April 22, 1930. A. E. KEPPLER 1,755,693

PACKING AND DISPLAY BOX

Filed May 12, 1928

Fig. 1.

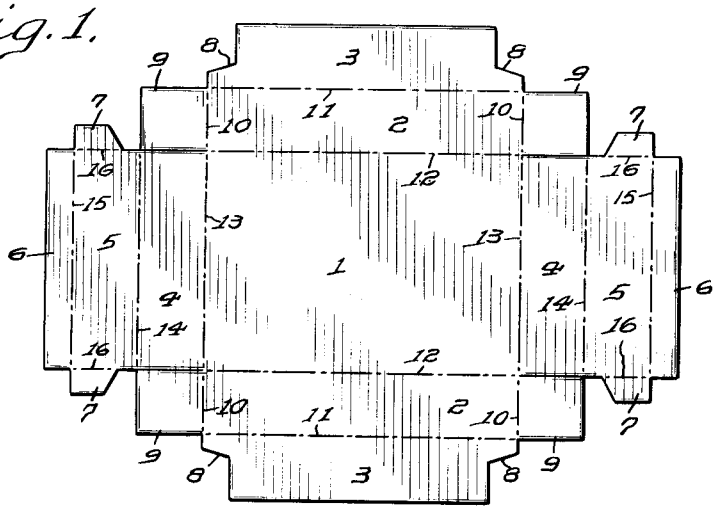


Fig. 2.

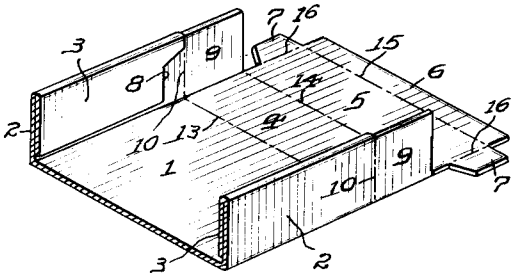


Fig. 3.

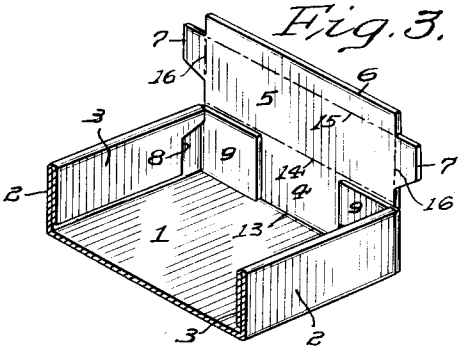


Fig. 4.

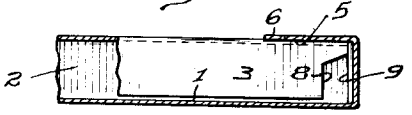


Fig. 5.

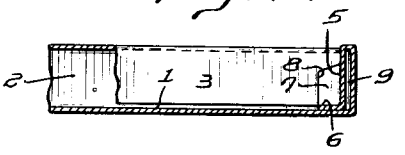
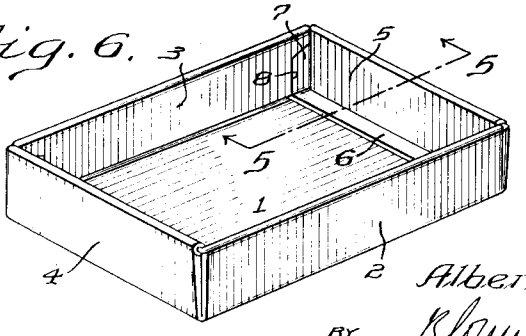


Fig. 6.



WITNESS

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1,755,693

# UNITED STATES PATENT OFFICE

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## PACKING AND DISPLAY BOX

Application filed May 12, 1928. Serial No. 277,123.

My invention relates to packing and display boxes, the principal object being to provide a foldable box having reinforced sides, ends and corners which may be constructed from a unitary blank of suitable material, the blank being cut out by a suitable die and the different parts thereof then folded and interlocked into proper relation to form the completed box. Complementary and interfitting boxes may be made, one being slightly larger and adapted to telescope with the other and form the cover therefor; when the contents of the box are to be displayed for sale purposes the larger box may be removed from the top and the smaller box, with the contents, placed therein.

My invention further includes all of the other various objects and novel features of design, construction and arrangement hereinafter more definitely specified or described or which will be apparent from the accompanying drawings in which I have illustrated one embodiment of my invention.

