Oct. 29, 1957 J. P. FISCHER 2,811,295

CARTON FOR SUPPORTING A CONTAINER

Filed June 1, 1954 2 Sheets-Sheet 1

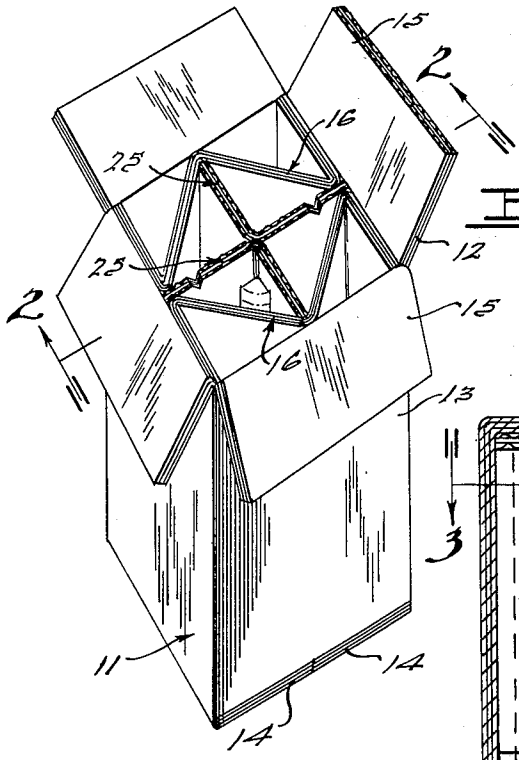


Fig. 1.

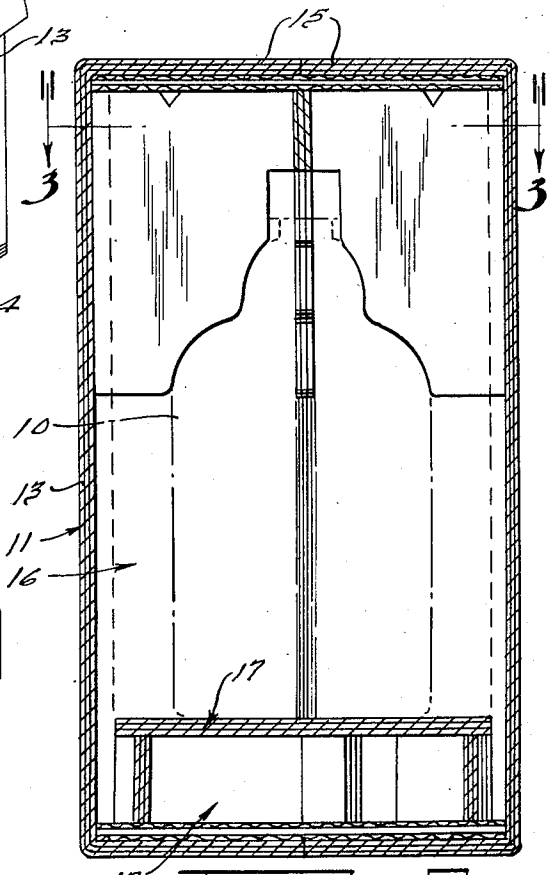


Fig. 2.

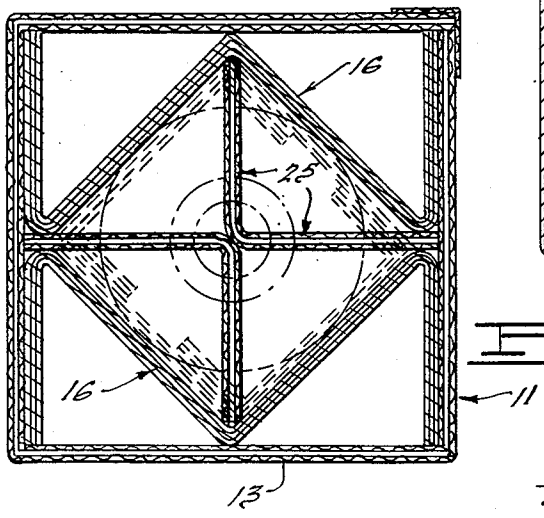


Fig. 3.

