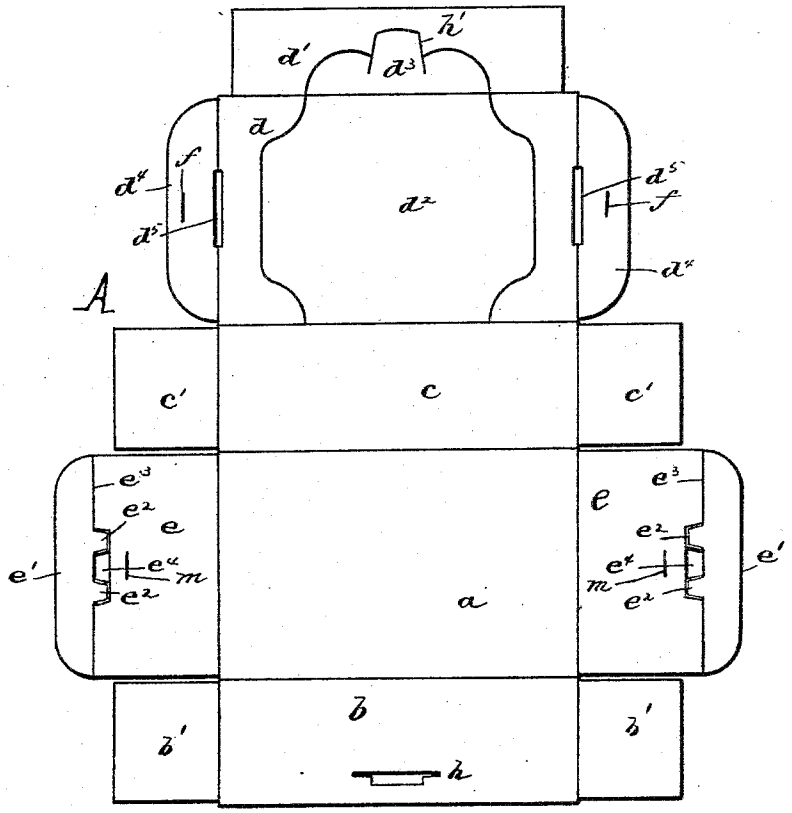


Fig. 7.

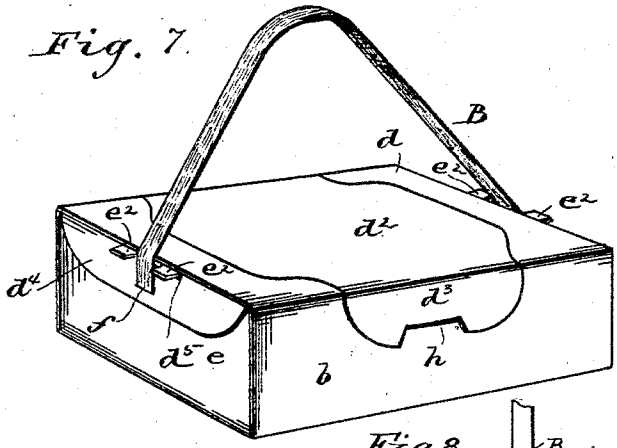
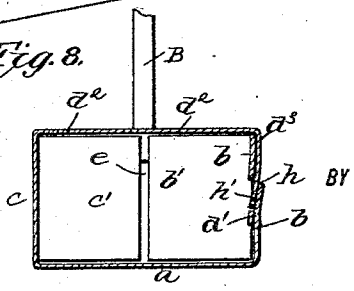


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES SCHWARTZ, OF BROOKLYN, NEW YORK.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 414,450, dated November 5, 1889.

Application filed May 15, 1889. Serial No. 310,917. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SCHWARTZ, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Folding Box, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved paper box adapted to be folded or knocked down to a flat state for shipment or packing; and the invention consists in constructing the box with folding walls, which are adapted to be drawn up by a tape and locked to hold the box firmly in upright position.

The invention also consists in forming the box with a cover made a part of the blank.

