April 2, 1935. H. A. CARRUTH 1,996,097

COLLAPSIBLE BOX OR CONTAINER

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FIG. 1.

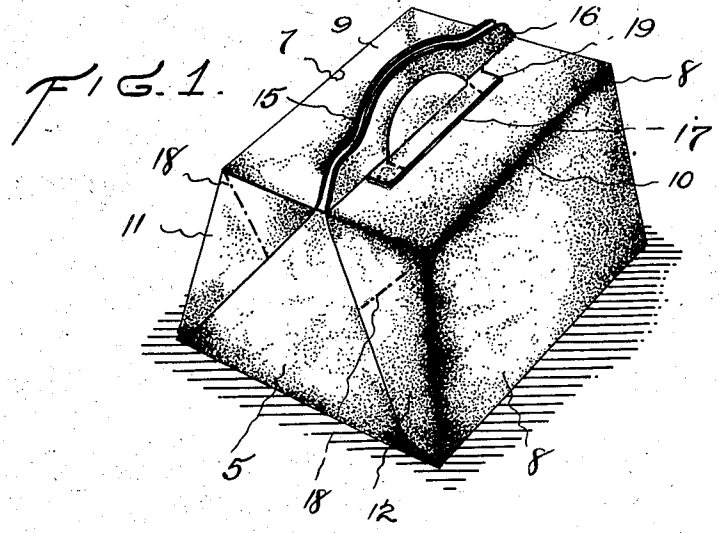
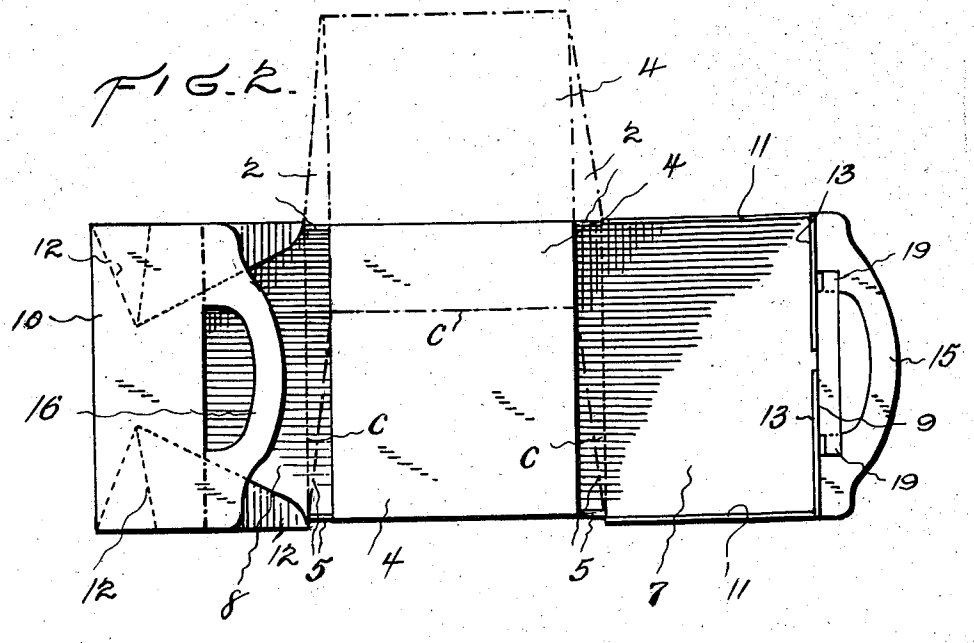


FIG. 2.



Inventor
Herman A. Carruth,
By his Attorneys
Arnold Tanner.

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FIG. 3.

