W. F. WARE.

FOLDING DISPLAY BOX.

APPLICATION FILED OCT. 28, 1912.

1,146,827. Patented July 20, 1915.

Fig. 1

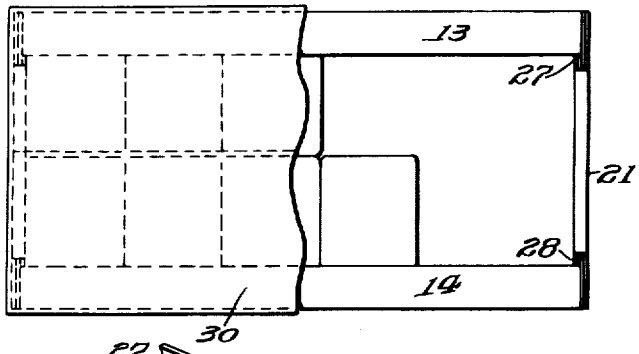


Fig. 2.

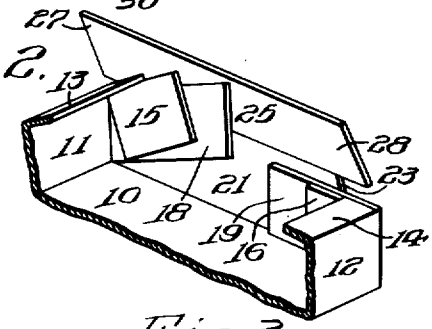
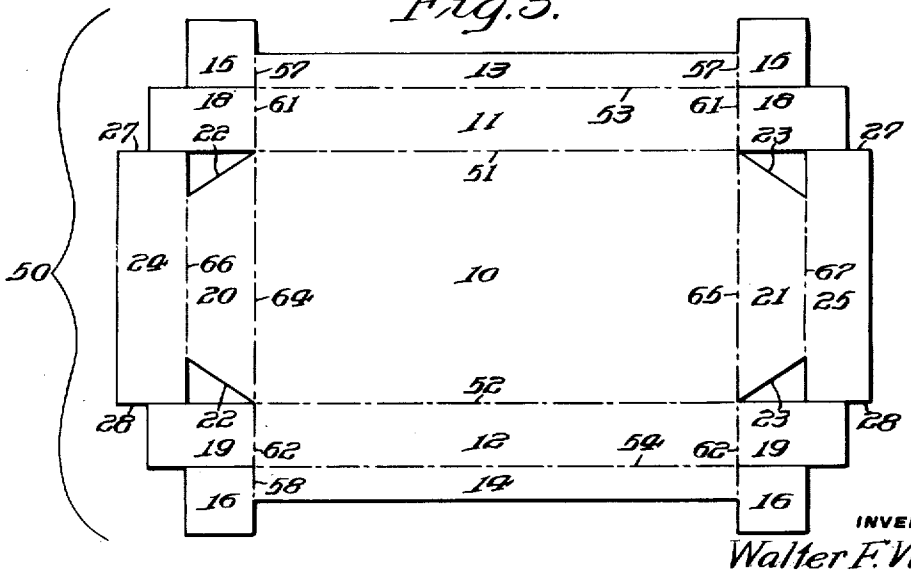


Fig. 3.



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WITNESSES

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WALTER F. WARE, OF HADDONFIELD, NEW JERSEY.

FOLDING DISPLAY-BOX.

1,146,827. Specification of Letters Patent. Patented July 20, 1915.

Application filed October 28, 1912. Serial No. 728,084.

To all whom it may concern:

Be it known that I, WALTER F. WARE, a citizen of the United States, and a resident of Haddonfield, county of Camden, State of New Jersey, have invented certain new and useful Improvements in Folding Display-Boxes, whereof the following is a specification, reference being had to the accompanying drawings.

This invention particularly relates to boxes folded from blanks of sheet material, for packing, shipping and storing merchandise, and is especially applicable to boxes such as are adapted for conveniently displaying the goods contained therein.

The principal object of this invention is to provide a box body with retaining means for preventing the accidental displacement of merchandise when arranged in the box body.

Other objects of this invention are to provide a box having reinforcements providing braces so disposed as to form a substantially rigid structure, even when constructed of comparatively light material; and to provide locking means for holding the box structure and its reinforcements in their cooperative relation.

Further objects of this invention are to provide a box that may be stored in the form of flat blanks, which may be folded and the parts expeditiously united to form the boxes as needed; and to provide a box structure which is durable and efficient, and which may be produced at a minimum expense.

This invention also comprehends the method of folding the blanks whereby the greatest possible rigidity of both the box body structure and the lid is afforded.