The invention also consists in forming the end walls with flaps formed with locking tongues or projections to enter slots in the outer end flaps.

The invention finally consists in the special construction of the blank and details thereof, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my new box as it appears in a folded or collapsed state. Fig. 2 is a perspective view of the box as it appears when set up. Fig. 3 is a similar view showing the cover open. Fig. 4 is a sectional elevation of the same. Fig. 5 is a sectional plan view on line $x\,x$ of Fig. 4. Fig. 6 shows the blank. Fig. 7 is a perspective view of the box, showing the preferred form of end locking pieces; and Fig. 8 is a transverse sectional elevation of the box, showing the cover closed and the tongue h' passed through the slot h in the front wall.

The blank A, of pasteboard or similar material, is cut to form the bottom a, front wall b, rear wall c, top d, and flap d' thereof, which is to be pasted to the inner surface of the front wall b. In the top d is cut the cover d^2, the fastening-flap d^3 of which is cut from the flap d'. Each end of the top d is formed with an end flap d^4 and slot d^5 at its juncture with the top, through which latter pass the locking projections e^2 e^2 of the end walls e and integral flaps e'. The said end walls e are a part of the bottom a, and the flap e' a part of the end walls e, scored at e^3, the said locking projections e^2 being cut out by the die and spaced by removing a portion of the pasteboard, as at e^4. The front wall b is formed with the end flaps b' b', and the back wall c is formed with the end flaps c' c'. These flaps b' c' are adapted to be folded in at the ends of the box for the purpose of closing the corners and strengthening the ends of the box. To the end walls e e are attached the ends of the tape B, which passes thence through slots f in the flaps d^4. The tape is of sufficient length to permit the end walls e to fold in upon the bottom of the box. When so folded in, the flaps b' c' are turned in against the front and back walls and held by the edges of the end walls e, and the flaps e' e' are also turned to a flat condition on the bottom of the box in a plane with the end walls e. In this condition the whole box may be "knocked down" to a flat state, as shown in Fig. 1.

To set the box up, the tape B is grasped in one hand and the bottom of the box in the other and a slight pull exerted upon the tape, whereupon the end side walls will rise to vertical position and the end walls e e be swung out between them to vertical position. The stress on the tape will swing down the flaps d^4 to vertical position. The locking-flaps e' e' will be turned to horizontal position, as shown in Fig. 4, and the locking projections e^2 thrust through the slots d^5, astride the tape, as shown in Fig. 7, thus locking the box in upright position and closing the upper corners. The end flaps b' c' will now be swung by placing the hand upon the interior of the box out against the end walls e, as shown in Fig. 8. The tape B serves to hold the flaps d^4 close down to the end walls, also as a means for setting the box up, and also as a bail. The front wall b is formed with a slot h to receive the tongue h' of the flap d^3 of the cover, and as this cover is a permanent part of the box and hinged it may be opened to fill and empty the box the same as with a permanent or non-knockdown box.

The ends of the tape B may be secured to the end walls of the box in any manner; but I prefer to form a narrow slot m in said walls, through which the ends of the tape may be passed, and to cement them upon the inner

surface of the said end walls, as indicated clearly in Fig. 4.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a folding box whose top is provided with flaps slotted at d^5, in combination with the end walls, the folding flaps e' at the free outer edges thereof, and the locking projections e^2 at the juncture of said flaps e' with the end walls to enter slots d^5, substantially as described.

2. A folding box whose top is provided with side flaps d^4, slotted at the score, and whose end walls are provided with a flap e', adapted to fold inward and formed with projections e^2 to pass through the slots d^5, substantially as described.

3. A blank for a knockdown box, comprising a bottom portion, folding end walls attached thereto, folding flaps at the outer edges of the end walls provided with locking projections, a folding front wall having end flaps, a folding back wall having folding end flaps, and a top having folding flaps at each of its free edges, the blank being slotted at the score between the top and its end flaps to receive the locking projections on the end walls, substantially as described.

CHARLES SCHWARTZ.

Witnesses:
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