Jan. 27, 1948. L. W. FRANCK 2,435,135

COLLAPSIBLE SHIPPING AND DISPLAY CARTON

Filed July 4, 1945 2 Sheets-Sheet 1

Fig. 1

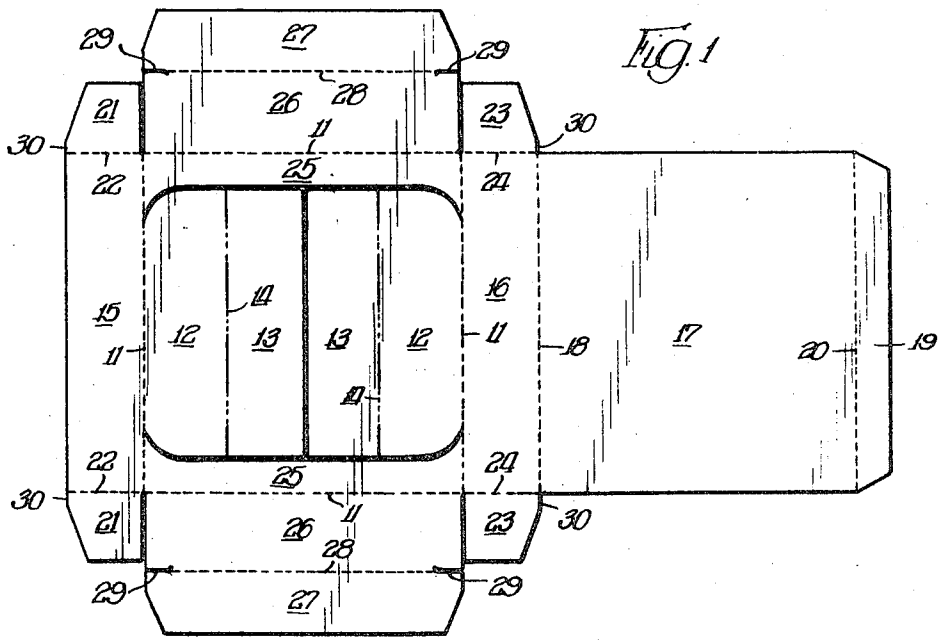
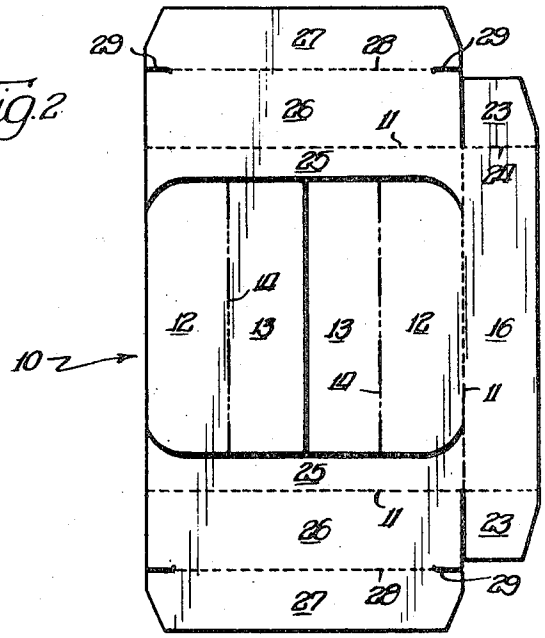


