

May 25, 1943.

M. ULLMAN

2,320,018

FOLDING BOX

Filed April 8, 1941

FIG. 1

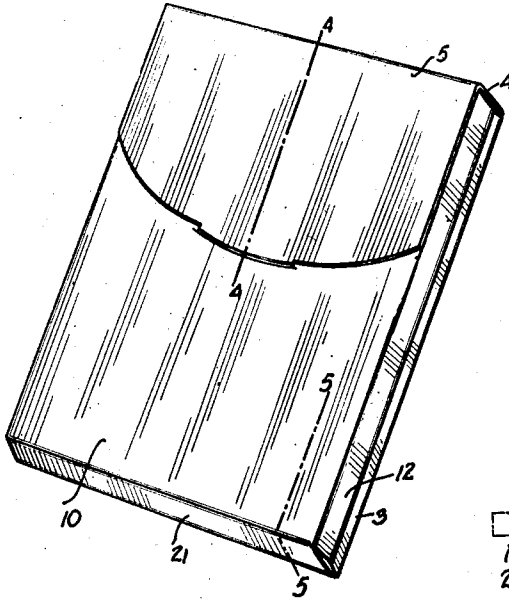


FIG. 3

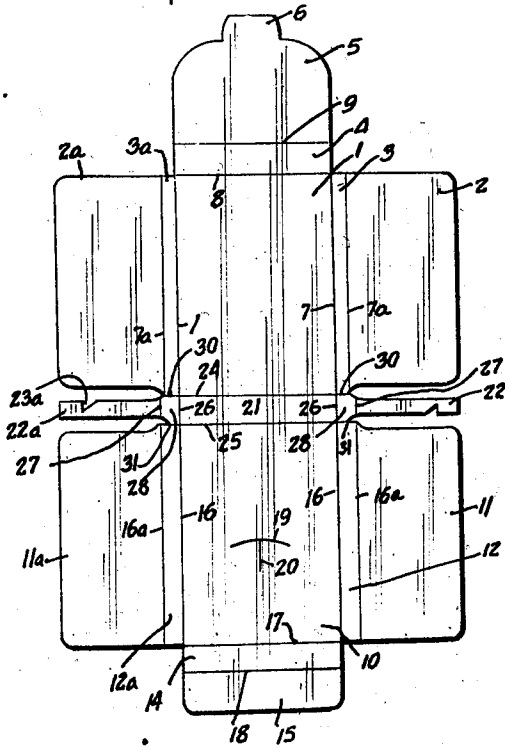


FIG. 2

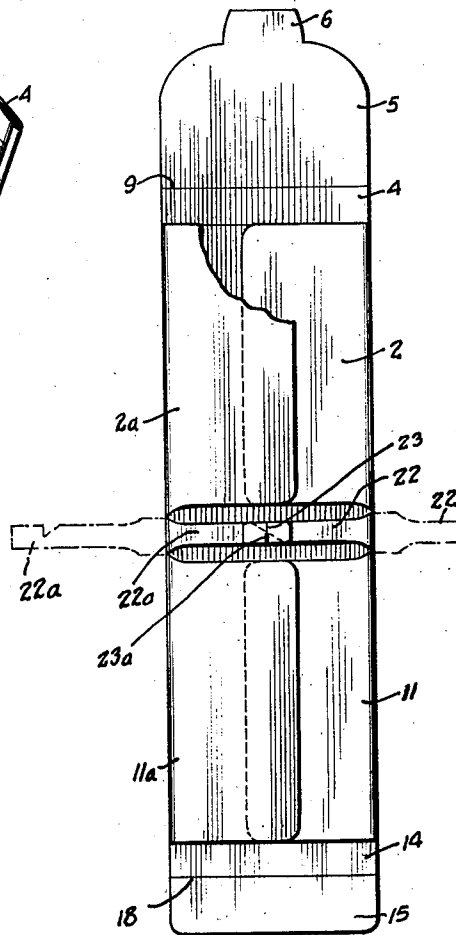


FIG. 4

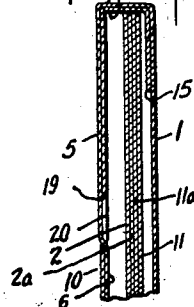
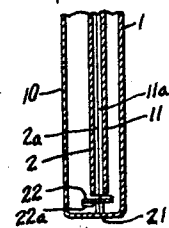


FIG. 5



INVENTOR.