Briefly stated, the form of this invention hereinafter described, provides a box having separable body and lid structures, the body structure comprising a rectangular bottom, having side and end walls integral therewith and turned upward to form a receptacle for articles to be contained therein, each of said side walls having end projecting flaps and a marginal flap turned inward perpendicular thereto, and said marginal flaps having end projections extending laterally beyond the edge thereof and arranged to be turned down perpendicular to the bottom. The end walls have their lateral edges notched and are each provided with marginal flaps extending laterally beyond said edges and arranged to be folded over said end flaps and projections, with its lateral projecting portions extending beneath the inturned marginal flaps of the respective side walls.

This invention further includes all of the various novel features of construction and arrangement hereinafter more definitely specified.

In the accompanying drawings, Figure 1 is a plan view of a box including a box body and a lid constructed in accordance with this invention, showing the lid closed, and broken away for convenience of illustration; Fig. 2 is a fragmentary perspective view of the end of the box body looking from the inside and showing the foldable members partly opened; and Fig. 3 is a plan view of the plane blank from which the box body may be formed.

Referring to the drawings, one embodiment of this invention includes a box body comprising an oblong, rectangular bottom wall 10 provided with oblong rectangular side walls 11 and 12 integral therewith and which are provided with marginal side flaps 13 and 14, respectively having end projections 15 and 16 which are wider than said marginal side flaps, and which project, when turned inwardly, beyond the free edges of the respective marginal side flaps 13 and 14. Said side walls 11 and 12 are also provided with the end projecting flaps 18 and 19 which are arranged to be turned inwardly perpendicularly to the side walls 11 and 12, as best shown in the near corner of Fig. 6, and disposed exterior to the end projections 15 and 16 on the marginal side flaps 13 and 14 as therein shown. The bottom wall 10 is also provided with end walls 20 and 21 having lateral edges 22 and 23 converging respectively away from the bottom wall. The outer portion of the end walls 20 and 21 are provided with marginal end flaps 24 and 25 which project laterally in opposite directions from the outer narrower portions of said end walls respectively, and which are arranged to be folded over the end projections 15 and 16 and the end projecting flaps 18 and 19, and extended downwardly within the box, with their projecting ends 27 and 28 extending beneath the marginal flaps 13 and 14.

It will be seen that the marginal side flaps 13 and 14 not only serve as a means under which the marginal flaps 24 and 25 may be engaged to lock the parts together, but also serve to retain articles contained in the box, and to prevent them from being accidentally

displaced when the closure or lid is removed.

The box body above described is formed of a flat blank 50 of sheet material, preferably having the configuration shown in Fig. 3, which is provided with suitable score marks upon which the coöperative parts of the box may be conveniently folded. Said folding is preferably effected by first bending the side walls 11 and 12 upwardly upon the score marks 51 and 52, then bending the marginal side flaps 13 and 14 inwardly upon the score marks 53 and 54 respectively, bending the end projections 15 and 16 inwardly upon the respective score marks 57 and 58, bending the end projecting flaps 18 and 19 inwardly upon the score marks 61 and 62 against the outer surfaces of the inturned projections 15 and 16, bending the end walls 20 and 21 upwardly upon the respective score marks 64 and 65, and then bending the marginal end flaps 24 and 25 upon the respective score marks 66 and 67 over the end and projecting flaps 18 and 19 and projections 15 and 16 of the marginal side flaps 13 and 14, and pressing laterally projecting ends of the marginal end flaps 24 and 25 beneath the overhanging marginal side flaps 13 and 14.

The box herein described is adapted to contain a plurality of boxes or packages of merchandise and to conveniently provide a casing for inclosing said merchandise in shipment, and which may be converted into a display holder to be placed in convenient and conspicuous situations for the sale of the articles therein contained.

It will be observed that the marginal side flaps 13 and 14 not only provide means for retaining the packages within the receptacle formed by the box body, but also provide convenient space for advertising matter.

The terms "end wall" and "side wall" have been used in the specification and will appear hereinafter in the claims as a convenient means of describing or defining the vertical walls of the box and distinguishing the parallel vertical walls extending in one direction from the parallel vertical walls extending in a direction perpendicular thereto. But it is to be understood that these terms are used in an interchangeable manner in the specification and claims, and that the claims are not to be restricted by any narrow interpretation of these terms.

It may be here noted that a box constructed in accordance with this invention may be shipped in flat form and expeditiously formed as needed, and that by reason of the substantially rectangular configuration of the blanks, of both the box body and lid structures, the box may be formed with comparatively little waste of the web from which said blanks are cut.