Fig. 2



INVENTOR.
Lester W. Franck,
BY
Cromwell, Greist & Warden
attys

Jan. 27, 1948. L. W. FRANCK 2,435,135

COLLAPSIBLE SHIPPING AND DISPLAY CARTON

Filed July 4, 1945 2 Sheets-Sheet 2

Fig. 3

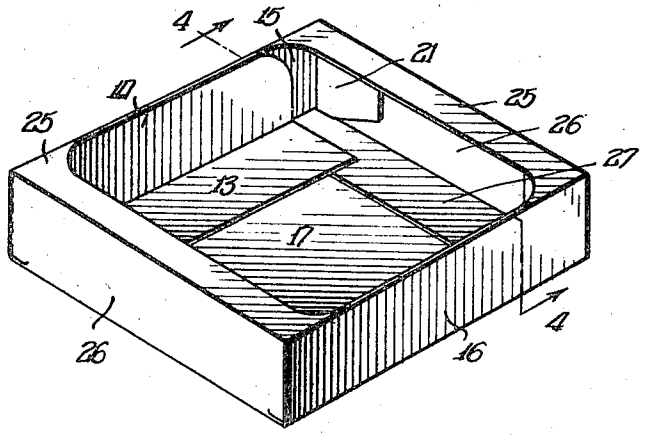


Fig. 4

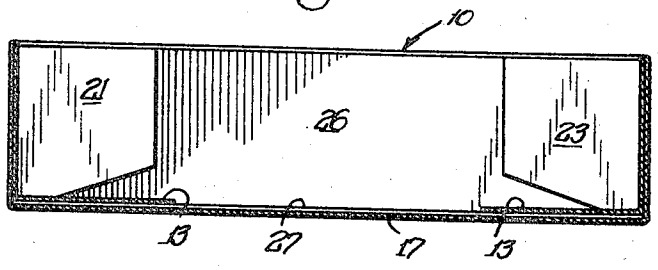


Fig. 5

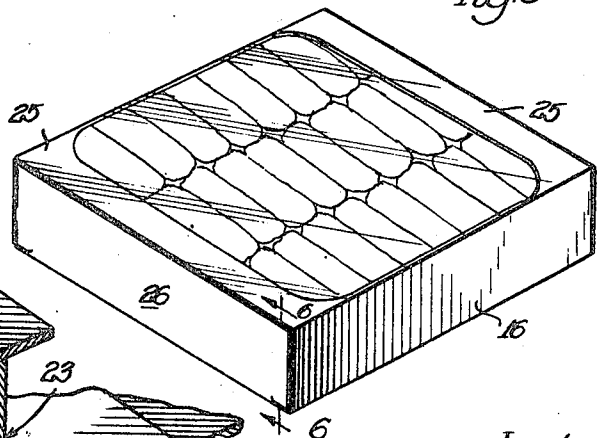
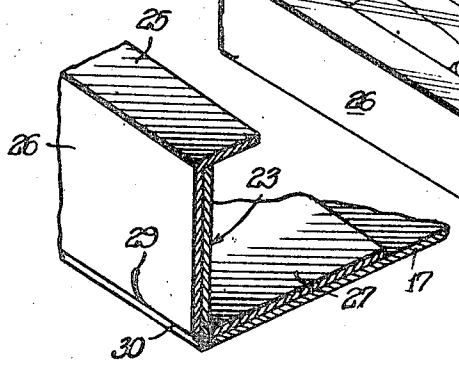


Fig. 6.



INVENTOR.
Lester W. Franck,
BY
Cromwell, Greist & Warden
attys

Patented Jan. 27, 1948

2,435,135

UNITED STATES PATENT OFFICE

2,435,135

COLLAPSIBLE SHIPPING AND DISPLAY CARTON

Lester W. Franck, Los Angeles, Calif., assignor to Independent Paper Box Co., Los Angeles, Calif., a corporation of California

Application July 4, 1945, Serial No. 603,219

3 Claims. (Cl. 229—16)

1

The present invention relates to improvements in cartons, having particular reference to a collapsible shipping and display type of carton with a reinforcing wall construction connected to a top wall section, and the provision of such an article is a principal object of the invention.

More specifically, it is an object of the invention to provide a shipping and display carton having a top wall section with side walls oppositely connected thereto, one of the side walls extending outwardly of the top wall section and the other side wall lying adjacent the top wall section with a bottom wall connecting both side walls and also lying adjacent the top wall section when the carton is in collapsed condition, the top wall section comprising inwardly extending panels which lie adjacent the bottom wall when the carton is collapsed and adjacent the side walls when the carton is in erect positon to provide a double reinforced carton wall construction.

Another object of the invention is to provide a carton as above described in which the panels of the top wall section are supplemented by marginal end portions extending from one side wall to the other side wall and connecting them together to provide end border braces and a frame-like construction.