BY

Martin Ullman
Mock & Blum

ATTORNEYS

UNITED STATES PATENT OFFICE

2,320,018

FOLDING BOX

Martin Ullman, New York, N. Y., assignor to The Atlas Underwear Company, Piqua, Ohio, a corporation of Ohio

Application April 8, 1941, Serial No. 387,494

2 Claims. (Cl. 229—16)

My invention relates to a new and improved folding box.

One of the objects of the invention is to provide a folding box which can be used for packing and shipping various articles, such as articles of wearing apparel.

Another object of my invention is to provide a collapsible box or container which can be made by folding a single blank, said box or container including two box portions and an intermediate hinge portion which connects said box portions. Said hinge portion is provided at its ends with upstanding side flaps or wall-members, which are overlapped by the respective adjacent side walls of said box portions, when the container is closed. Said overlapping produces a tight and dust-proof joint in the hinge portion of the container, when the container is closed. Said flaps are also provided with extensions which are bent inwardly, and which abut the bottom edges of the inner walls of the box portions.

Other objects of the invention will be set forth in the annexed description and drawing which illustrate a preferred embodiment thereof, it being understood that the above statement of the objects of my invention is intended generally to explain the same without limiting it in any manner.

Fig. 1 is a perspective view of the improved container, in the closed position.

Fig. 2 is a plan view of the inner face of the container after the parts of said container have been folded to a preliminary position, prior to closing the container. In Fig. 2, the width of the container is drawn to a smaller scale than in Fig. 1.

Fig. 3 is a plan view of the complete blank which is used for making the container.

Figs. 4 and 5 are respective sectional views on the lines 4—4 and 5—5 of Fig. 1.

For convenience, it is assumed that the hinge-portion of the container is at the bottom thereof, and that the box portion which is shown at the top of Fig. 2, is the rear box portion. The rear box portion comprises a rear external wall 1, internal walls 2 and 2a, side walls 3 and 3a, and an external top cover 4, which has a front outer flap 5 which has an end-tab 6. The blank is scored along the lines shown in Fig. 3, save that it is slitted along the lateral lines 30 and 31. The front box portion comprises an external front wall 10, internal walls 11 and 11a, side walls 12 and 12a, and an internal cover 14 which has an end tab 15.

The external front wall 10 is provided with an

arcuate lateral slit 19 which has a longitudinal slit extension 20.

The hinge-portion or bottom wall 21 is provided at its ends with side walls 28 which have integral straps or extensions 22 and 22a. Said extensions 22 and 22a are provided at respective opposed lateral edges thereof, with respective notches 23 and 23a. The blank includes score lines 24, 25, 26 and 27. The lateral edges of internal walls 2, 2a, 11 and 11a, which are adjacent the straps 22 and 22a, are designated as the inner lateral edges of said internal walls.

In using the device, the blank is laid out flat, as shown in Fig. 3. A foldable garment or other article is then placed upon the inner face of the blank, which is shown in Fig. 3. This garment preferably fits closely in the area defined by the lines 8, 17, 16 and 7. This garment may be an article of underwear or the like, which is compressible and resilient.

The blank is then bent along the lines 7 and 7a, 16 and 16a, 26 and 27, and the strap extensions 22 and 22a are interlocked by means of their notches 23 and 23a. The walls 2 and 2a are then overlapped, and the walls 11 and 11a are then overlapped. This overlapping is not necessary, because said internal walls can be made of reduced width so that they will not overlap.

The blank is then bent along the lateral lines 24 and 25, until the respective internal walls of the respective box portions abut each other.

