April 20, 1965 C. W. ROSENBURG, JR 3,179,246

DISPLAY DEVICES

Filed Jan. 18, 1962 3 Sheets-Sheet 1

FIG. 1

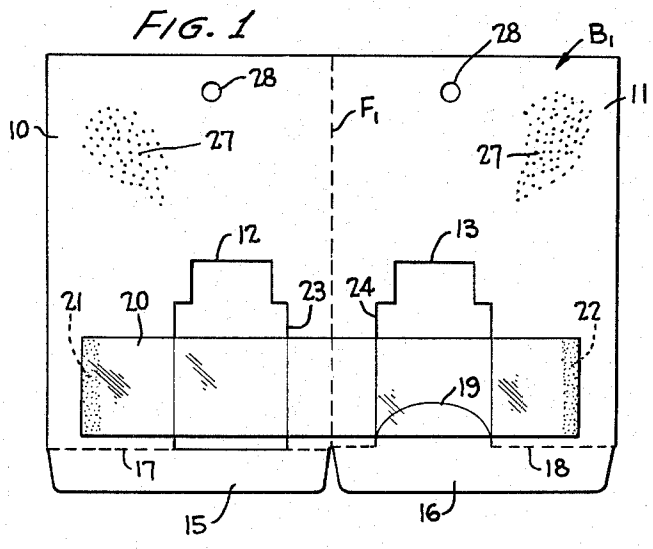


FIG. 2

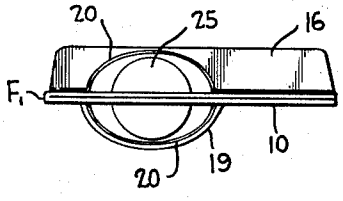


FIG. 4

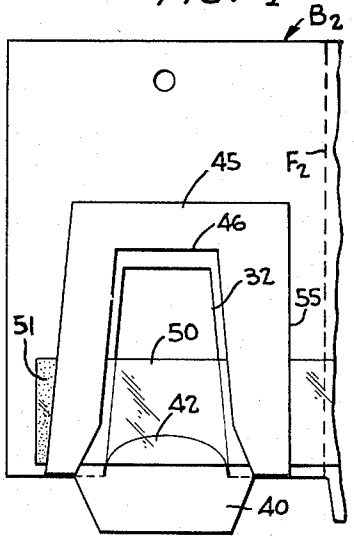


FIG. 3

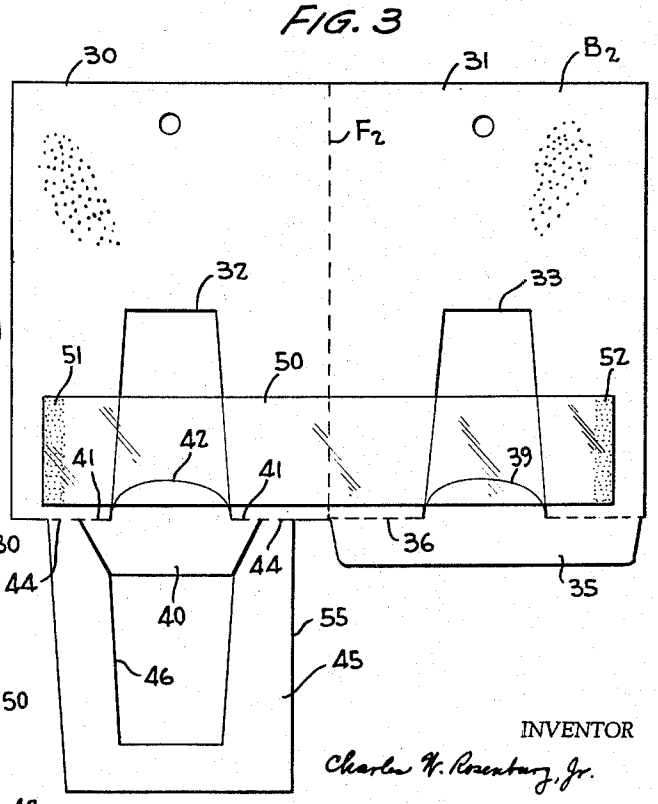


FIG. 5

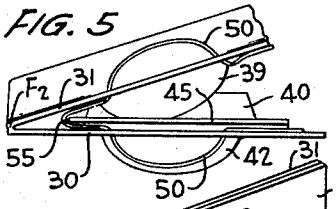
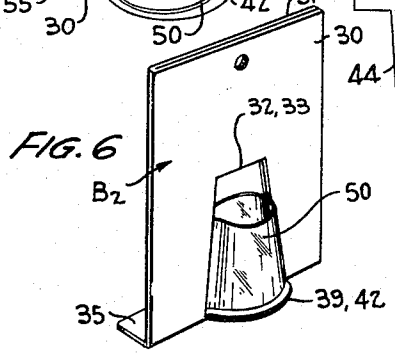


FIG. 6



INVENTOR

Charles W. Rosenburg, Jr.

