Sept. 8, 1942. N. P. VAN WINGEN 2,295,141

CONTAINER

Filed July 15, 1940

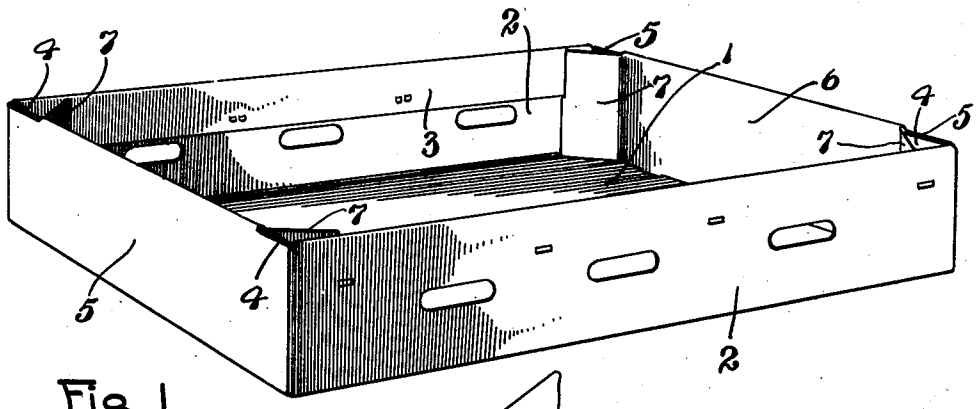


Fig. 1.

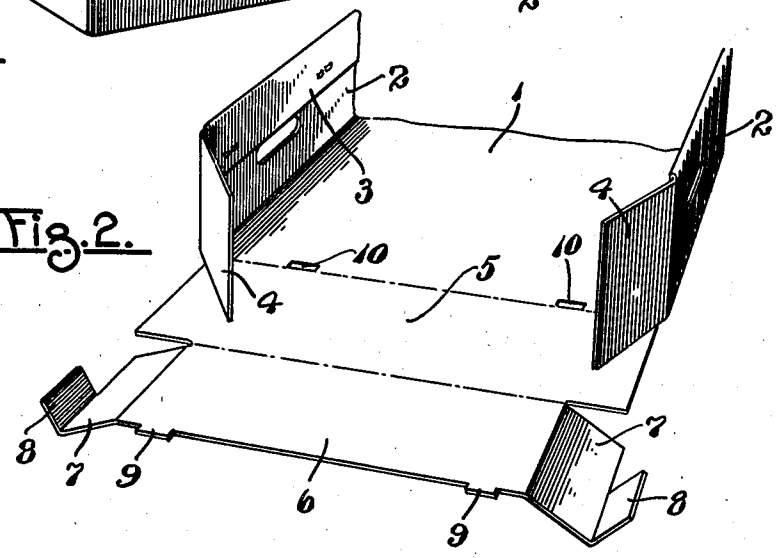


Fig. 2.

Fig. 3.

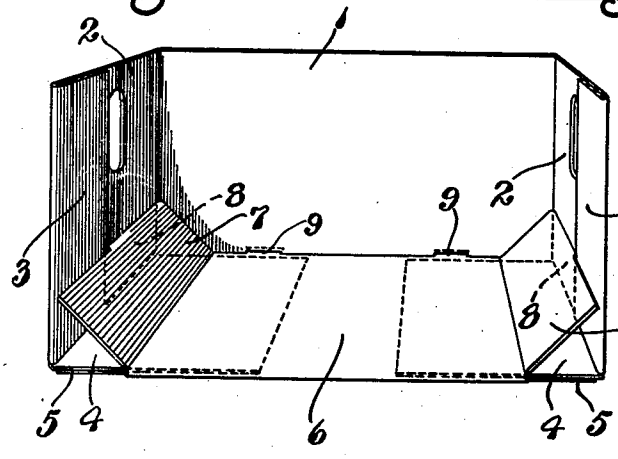
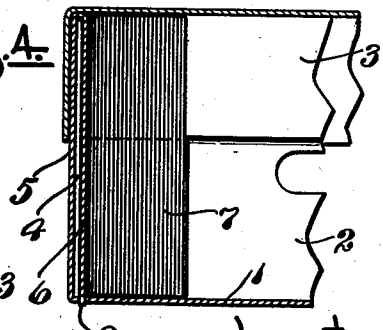


Fig. 4.



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UNITED STATES PATENT OFFICE

2,295,141

CONTAINER

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Application July 15, 1940, Serial No. 345,451

3 Claims. (Cl. 229—34)

This invention relates to a novel construction of receptacle in which articles of merchandise may be carried and in which they may be transported either by rail or by truck. While the construction has been designed more particularly for a receptacle to contain fruit, such as peaches or the like, it is not necessarily limited in use to any particular articles.

One primary object and purpose of the present invention is to provide a receptacle which may be used in shipping and transportation made entirely of paper stock and which is vertically strengthened and reinforced at the corners so that the boxes with contents therein may be stacked one upon the other and not crush because of the corner strength which will sustain the weight of the boxes and contents above. With my invention the complete box, except for the cover, is made from one piece of paper material with a minimum of waste of the material in cutting the sheet to the proper form such that it may be folded to make the complete box.

An understanding of the invention may be had from the following description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of the complete box without a cover thereon.

Fig. 2 is a perspective view of one end portion of the box, both ends being identical in construction, showing the end unfolded.

Fig. 3 is a fragmentary perspective and transverse section looking into the box at its open upper side, and

Fig. 4 is a fragmentary longitudinal section at one end of the box with a cover over its open upper side.