The edges of each side wall 28 are inclined towards each other. The bottom edges of the side walls 3 and 3a are substantially horizontal when the internal walls 2 and 2a abut the internal walls 11 and 11a, and the bottom wall 21 is in a horizontal plane. The bottom lateral edges of the inner walls 2 and 2a are then inclined downwardly, adjacent the side walls 3 and 3a.

The front box portion is of substantially the same construction as the rear box portion, save for the greater depth of the front box portion. Said box portions may be of equal depth. Further details are shown in Fig. 3.

The longitudinal distance between each lateral edge of members 22 and 22a, and the straight part of the adjacent lateral edge of the respective inner wall, is preferably equal to substantially one-half the height of member 28, when said member 28 is held perpendicular to bottom wall 21. As shown in Fig. 3, said distance is substantially equal to the longitudinal dimension of the bottom wall 28 in Fig. 3.

The edges of the members which are parallel

to lines 16 are designated as longitudinal edges. The longitudinal edges which are furthest from the longitudinal axis of the blank, are designated as laterally outer longitudinal edges.

The thickness of the garment is preferably equal to the height of the side walls 28 of the bottom of the box, so that the members 22 and 22a cannot be pressed downwardly, below their horizontal positions, when said members 22 and 22a are interlocked. This interlocking position is shown in full lines in Fig. 2. The lower end-portions of the side-walls 3 and 3a, 12 and 12a, tightly abut the bottom side-walls 28, when the internal walls 2, 2a, 11 and 11a abut each other. The straight portions of the inner lateral edges of the abutting internal walls 2 and 2a, 11 and 11a, abut the top faces of the straps 22 and 22a. The downwardly inclined edge-portions of the inner walls 2 and 2a, 11 and 11a, then tightly abut the inwardly bent bottom side-walls 28. This provides a tight and dust-proof joint at the bottom of the container.

The bottom walls 28 may be pressed inwardly from upstanding position, by the side-walls and the inner walls of the respective box-portions, and the straps 22 and 22a may be forced to downwardly inclined positions by the straight portions of the inner lateral edges of the internal walls 2 and 2a, 11 and 11a.

The inner cover 14 is then bent along line 17 to horizontal position, and the flap 15 is bent down along line 18 to abut the inside face of the rear wall 1. The blank is then bent along the lateral lines 8 and 9 so that the upper or top cover 4 is bent over the inner cover 14, and the extension 6 of flap 5 is then inserted into slit 19.

The entire blank can be made of a single sheet of cardboard or the like, which can be cut and scored in the usual manner. However, the invention is not necessarily limited to an integral blank or to the use of any specific material. When the box is completely set up, as shown in Fig. 1, the

end wall flaps 28 are bent inwardly and the bottom edges of the side walls 3 and 3a, and of the side walls 16 and 16a, then externally overlap and abut said end wall flaps 28. The internal surfaces of the end wall flaps 28 then abut the garment.

I have described a preferred embodiment of my invention, but it is clear that numerous changes and omissions can be made without departing from its spirit.

I claim:

1. A blank for making a container, said blank comprising a bottom wall-member, said bottom wall-member having bottom wall-flaps turnably connected to the respective laterally outer longitudinal edges of said bottom wall-member, the laterally outer longitudinal edges of said wall-flaps having extensions turnably connected thereto, body-portions turnably connected to the respective lateral edges of said bottom wall-member, each said body-portion having side-wall flaps, turnably connected to its laterally outer longitudinal edges, each said side-wall flap having an inner-wall flap turnably connected to its laterally outer longitudinal edge, the lateral edges of said inner-wall flaps which are directly adjacent said extensions having straight-line portions which are longitudinally spaced from the respective lateral edges of said extensions by a distance which is equal substantially to one-half the longitudinal dimension of said bottom wall, the lateral edges of the side-wall flaps which are directly adjacent said bottom-wall flaps having straight-line portions which substantially abut straight-line parts of the lateral edges of said bottom-wall flaps.

2. A blank according to claim 1, in which the laterally inner end-portions of the adjacent edges of said extensions and of said inner-wall flaps are inclined towards each other to form acute angles.

MARTIN ULLMAN.