Another object of the invention is to provide a carton as above described with end walls having tuck-in flaps and interlocking slots, and with side walls having tuck-in flaps which have shoulder portions that will interlockingly engage the interlocking slots to hold the carton walls in erect and interlocked position.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises an article of manufacture possessing the features, properties, and the relation of elements which will be exemplified in the article hereinafter described and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a plan view of a die-cut blank of paper board material illustrating a preferred embodiment of the invention before being folded and secured in collapsed position;

Fig. 2 is a plan view of the blank of Fig. 1 folded and secured into collapsed position ready for erecting into a carton;

Fig. 3 is a perspective view of a completed carton erected from the collapsed form shown in Fig. 2;

2

Fig. 4 is a transverse sectional view taken along the lines 4—4 of Fig. 3 and looking in the direction of the arrows;

Fig. 5 is a perspective view of a carton similar to Fig. 3 showing the same filled with a commodity and covered with an outer wrapper of Cellophane or the like; and

Fig. 6 is a perspective view of a fragment, partly in section, of a corner of the carton shown, for example, in Fig. 5, taken along the lines 6—6 and looking in the direction of the arrows.

Referring more particularly to Fig. 1 of the drawings there is indicated generally at 10 a top wall section defined by crease or score lines 11. An intermediate portion of the top wall section 10 is cut to provide panels 12, 12, and side extension panels 13, 13, separated, for example, by crease lines 14, 14.

Oppositely disposed of the score lines 11, 11, adjacent the panels 12, 12, are side walls 15 and 16. Extending beyond the side wall 16 is a bottom wall 17 which is separated therefrom by the crease line 18. Extending from the bottom wall 17 is a glue flap 19 separated therefrom by a crease line 20.

The side wall 15 has tuck-in flaps 21, 21 extending therefrom and hingedly secured thereto along crease lines 22, 22.

The side wall 16 has similar tuck-in extensions 23, 23 also hingedly secured thereto along crease lines 24, 24.

The remainder of the top wall section 10 consists of marginal end portions 25, 25 which provide border braces and lend a frame-like appearance to the carton when it is ultimately set up as will more fully appear hereinafter.

Projecting from the border braces 25, 25 are end wall panels 26, 26, having tuck-in flaps 27, 27 extending therefrom and hingedly secured thereto along the crease lines 28, 28. Extending a substantial distance inwardly from the edges of each end wall, and preferably along the crease lines 28, 28, are cut-out areas 29, 29 which provide interlocking portions to maintain the carton in set-up position, also as will more fully appear hereinafter. These slots 29, 29 are adapted interlockingly to receive the shoulder portions 30, 30 on the tuck-in flops 21, 21 and 23, 23.

After the carton has been cut and scored, or creased, as above described, it can very conveniently be run through a straight line gluing machine so that glue can be applied to the glue flap 19. Thereafter the side wall 15 and the bottom

wall 17 are folded toward each other so that the side wall 15 is adhesively secured to the glue flap 19. This leaves the carton in collapsed condition ready for shipping purposes and from this condition it can readily be set up into position. It will be observed that in this condition one side wall 16 extends outwardly of the top section 10. It will also be understood that the side wall 15 and the bottom wall 17 lie underneath and adjacent the top section 10. The end walls 26, 26, together with their tuck-in flaps 27, 27, extend outwardly of the top wall section 10.

When the carton is being set up into erect position (see Fig. 3) it will be observed that the panels 13, 13 and 14, 14 will have been pressed downwardly and outwardly away from each other. The panels 14, 14 will come to rest adjacent the side walls 15 and 16 respectively and the panels 13, 13 will come to rest adjacent the bottom wall 17. Thereafter the tuck-in flaps 21, 21 and 23, 23, extending from each end of the side walls 15 and 16 respectively, are turned inwardly around the crease lines 22, 22 and 24, 24 respectively. The end walls 26, 26 are then turned downwardly and the tuck-in flaps 27, 27 are turned inwardly so that they overlie the bottom wall 17 and preferably come to rest beneath the ends of the panel sections 13, 13.

When the carton side walls and end walls, together with their respective tuck-in flaps have been erected to this position and a slight pressure brought to bear thereagainst they will be caused interlockingly to engage each other. This can more readily be seen by referring to Fig. 6 in which the cut-out areas, or slots, 29, 29 of each end wall section receive the shoulder portions 30, 30 of one of the tuck-in flaps, for example, that indicated at 23 in this view. This causes the tuck-in flap 23 securely to be urged against the panel 27 holding the entire assembly in interlocked position.