In said drawings, in which the same numerals designate like parts in the different figures, Fig. 1 is a plan view of the blank before the same is folded up to form the box, the points at which the blank is scored or weakened to facilitate the folding operation being indicated in dot and dash lines and the points at which the blank is cut entirely through being indicated in full lines; Fig. 2 is a perspective view, in part, of the box before the ends are folded; Fig. 3 is a like view showing an intermediate step in the folding operation; Fig. 4 is a longitudinal fragmentary section showing the position of the parts before the last step in the folding; Fig. 5 is a section on the lines 5—5 of Fig. 6 and Fig. 6 is a perspective view of the box completely folded.

The blank may be cut from cardboard, paper stock or other suitable material by a die at a single operation, the preferred form of blank being shown in Fig. 1 in which the bottom of the box is designated at 1, the outer side members at 2, 2, the inner side members at 3, 3, the outer end members at 4, 4, the inner end members at 5, 5, narrow strips or tabs at 6, 6, tongues, preferably tapering, at 7, 7, 7, 7, being end extensions of the inner sides 5, 5 and adapted to fit snugly within cutouts 8, 8, 8, 8 in the inner sides 3, 3 and lock the parts forming the folded box and end extensions of the sides 2 at 9, 9, 9, 9 foldable on the scores 10.

In forming the box from the blank, the inner sides 3, 3 are preferably first folded on the scores 11, 11 so as to lie upon the innner surfaces of the adjacent outer sides 2, 2 and are preferably secured thereto by an adhesive such as glue. While I have shown the inner sides 3, 3 as being of substantially equal width with the outer sides 2, 2 (excepting the cutouts 8, 8) they may be of less width if desired.

The pairs of side members, secured together as aforesaid, together with the end extensions 9 are then erected by folding about the scores 12 to positions substantially at right angles with the bottom 1, as shown in Fig. 2, following which the end extensions 9 are folded inwardly on the scores 10 into positions substantially at right angles to the sides 2, as best shown in Fig. 3, and the outer end members 4 are then folded on the scores 13 into positions at right angles to the bottom 1 whereupon the box will take the form, at both ends, as shown in Fig. 3.

After the box has been partially formed as shown in Fig. 3 the inner ends 5 are folded on the scores 14 so that they and the tabs 6 and tongues 7 attached thereto will lie parallel to the bottom 1 as shown in Fig. 4.

The inner end members 5, 5 are then again folded on the scores 14 into the interior of the box and in parallel relation with the outer end members 14 whereupon the tabs 6 will bend about the scores 15 and, due to the inherent elasticity of the cardboard, will bear against the bottom 1 of the box and be effectively held against accidental dislodgment; during this step in the folding operation the tongues 7 will be caused to bend about the scores 16 as they respectively engage the adjacent sides of the box and, when the folding of the inner ends 5 has been completed, they will spring into and seat themselves into cut outs 8 and form an efficient lock to hold the parts of the box in assembled relation as

shown in Figs. 5 and 6. It will be evident that the box may be restored, if desired, to blank form by reversing the folding steps.

Inasmuch as my improved box may be made from a single blank of material, it may be manufactured at a maximum economy of labor and material; it also will withstand rough handling and possesses great durability by reason of its reinforced construction and the secure locking means which I have provided. Additionally, it will be observed the blanks may be shipped in flat form to the user who can readily fold them into box form, this resulting in a very considerable saving in shipping expense.

While I have herein described and illustrated with considerable particularity one embodiment of my invention, I do not thereby desire or intend to in any manner limit myself specifically thereto as the design, construction and arrangement of the various parts may be modified if desired from the precise form to which I have referred without departing from the spirit and scope of the invention as defined in the appended claim.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

A box formed from a single blank of foldable material and comprising a bottom, outer sides, inner sides provided with cutouts at each end, outer ends, inner ends having tongue members extending from each end thereof and adapted to fit snugly within said cutouts, said tongue members being extended to the bottom of the box when in interlocked relation with the cutouts of the inner sides, extensions to said outer side members lying between each pair of inner and outer ends, and tabs extending from said inner ends adapted to be bent and bear agianst the bottom of the box, said tabs extending entirely across the bottom of the box between the tongue members and engaging the lower ends of the same and retaining the tongue members in interlocked relation with the said inner sides.

In witness whereof I have hereunto set my hand this tenth day of May, 1928.

ALBERT E. KEPPLER.