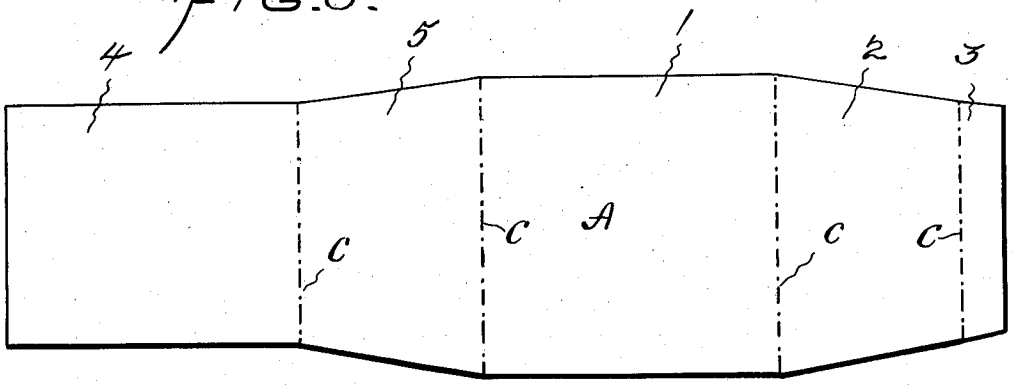
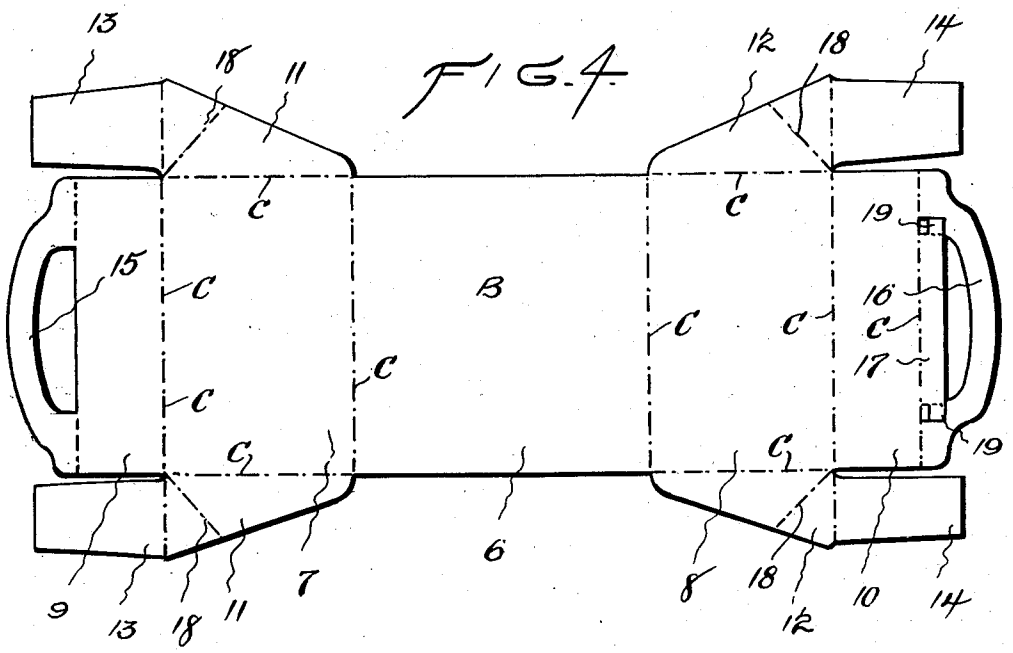


FIG. 4.



Inventor

Herman A. Carruth

By his Attorney

Arnold Tanner.

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UNITED STATES PATENT OFFICE

1,996,097

COLLAPSIBLE BOX OR CONTAINER

Herman A. Carruth, Hamden, Conn., assignor to Box Blank Corporation, New York, N. Y., a corporation of New Jersey

Application October 22, 1929, Serial No. 401,503

3 Claims. (Cl. 229—52)

The present invention relates to an improved container useful for packaging merchandise of various kinds and particularly to a container of comparatively great depth especially adapted for the packaging of hats and the like.

An object of this invention is to produce an efficient and convenient container which, when set up, will possess the maximum degree of rigidity with a minimum of material being used.

Another object of this invention is to provide a container which is so constructed that it may be preformed, folded and assembled entirely by machine operation and which may be furthermore stored and shipped in flat collapsed condition.

Another object of this invention is to provide a container particularly designed for transporting a hat having a convenient carrying handle associated therewith.

Heretofore various types of containers adapted to contain hats have been in use but the manufacture of such containers have been attended with difficulties which renders the cost thereof very high. The reason for such high cost in the manufacture of such containers has been that they have been largely assembled by hand. Furthermore this type of container as heretofore used has been difficult and time consuming to set up because of the use of locking tongues and flaps which must be manipulated by hand to effect setting up of the container.

According to the present invention my improved container is so constructed that it may be assembled and folded in collapsed condition entirely by machine operation. The container is then shipped in collapsed condition and when needed for use the user effects the proper setting up of the container by a simple manipulation of the parts. The container is formed from two separate blanks which are so shaped that there is comparatively little waste in the blanking out operation which is performed on automatic cutting and scoring machines.

The improved container will be particularly described hereinafter with reference to the accompanying drawings, wherein:

Figure 1 is a perspective view showing the improved container in set up position ready for use;

Figure 2 is a plan view of the improved container in folded or collapsed position;

Figure 3 is a plan view of the blank from which the inner body section of the improved container is formed; and

Figure 4 is a plan view of the blank from which the outer body covering section is formed.

Similar reference characters refer to similar parts throughout the drawings and specification.

Referring to the drawings, the improved container is generally formed from two separate blanks comprising a body forming blank A and a covering blank B, as illustrated more particularly in Figs. 3 and 4. Where a container of truncated form is desired, these blanks are cut to the general shape shown in Figs. 3 and 4 and suitably scored along the score lines C.

