

Oct. 10, 1933.

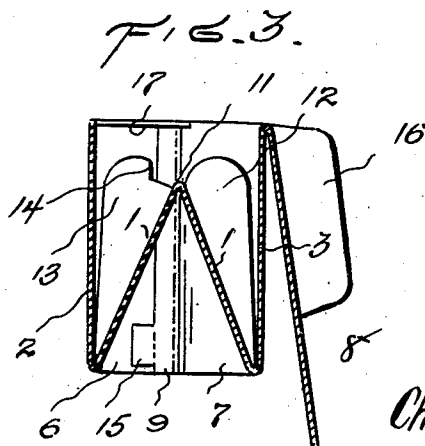
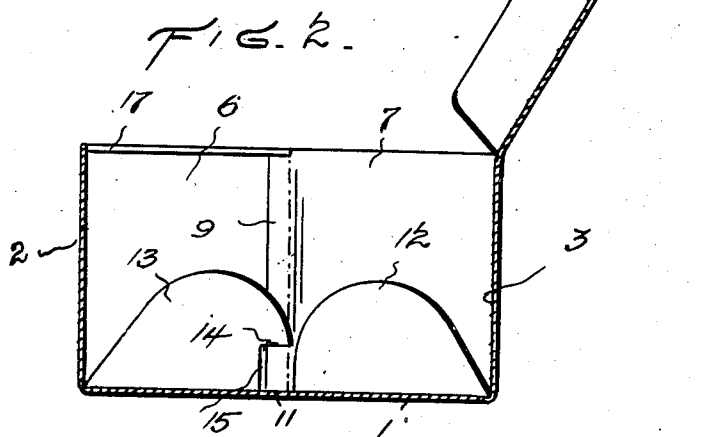
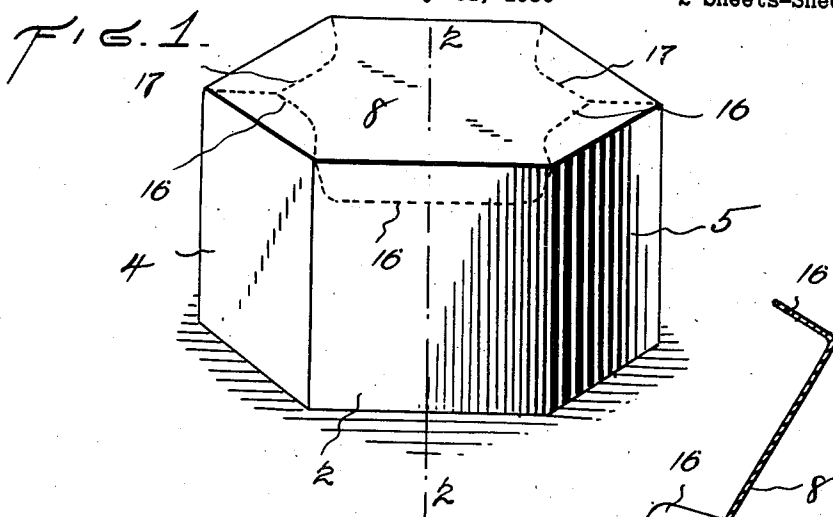
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1,929,941

COLLAPSIBLE CONTAINER

Filed May 31, 1930

2 Sheets-Sheet 1



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1,929,941

COLLAPSIBLE CONTAINER

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Application May 31, 1930. Serial No. 458,026

6 Claims. (Cl. 229—41)

The present invention consists of new and useful improvements in the construction of containers or cartons employed for packing and shipping merchandise. The improved box may be usefully employed for packing merchandise of various kinds and may be applied to containers of different sizes but the invention is especially applicable for larger sized containers used for packing comparatively light articles which are easily crushed such as hats, for example. The invention may also be applied to boxes of any polygonal shape but it is particularly applicable for boxes or containers of a hexagonal shape.

One object of the invention is to produce a box structure having the maximum degree of rigidity obtainable with the material employed which is usually paper board of a comparatively light weight. Another object is to construct the box complete including the body and the cover thereof of a single sheet or one piece blank and which blank is so designed that there is little waste of stock in the blanking operation. A still further object is to provide a structure which is collapsible into the smallest possible compass and so arranged that the box may be easily brought from its collapsed condition into the set up position ready for packing and in which latter position certain devices forming an integral part of the blank are provided to retain the container in the set up position.

An embodiment of the invention will be herein-after more fully described with reference to the accompanying drawings, wherein—

Figure 1 is a perspective view of the improved container of a hexagonal shape and which container is shown in its set up and closed condition;

Figure 2 is a cross sectional view taken through the line 2—2 of Figure 1, showing the cover in its open position;

Figure 3 is a sectional view showing the container in its partly collapsed position; and

Figure 4 is a plan view of the complete blank of which the container is constructed.