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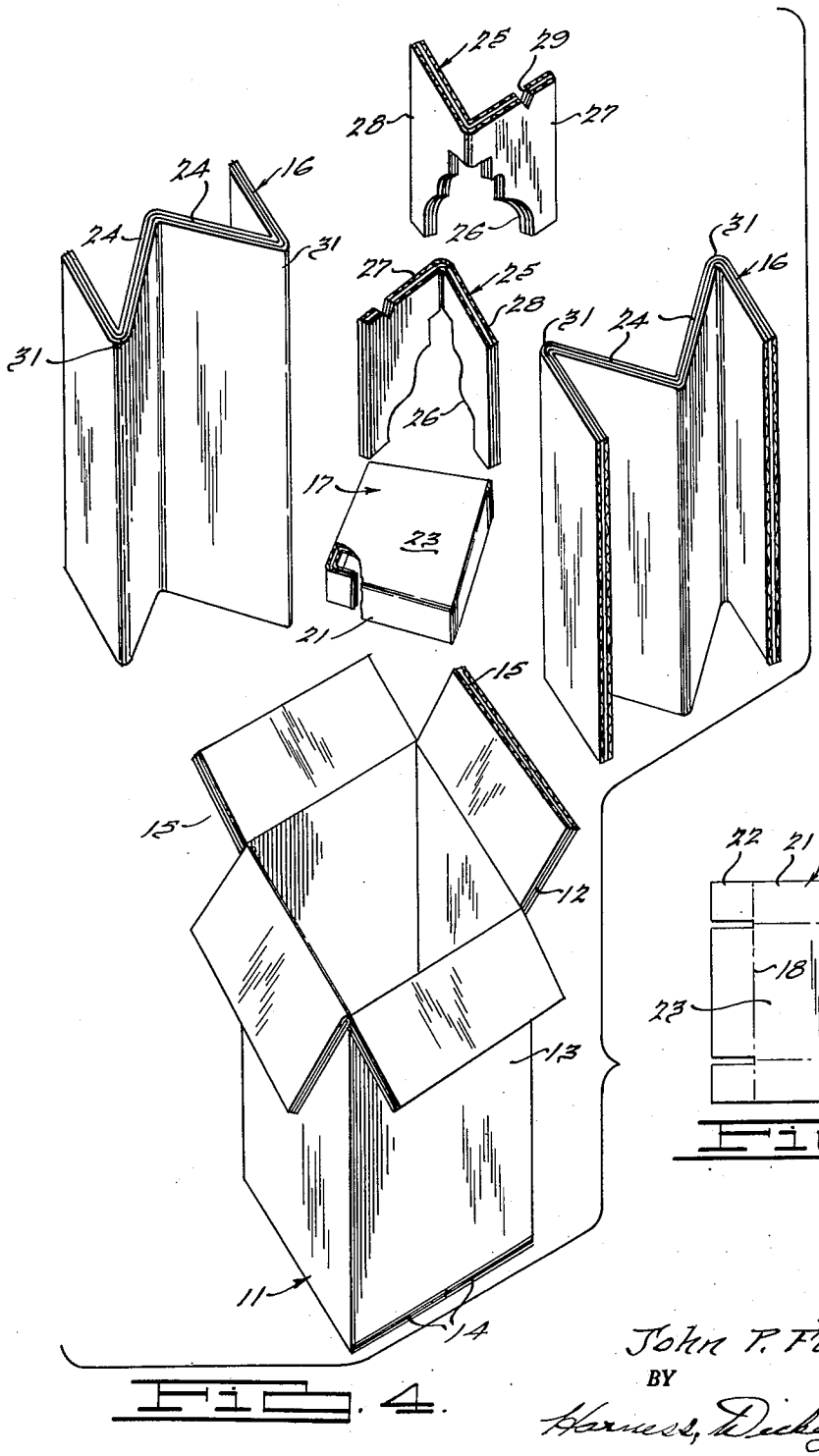


FIG. 4.