The blank A comprises generally the body forming portion 1 and the end wall forming portions 2 and 5 hinged to the body portion 1 along the score lines C. A top wall portion 4 is hinged to the end wall portion 5 along the score lines C. A glue flap 3 hinged to the end wall portion 2 along the score lines C is adapted to be glued to the top wall portion 4 to provide a collapsible inner body for the container. The end wall portions 2 and 5 may be tapered along the side edges thereof so as to produce a container of generally truncated shape when set up. It is understood, however, that the container may be made rectangular or any shape desired.

The blank B, shown in Fig. 4, is likewise provided with a bottom forming portion 6 having the side wall portions 7 and 8 hinged thereto along the score lines C. A top wall portion 9 is hinged to the side wall portion 7 along the score line C and a top wall portion 10 is similarly hinged to the side wall portion 8 along the score line C. Lateral flap portions 11 are hinged to the side edges of the side walls 7 along the score line C and lateral flaps 12 are similarly hinged to the end edges along the side wall portion 8 along the score line C. Cutout portions 15 and 16 hinged to the top wall portions 9 and 10 respectively along score line C may be bent into position so as to provide a carrying handle for the container. One of the handle portions 16 is provided with a locking flap 17 having projecting end portions 19 adapted to engage with the handle portion 15 to retain the container in set up position. Tongues 13 are hinged to the lateral flaps 11, and, when the container blank is assembled, are turned inwardly and glued or otherwise secured to the inside face of the top wall portion 9. Similarly, tongues 14 hinged to the lateral flap portions 12 are glued or otherwise secured to the underside of the top portion 10, providing a hood or covering which extends over the body section A. A hood or cover is thus formed by the top wall portions 9 and 10 and the

lateral flap portions 11 and 12 which extend over the body portion A. When the hinged parts are thus arranged, the handle portions 15 and 16 are in juxta-position, as shown in Fig. 1. The hinged parts of section B are also locked in closed covering position by means of the ears 19 extending from the flaps 17 which are adapted to grip the handle portion 15.

To permit shipment of the container in collapsed condition the lateral flap portions 11 and 12 are each provided with a score line 18 extending diagonally at an angle of substantially 45 degrees. The hinged parts of the outer covering section B may then be collapsed in flat condition, as shown in Fig. 2, by folding the lateral flap portions 11 and 12 inwardly to rest over the respective end wall portions 7 and 8, and then folding the top wall portions 9 and 10 over the respective flap portions 11 and 12. It is understood that the same objective may be accomplished by providing diagonal score lines in the top wall portions 9 and 10 rather than in the lateral flap portions 11 and 12.

In the operation of folding or pre-forming the improved container, the body blank A passes through the assembling machine and in this operation the blank is folded so that the two ends are brought together and the glue lap 3 is adhesively united to the free end of the top portion 4. The tongues 13 and 14 of blank B are folded inwardly and adhesively secured to the inside face of the top wall portions 9 and 10 by machine operation. The bottom portion 1 of blank A is then placed upon the bottom portion 6 of blank B and thus secured together by a rivet or by glue, providing a double bottom for the container.

When the container is to be set up, the body portion A is arranged at right angles to the covering section B as shown by broken lines in Fig. 2. It is only necessary for the operator to raise the end wall portions 7 and 8 of blank B and end wall portions 2 and 5 of blank A and the parts will assume the proper set up position of their own accord. When erected, the top wall parts 10 and 11 of the cover section lie over or overlap.

The body section, as shown in Figure 1, and the two handle portions are brought together, as shown, so that the locking tab 17, from one handle, can be folded down and passed through the opening in the other handle portion. When so folded the ends 19 of the tab 17 are engaged to retain the handles together and by the same means the covering sections are held together.

Various modifications may be made in carrying out the details of the invention hereinbefore described 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 collapsible container of the class described composed of a body section having open sides; a covering section composed of hinged parts arranged to over-lap said body section; handle portions carried by said covering section arranged to be brought together when said covering section is in closed position; and means associated with and engaging said handle portions for retaining the covering section in closed position, said covering section having pre-formed top and side walls which over-lap said body section in the closing position.

2. A collapsible container of the class described comprising a preformed folding body section having open sides, a preformed covering section having side and top walls which over-lap said body section in the closing position; said covering section carrying corresponding handle portions which are adapted to be brought together in the closing position; and means associated with said handle portions for retaining the cover members in the closing position.

3. A collapsible container of the class described composed of a body section having open sides, a covering section composed of hinged parts arranged to overlap said body section, handle portions carried by said covering section arranged to be brought together when said covering section is in the closed position, and tab portions adapted to interlock with said handle portions for retaining the cover section in closed position.

HERMAN A. CARRUTH.