P. J. CRAIG.

FOLDING BOX.

APPLICATION FILED JUNE 29, 1917.

1,281,768.

Patented Oct. 15, 1918.

Fig. 1.

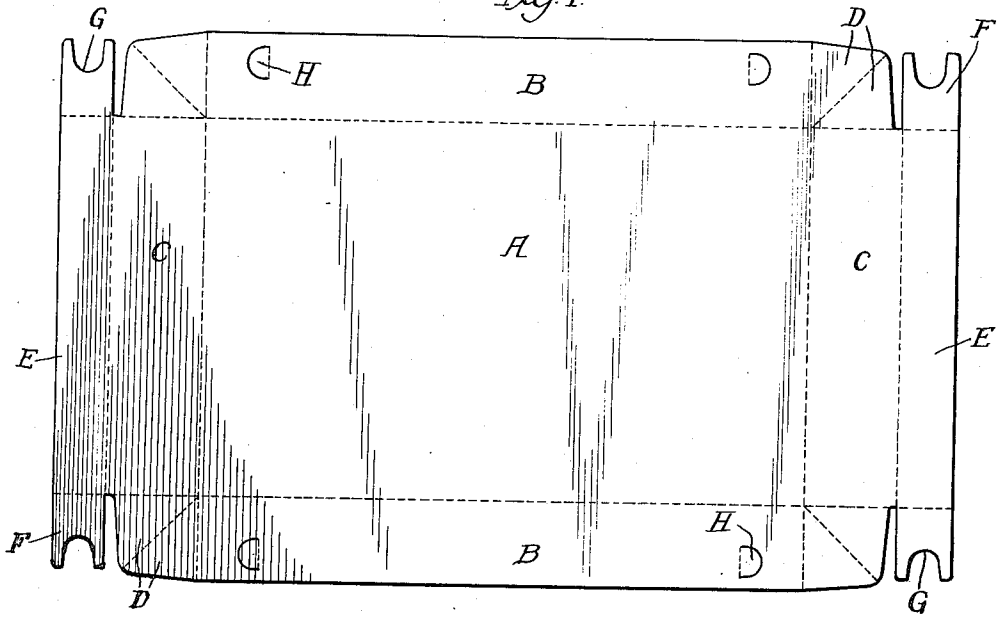


Fig. 2.

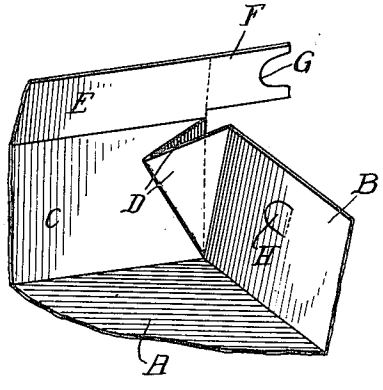
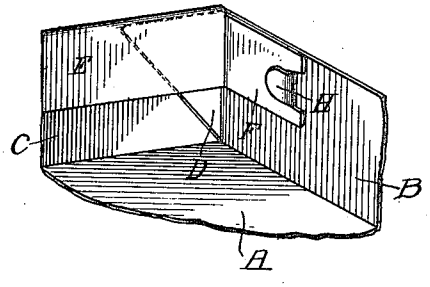


Fig. 3.



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UNITED STATES PATENT OFFICE.

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FOLDING BOX.

1,281,768. Specification of Letters Patent. Patented Oct. 15, 1918.

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To all whom it may concern:

Be it known that I, PORTER J. CRAIG, a citizen of the United States, residing at Middletown, in the county of Henry and State of Indiana, have invented certain new and useful Improvements in Folding Boxes, of which the following is a specification.

My invention relates to folding paper boxes of the class ordinarily made of paper board and commonly supplied to the consumer in knock-down condition in the form of creased blanks adapted to be readily converted into box form at the time they are desired to be used. The object of my invention is to provide an improved box of this class which may be quickly set up without the use of glue, paste, or staples, and which will remain securely locked, and which has no projecting flaps or tongues of any sort upon its exterior surface liable to be torn away. A further object is to cut the blanks in the most economical manner possible and in such manner that from a blank of given dimensions the largest and strongest box possible may be constructed.

The box structure hereinafter described is particularly adapted to be used as a suit box or a box adapted to receive a garment, and it will be understood that ordinarily two box members differing in size sufficiently to telescope together easily will be employed to constitute the complete box.

In the accompanying drawings forming a part of this specification, Figure 1 is a plan view of the blank which is adapted to be folded to form my novel form of box. Fig. 2 is a perspective view of one inside corner of the blank partly folded, and Fig. 3 is a perspective view of the same portion of the box completely folded.

The same reference characters indicate the same parts in all the figures of the drawing.

As will be seen by reference to Fig. 1, the blank from which the box is folded consists of an oblong, rectangular sheet or board comprising a bottom portion A, sides B and ends C, hinged thereto along creased folding lines, a pair of triangular bellows-fold portions D D hinged at each corner of the box to the adjacent ends of the sides B and ends C, and separated from each other by a creased folding line, a pair of opposite end flaps E hinged respectively to the ends C, and locking flaps F hinged to the opposite ends of each end flap E. The free end of the locking flap F is formed with a notch G having a curved bottom, and near the end of each side B an approximately semi-circular cut forms a locking tongue H which is adapted to coöperate with the notch G when the box is folded.

As shown in Figs. 2 and 3, in folding the box the bellows fold D D is folded on the inside against the adjacent end C, and the end flap E folded down over the bellows fold, with the locking flap F extending at right angles to the flap E along the adjacent side B of the box, the locking tongue H extending through the notch G and overlapping it in such manner as to interlock the parts together. The end portions of the flap F on each side of the notch G extend a short distance beyond the base of the tongue H, whereby the flap is held against lateral disengagement, and the inherent resiliency of the bellows fold and the infolded end tending to unfold the box are resisted by the base of the locking tongue acting against the thrust of the bottom portion of the notch in the flap F, with the result that the parts are securely locked together.

It will be noted that there are no projecting tongues or tabs of any sort upon the outside of the box to get caught and torn, and the folded box is therefore not liable to have the interlocking connection of its parts accidentally destroyed in handling it. It will further be noted that there is no duplication of walls in the box structure excepting the end flap F, bellows fold D D, and locking flap F, and that the boxes may be quickly folded into box form from perfectly flat unfolded rectangular blanks which may be put up in bundles for shipment in the most compact form possible.

I claim:

1. A folding box structure formed of a single sheet cut and creased to form a bottom, side and end walls hinged to said bottom, a pair of triangular bellows folds hingedly connecting adjacent ends of the side and end walls and foldable against said end walls, end flaps hinged to the end walls and foldable inwardly against such ends over the bellows folds, locking flaps formed at their ends with U-shaped notches and hinged to said flaps at each end thereof, said locking flaps being foldable against said side walls, and locking tongues cut from

said side walls and adapted to engage the end notches of said locking flaps on the inside of the box.

2. A folding box structure formed of a single sheet cut and creased to form a bottom, side and end walls hinged to said bottom, and folding sections hingedly connected to said side walls at each end thereof and foldable against the inside of said end walls, end flaps hinged to the end walls and foldable inwardly over the folding sections of said side walls, locking flaps formed at their ends with U-shaped notches and hinged to said flaps at each end thereof, said locking flaps being foldable against said side walls, and locking tongues cut from said side walls and adapted to engage the end notches of said locking flaps on the inside of the box.

PORTER J. CRAIG.