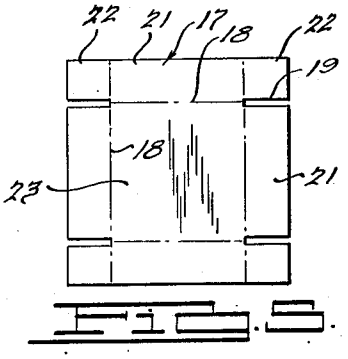


FIG. 5.

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CARTON FOR SUPPORTING A CONTAINER

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Application June 1, 1954, Serial No. 433,652

4 Claims. (Cl. 229—14)

This invention relates to packaging devices, and particularly to a carton for supporting a fragile container in a manner to prevent it from breaking.

Difficulty has been experienced in the past in supporting fragile containers for shipment and considerable ingenuity has been expended when attempting to provide a safe packing device therefor. One of the recent proposed devices embodies the use of popcorn as a means of completely surrounding a container and preventing it from breaking.

The present invention pertains to a carton made of a plurality of layers of corrugated type board having therein base, side and top elements which encompass the fragile container and support it centrally of the sides, bottom and top of the carton. The fragile container may be of any type, and for the purpose of illustration a gallon jug is shown which is made of glass and which may contain acids, poisonous matters and the like which would provide a hazard if the jug were cracked or broken, spilling the contents thereof.

Accordingly, the main objects of the invention are: to provide a carton made of corrugated type board having a raised platform in the bottom on which the container rests, encompassing elements of corrugated board at the sides which center the container and angle-shaped board elements engaging the top of the container, all of which are retained in intimate relationship by the cover flaps when secured thereover; to provide a cardboard-like carton for a fragile container which rests upon a platform and is centered by side-engaging elements and secured by top members which have the shape of said fragile container, all of which are retained in engaged position by the cover flaps when closing the carton; to provide a corrugated board carton for a fragile container having a bottom platform formed of the board material, side-engaging elements of said material for centering the container and top-engaging elements of said material, all of which are retained in unit relation by the flaps of the carton when secured in closed position; and, in general, to provide a carton for supporting a fragile container which is simple in construction, which positively retains the container in spaced relation to all walls of the carton and which is economical of manufacture.

Other objects and features of novelty of the invention will be specifically pointed out or will become apparent when referring, for a better understanding of the invention, to the following description, taken in conjunction with the accompanying drawings, wherein:

Figure 1 is a perspective view of a carton and the supporting structure for a fragile container, embodying features of the present invention;

Fig. 2 is an enlarged sectional view of the structure illustrated in Fig. 1, taken on the line 2—2 thereof;

Fig. 3 is a sectional view of the structure illustrated in Fig. 2, taken on the line 3—3 thereof;

Fig. 4 is an exploded view of the elements which make up the carton illustrated in Fig. 1, and

Fig. 5 is a view of one of the elements illustrated in Fig. 4, shown after being stamped and before bending.