After the box has thus been set up, the panels 13, 13 and 14, 14 are further held in the position indicated by means of the commodity packaged therein. In order to eliminate a cover and impart additional display characteristics to the contents of the carton, the same may conveniently be wrapped in Cellophane, or the like material, as indicated in Fig. 5. Such cartons are then ready for packaging and shipping in larger cases, crates or boxes, and upon being removed therefrom can conveniently be set up immediately into display position.

Such a carton cut, creased, folded and secured in this manner has many advantages. It facilitates running the cut blank through the gluing machine by keeping the stock in position where it is cut and creased. The panels 13 and 14 give an excellent reinforced inside wall as well as a finished inner double wall surface appearance. Furthermore, the marginal end braces 25 lend a frame-like appearance to the carton and makes it especially attractive, giving a finished appearance thereto, especially when the same has been wrapped with a transparent material such as Cellophane, whereby the contents thereof can be displayed.

It will thus be seen that the objects hereinbefore set forth may readily and efficiently be attained. Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description, or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A shipping and display carton, which constitutes a top wall section, side walls oppositely connected to said top wall section, one of said side walls extending outwardly of said top wall section and the other side wall lying adjacent the top wall section with a bottom wall connecting both side walls and also lying adjacent said top wall section when said carton is in collapsed condition, said top wall section comprising two inwardly extending panels each of which is provided with a longitudinal crease line disposed transversely of said section dividing the same into upper and lower parts hingedly connected to each other which lie adjacent said bottom wall when said carton is in collapsed condition, and when said carton is in erect position, said upper parts of said panels lying against said side walls to provide a double reinforced carton wall construction and said lower parts lying against said bottom wall, and end walls having tuck-in flaps oppositely extending from remaining edges of the top wall section and which project outwardly therefrom when the carton is in collapsed condition, and when the carton is in erect position depending from said top wall section with the tuck-in flaps extending inwardly thereof and overlying said bottom wall.

2. A shipping and display carton, which constitutes a top wall section, side walls oppositely connected to said top wall section, one of said side walls extending outwardly of said top wall section and the other side wall lying adjacent the top wall section with a bottom wall connecting both side walls and also lying adjacent said top wall section when said carton is in collapsed condition, said top wall section comprising inwardly extending panels each of which is provided with a longitudinal crease line disposed transversely of said section dividing the same into upper and lower parts hingedly connected to each other and marginal end portions having free edges extending from one side wall to the other side wall and connecting them together to provide end border braces, said upper parts of said panels lying adjacent said bottom wall when said carton is collapsed and against said side walls as well as said bottom wall when erected to provide a reinforced carton wall construction and said lower parts lying against said bottom wall, and end walls having tuck-in flaps oppositely extending from said end border braces and which project outwardly therefrom when the carton is in collapsed condition, and when the carton is in erect position depending from said top wall section with the tuck-in flaps extending inwardly thereof and overlying said bottom wall.

3. A shipping and display carton, which constitutes a top wall section, side walls oppositely connected to said top wall section, one of said side walls extending outwardly of said top wall section and the other side wall lying adjacent the top wall section with a bottom wall connecting both side walls and also lying adjacent said top wall section when said carton is in collapsed condition, said side walls having tuck-in flaps with shoulder locks extending therefrom, which flaps are defined by crease lines along the end

of each side wall, said top wall section comprising inwardly extending panels each of which is provided with a longitudinal crease line disposed transversely of said section dividing the same into upper and lower parts hingedly connected to each other which lie adjacent said bottom wall when said carton is in collapsed condition, and when said carton is in erect position, said upper parts of said panels lying against said side walls to provide a double reinforced carton wall construction and said lower parts lying against said bottom wall, end walls having tuck-in flaps oppositely extending from remaining edges of the top section when the carton is in collapsed condition, said tuck-in flaps being defined by crease lines along the base of said end walls and having interlocking slots extending inwardly from the wall edges a substantial distance adjacent the end wall crease lines, and

when the carton is in erect position said end walls depending from said top wall section with their tuck-in flaps extending inwardly thereof and overlying said bottom wall with said interlocking slots engaging said shoulder portions firmly to hold said carton walls in erect and interlocked position.

LESTER W. FRANCK.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,103,708	Thumb	July 14, 1914
1,892,092	Barad	Dec. 27, 1932
2,135,041	Myers	Nov. 1, 1938
2,234,402	Frankenstein	Mar. 11, 1941