BY Watson, Cole, Grindle & Watson

ATTORNEYS

April 20, 1965 C. W. ROSENBURG, JR 3,179,246

DISPLAY DEVICES

Filed Jan. 18, 1962 3 Sheets-Sheet 2

FIG. 9

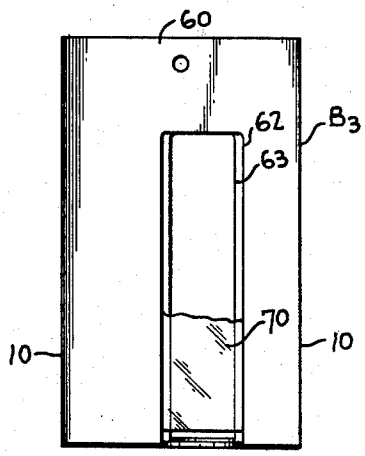


FIG. 7

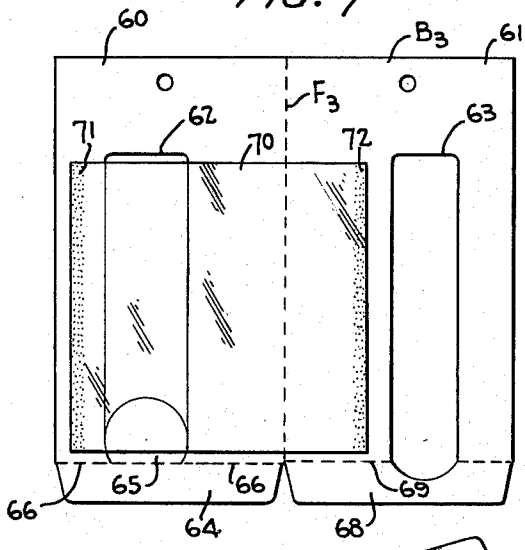


FIG. 8

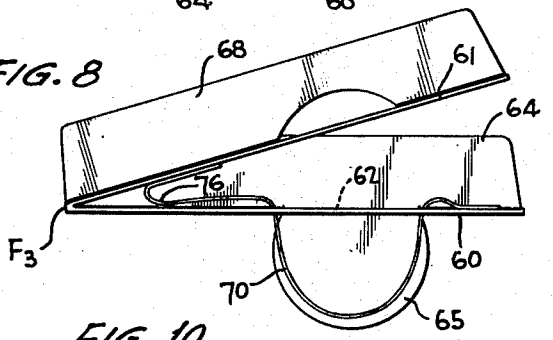


FIG. 11

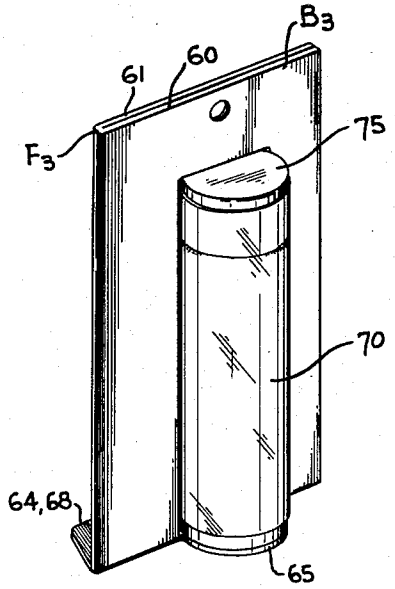
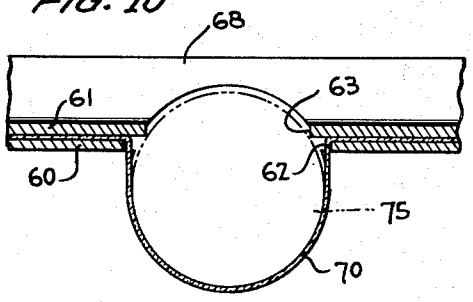


FIG. 10



INVENTOR

Charles W. Rosenburg, Jr.