It is not desired to limit this invention to the precise details of construction and arrangement herein set forth, as various modifications may be made therein without departing from the essential features of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. A blank consisting of a single sheet of material adapted to be folded to form a box body, and comprising a substantially rectangular bottom wall, a marginal wall integral with said bottom wall and extending substantially the full length of one marginal edge of said bottom wall and provided with a marginal flap integral with said marginal wall, the line of junction between said marginal wall and said marginal flap being substantially parallel to and appreciably shorter than said edge, and said marginal flap projecting freely from said line of junction in a lateral direction substantially parallel thereto, and a second marginal wall integral with said bottom wall and extending along a marginal edge of said bottom wall substantially perpendicular to said first mentioned marginal edge, said second marginal wall being provided with an end projecting flap and with a marginal flap having an end projection appreciably wider than said last mentioned flap, said end projecting flap and said end projection being arranged to be folded inwardly to coöperate with said first mentioned marginal wall and said first mentioned marginal flap where said blank is folded to form a box body.

2. A box body comprising a single blank of sheet material forming a bottom wall, an end wall having lateral edges converging outwardly with respect to said bottom wall and provided with a marginal end flap extending laterally beyond the outer narrower portion of said end wall, and a side wall having a marginal inturned side flap provided with an end projection of greater width than said marginal side flap and folded inwardly, said marginal end flap being folded inwardly over the free edges of said end projection and engaging beneath the said inturned side flap for holding the said walls in position.

3. A box body comprising a substantially rectangular bottom wall, a vertical marginal wall integral with and projecting upwardly from said bottom wall, and having lateral edges converging outwardly with respect to said bottom wall, said vertical marginal wall being provided with a marginal flap integral therewith and having an end projecting laterally from the outer narrower portion of said vertical wall, a second vertical marginal wall integral with and projecting upwardly from said bottom wall in a plane substantially perpendicular to the plane of said first mentioned vertical wall and provided with an end projecting flap integral therewith and extending inwardly there-

from, said second vertical wall being also provided with a marginal flap integral therewith and projecting inwardly therefrom in substantially parallel relation to said bottom wall, and said last mentioned flap having an end projection integral therewith and appreciably wider than said last mentioned flap and projecting downwardly therefrom in contact with said end projecting flap, said end projection and said end projecting flap being arranged inside of and in substantially parallel relation to said first mentioned vertical wall and between said first mentioned vertical wall and said first mentioned marginal flap, and the said end of said first mentioned marginal flap projecting beneath said second mentioned marginal flap.

4. A blank for a box body, comprising a rectangular bottom wall, an end wall integral with said bottom wall and provided with lateral edges converging away from said bottom wall, a marginal end flap integral with said end wall and having an end projecting freely laterally from the outer narrower portion of said end wall, and a side wall integral with said bottom wall and provided with an end projecting flap and with a marginal side flap provided with an end projection wider than said marginal side flap, said end projecting flap and said end projection being arranged to be folded in parallel relation between said end wall and said marginal end flap.

5. A box body comprising a substantially rectangular bottom wall, an end wall integral with said bottom wall, a marginal end flap integral with said end wall, the line of junction between said end wall and said marginal end flap being of a length less than the length of the corresponding dimension of said bottom wall, a side wall integral with said bottom wall and provided with an end projecting flap, a marginal side flap integral with said side wall and provided with an end projection integral with and wider than said marginal side flap, said end wall and said side wall being arranged to extend upwardly from said bottom wall and said marginal side flap being arranged to extend from the upper margin of said side wall inwardly and in substantially parallel relation to said bottom wall, and said end projecting flap and said end projection being arranged in a plane substantially perpendicular to said bottom wall and to said side wall inside of said end wall between said end wall and said marginal end flap.

In witness whereof, I have hereunto set my hand this 26th day of October, 1912.

WALTER F. WARE.

Witnesses:

HARRY D. MOORE,

BOYD N. SHEPPARD.

Corrections in Letters Patent No. 1,146,827.

It is hereby certified that in Letters Patent No. 1,146,827, granted July 20, 1915, upon the application of Walter F. Ware, of Haddonfield, New Jersey, for an improvement in "Folding Display-Boxes," errors appear in the printed specification requiring correction as follows: Page 2, line 18, after the word "inturned" insert the word *end;* same page, line 23, strike out the word "and," second occurrence; same page, line 24, before the word "projections" insert the word *end;* and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 28th day of September, A. D., 1915.

[SEAL.]

J. T. NEWTON,

Acting Commissioner of Patents.