For the purpose of illustration, a bottle or jug **10**, made of glass or other fragile material for containing acid, poison, or other ingredient dangerous to handle, is illustrated supported within the carton. It is to be understood that the container could assume other shapes than that of the bottle and still be retained in unbreakable position centrally within the carton. The carton **11** is of conventional form except that a plurality of layers **12** of corrugated type board or other cardboard-like material are employed to provide strength thereto. The carton has sides **13**, bottom flaps **14** and top flaps **15** which enclose the contents thereof. A pair of M-shaped side members **16**, made of heavy composition board and scored to permit the bending at the apexes of the M shape, is placed within the carton and a platform **17** is placed within the area formed by the facing central portion of the M formed members to fill the bottom of the open area provided thereby. The platform **17**, as illustrated in Fig. 5, is made from a square sheet of material having score lines **18** and cutout portions **19** forming flanges **21** which are bent downwardly, with the tab ends **22** bent inwardly at the corners to provide a rigid support for the central platform portion **23** on which the bottom of the bottle rests. The bottle is tightly held by the four sides **24** of the M-shaped element and is thereby prevented from shifting laterally. A pair of V-shaped elements **25** has cutout portions **26** which mate with the cap, neck and shoulder portions of the bottle. The two elements **25** have side walls **27** which are longer than the side walls **28** indicated by notches **29** in the top thereof, which side walls project between the adjacent corners **31** of the M-shaped element **16**. The edge of the shorter wall **28** engages within the angle corner between the walls **24** and when pressed downwardly the contoured portion **26** of each of the elements **25** engages the neck, shoulder portion and cap of the bottle. When the flaps **15** are closed, all of the elements **25**, **16** and **17** are tightly locked into engagement with each other and the contained bottle. It was found that the carton and the elements safely support the bottle under extremely severe handling conditions so that outside of the actual destruction of the carton the bottle or other container is safely supported for handling and transporting within the carton.

As pointed out above, a glass bottle has been illustrated as being the container supported within the carton, but it is to be understood that other fragile containers could be similarly supported by a change in the contoured portions **26** of elements **25** or the elimination thereof entirely, depending upon the shape of the container to be supported. In any event, the container will be supported centrally of the carton, spaced a substantial distance from the side walls and will be retained locked in position against any shifting movement.

What is claimed is:

1. A carton having side walls and end flaps with the bottom end flaps in closed position, M-shaped elements disposed within the carton between the bottom and top thereof forming a central opening, a platform within said opening having end flanges engaging the inner surfaces of the M-shaped elements and spacing the platform from the bottom of the carton within the area of said opening, and a pair of angular-shaped members within the top portion of said opening, with the angle portions in abutting relation centrally of the opening, said angular-shaped members having portions of different length, the ends of the longer of which are disposed between the M-shaped elements, the ends of the shorter of which engage the inner corners of the elements.

2. A carton having side walls and end flaps with the

bottom end flaps in closed position, M-shaped elements disposed within the carton between the bottom and top thereof forming a central opening, a platform within said opening having end flanges which space the platform from the bottom of the carton and retain the elements in fixed relation within the carton, and a pair of angular-shaped members within the top of the opening, with the angle portions in abutted relation centrally of said opening, said angular-shaped members having portions of different length, the ends of the longer of which are disposed between the M-shaped elements, the ends of the shorter of which engage the inner corners of the elements, said longer portions of the angle members having means thereon by which they are distinguished from the shorter walls.

3. A carton having four sides and flaps at the ends, a pair of M-shaped elements disposed within the carton forming an elongated central opening with the ends of the arms terminating in the corners of the carton, a platform the size of said opening disposed therein and having side flanges in engagement with the bottom flaps for spacing the platform therefrom, said platform retaining the M-shaped elements in fixed relation centrally of the carton, and a pair of angular-shaped members formed of two branches joined at the apex disposed in the top portion of the central opening with the ends at the corners thereof.

4. A carton having four sides and flaps at the ends, a pair of M-shaped elements disposed within the carton forming an elongated central opening with the ends of the arms terminating in the corners of the carton, a platform the size of said opening disposed therein and having side flanges in engagement with the bottom flaps for spacing the platform therefrom, said platform retaining the M-shaped elements in fixed relation centrally of the carton, and a pair of angular-shaped members formed of two branches joined at the apex disposed in the top portion of the central opening with the ends at the corners thereof, a portion of the length at the apex of each member being cut away to provide like contours in each branch portion, the remaining lengths of the apex abutting each other when the members are mounted within the opening.

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