Like reference characters refer to like parts in the different figures of the drawing.

In the construction of the box a sheet of paper material of the requisite thickness and strength is provided and is properly scored to make a bottom 1 of rectangular form from each side of which sides 2 are bent vertically upward at right angles. Each of the sides 2 is bent back inwardly upon itself to provide a strengthening and reinforcing flap 3 which extends the entire length of and within each side, and after it is folded inwardly said flaps 3 are stapled or otherwise permanently secured to the sides 2. This makes a smooth and rounded upper edge for each of the sides of the box.

At each end of each of the sides 2 a flap 4 is extended and is adapted to be turned inwardly at right angles, the flaps at each end of the box being turned to extend toward each other.

At each end of the bottom 1 a rectangular section 5 is integrally connected and is adapted to be folded upwardly at the outer sides of the inturned flaps 4. At the outer edge of each of the end sections 5 a section 6 is integrally connected being connected with the part 5 for a portion of its length but cut therefrom adjacent each end for a short distance as best shown in Fig. 2. At each end of each of the sections 6 are extensions 7 and 8, the extension 7 being integrally connected to the section 6 and for substantially the full width thereof while the parts 8 are of a shorter length as shown and are positioned at the outer portions of and integrally connected with said extensions 7.

After the flaps 4 have been turned inwardly toward each other and the end section 5 turned upward at their outer sides, the section 6 is turned inwardly and downwardly within the inner sides of the flaps 4 and over their upper edges with the parts 7 positioned diagonally across the corners as shown in Figs. 1 and 3, and the parts 8 turned to bear against the adjacent portions of the sides 2 and located between the lower edges of the reinforcing flaps 3 and the bottom of the box. The free edge portions of the sections 6 are provided with short projecting tabs 9 and at the ends of the bottom 1 rectangular openings 10 are made to receive these tabs thereby interlocking the parts together.

With this construction the parts 7 located diagonally across the corners of the box and extending the full depth thereof serve as supports for the weight of other boxes and contents above. Any suitable cover may be applied to this box after it has been filled. The boxes may be shipped in their unfolded flat condition and are readily bent upon the scored lines between the bottom and sides, between the bottom and the end sections 5 and between the end sections 5 and the part 6 and otherwise so that the formation of the box into its completed form from the flat sheet of material is done readily and without the necessity of using tools or skilled labor.

The construction is very practical and useful. In the case of fruit and some other articles which may be contained in a box of this character, the sides are provided with openings as shown for venting. These openings, however, are no part of the present invention and in cases where not needed may be dispensed with.

The invention is defined in the appended claims

and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. A box having a rectangular bottom, sides extending vertically upward from the side edges of said bottom, said sides each having an inturned end flap at each end thereof, an outer end section connected to each end of the bottom and extending upwardly at the outer sides of said end flaps, an inner end section connected to the upper edge of said outer end section extending downwardly at the inner sides of said flaps, said inner section having at each end thereof and connected thereto a part extending angularly across a corner within the box, said parts bearing at one end upon the bottom of the box and extending substantially to the upper edges of the sides and ends of the box, each of said sides having located at the inner side and upper portion thereof a flap extending substantially the full length and turned downwardly at the inner side thereof, each of said angularly located parts having an extension thereto at its free end of less height which extensions are turned to lie against the inner sides of said sides of the box between the bottom thereof and the lower edges of said flaps.

2. A box of the class described made from a single sheet of paper material comprising, a bottom of rectangular shape, vertical sides integral with said bottom, end flaps one at each end of each side, the flaps at each end of the box being turned inwardly toward each other, an outer end section at each end of the box turned upwardly against the outer sides of adjacent end flaps, an inner end section connected with each outer end section bent over the upper edges of adjacent end flaps and downwardly at the inner sides thereof, each of said inner end sections at each end thereof having an extension integral therewith and separated from its associated outer end section, said extensions being positioned diagonally across the corners of the box and extending between the open upper side thereof and its bottom, and integral flaps extending longitudinally of and connected at the upper edges at each side of the box and turned downwardly at the inner sides thereof, the width of said flaps being less than the height of the sides, each of said extensions having an integral narrower portion of a vertical dimension substantially equal to the distance between the lower edges of said longitudinal flaps and the bottom of said box, and turned to lie against the sides of the box and extending in the direction of the ends thereof, as specified.

3. A box of the class described made from a single sheet of paper material having a bottom of rectangular form, a vertical side at each side edge of the bottom integral therewith and extending upwardly therefrom, an end flap at each end of each side integral therewith, the end flaps at each end of the box being turned inwardly toward each other, an outer end section integral with and having a length substantially equal to the width of the bottom and having a width substantially equal to the height of the sides extending upwardly from each end of the box at the outer sides of the adjacent end flaps, an inner end section integral with each outer end section intermediate the ends thereof and for a distance less than the length thereof with said inner end section being turned over the upper edges of said end flaps and downwardly at the inner sides thereof, each of said inner end sections having a part integral therewith extending from each end thereof and separated from the outer end sections, whereby when the inner end sections are located at the inner sides of said end flaps, said parts extend diagonally across the corners of the box, said parts being of a height substantially equal to the depth of the box, and each of said parts, one at each end of the inner end section, having an extension thereto of a less height than such part, said extensions being bent to lie against the inner sides of the box and extending toward the ends of the box, and means on the inner sides of the box to come against the upper edge of said extensions, thereby preventing upward movement thereof.

NEIL P. VAN WINGEN.