Referring to said drawings particularly Figure 4 which shows the box blank, in this example, the blank is divided into a number of sections of which section 1 is the body or main section. This section is of hexagonal or other polygonal shape and forms the bottom of the container. Said section 1 is connected at opposite sides to sections 2—3 and which sections form opposite side walls of the container. Said sections 2—3 have extending laterally therefrom and connected thereto sections 4—5 and 6—7 and which sections will form the remaining side walls of the container. The

section 3 has extending therefrom and connected thereto a section 8 which corresponds in size and shape with the bottom section 1 and said section 8 forms the cover of the container.

Sections 6—7 have at the sides thereof glue lap pieces 9 and these glue laps are located so as to come in line with the side edges 10 of the sections 4—5 when the blank is folded for initial assembling. In this operation the blank is folded over on line 11 which runs transversely across the center of the section 1. This folding operation forms the body of the container and the bottom is folded up into the said body. It should, however, be noted that before this folding operation is effected, flaps 12 and 13 extending from the free edges of the center section 1, must be folded inwardly so that when the sections 4—5 and 6—7 are brought together said flaps will lie in their folded position within the folded structure. In the collapsed position the flaps 12—13, sections 4—5 and 6—7 and the folded portions of the body or main section 1 are brought together and the cover section 8 may be folded back against the adjacent side wall. In this position all the members lie close together so as to permit the folding of the collapsed container into a close flat condition.

When it is desired to set up the box the operation is simple for all that is required is to push the folded bottom downwardly which will spread the structure open and to retain the same in this unfolded set up position, interlocking devices are provided. One form of device which has been found preferable in practice is a hook 14 carried by the sections 13 and these hooks engage projections 15 extending from the glue laps 9.

In order to close the container the cover is folded over and the folding tuck-in ends or pieces 16 carried by the cover member are inserted into the box which effectively closes the sides at these points and the other sides, not so closed, are covered by tuck-in flaps 17 extending from the sections 4—5.

It should be noted that the construction herein-before described has numerous advantages, the main one being that the box is of simple construction and may be readily set up from its collapsed position into its set up or operative position by an inexperienced person. Further, the construction is such that considerable economy results from this construction because of the comparative small consumption of board and furthermore the blank may be readily assembled and glued by machine operation.

Various modifications may be made in carrying

out the constructional details of the invention hereinbefore described or in the application of the invention, wholly or partly, and it is to be understood that any modification coming fairly within the terms of the appended claims shall be covered thereby.

I claim:

1. A container composed of a single blank, said blank being divided into end sections and an intermediate section forming respectively when set up the side walls and bottom of the container, said bottom-forming section being creased transversely so as to fold on itself to permit collapsing of the container, retaining means extending from said bottom-forming section, and companion retaining means projecting laterally from one of said end sections and adapted to automatically engage with said bottom-retaining means when the bottom section is extended to support said bottom section and the merchandise placed thereon.

2. A blank for a collapsible container, said blank formed of three sections comprising end sections and an intermediate section, said intermediate section having flaps extending from each free edge thereof, two of said flaps on opposite sides having hooked ends and one of said end sections at each side thereof having a projecting tab, said hooked ends being arranged to automatically interlock with said tabs to prevent downward collapse of the intermediate section and to retain the container in set-up condition when the same is assembled.

3. A collapsible container for merchandise comprising a collapsible bottom wall and connected side walls, said bottom wall being foldable upwardly between said side walls, and co-operating hook and tab portions associated with the bottom and side walls, said hook and tab portions being movable to automatically interlock with one another when the bottom is moved from folded into extended substantially flat merchandising supporting position.

4. A collapsible container for merchandise consisting of a body comprising a collapsible bottom wall and connected side walls, said bottom wall being foldable upwardly between said side walls, and means for retaining and supporting said bottom wall when extended into opened merchandise supporting position, said means comprising co-operating hook and tab portions extending from the bottom wall and side walls, said hook and tab portions being relatively movable to automatically interlock with one another when the bottom is moved from folded into extended merchandising supporting position.

5. A collapsible polygonal shaped container having a bottom wall and plurality of side walls, united to form the body of the container, certain of said side walls being permanently connected to said bottom wall, said bottom wall being arranged to fold upon itself up into the body thereby permitting collapsing of said body, a hook portion connected to said bottom, and a laterally projecting tab portion connected to one of said side walls, said tab portion being normally out of engagement with said hook portion when the container is in collapsed condition, but said tab and hook portions being relatively and automatically movable into interlocking engagement when the bottom wall is moved from folded into extended merchandising supporting position.

6. A collapsible container of the class described having a bottom wall and connected side walls, said bottom wall folding on itself between said side walls to permit collapsing of the container, hook and tab portions extending from the bottom wall and side walls adapted to automatically interlock with one another when the bottom wall is moved from folded into extended merchandising supporting position, a cover for the open end of said body connected to the upper edge of one side wall and arranged to close the container on all sides, said cover having tuck-in flaps for retaining the same in closed position.

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