BY Watson, Cole, Grindle & Watson

ATTORNEYS

April 20, 1965 C. W. ROSENBURG, JR 3,179,246

DISPLAY DEVICES

Filed Jan. 18, 1962 3 Sheets-Sheet 3

FIG. 16

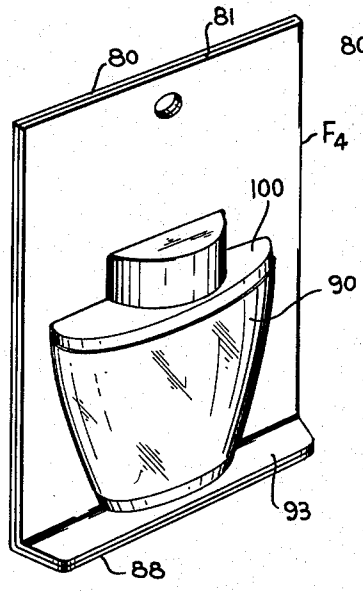


FIG. 12

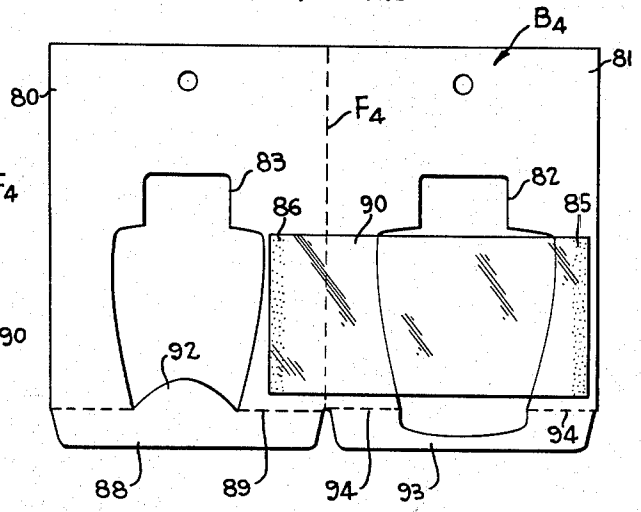


FIG. 13

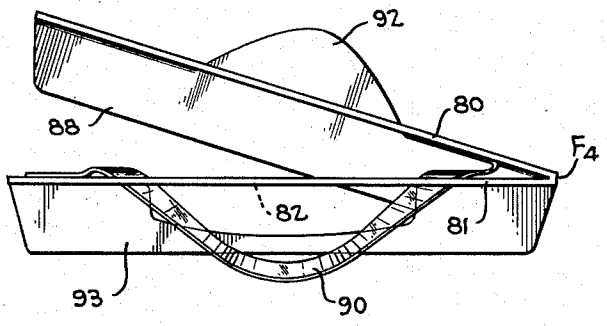


FIG. 14

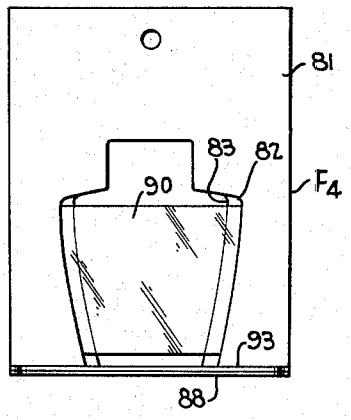
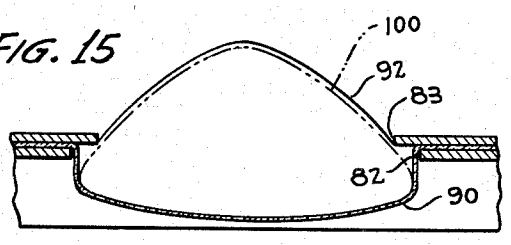


FIG. 15



INVENTOR

Charles W. Rosenburg, Jr.

BY Watson, Cole, Grindle & Watson

ATTORNEYS

United States Patent Office 3,179,246 Patented Apr. 20, 1965

1

3,179,246

DISPLAY DEVICES

Charles Warner Rosenburg, Jr., Buffalo, N.Y., assignor to F. N. Burt Company, Inc., Buffalo, N.Y., a corporation of Delaware

Filed Jan. 18, 1962, Ser. No. 167,075
10 Claims. (Cl. 206—78)

This invention relates to display devices and more particularly to containers, cartons, or easels adapted for the support and display of articles of merchandise of a wide variety, but especially for bottles or vials such as those containing cosmetics or the like.

The general object of the invention is to provide a novel and improved device of the class mentioned, and one which is relatively easy and economical to manufacture and which will afford a maximum view of the article while at the same time securing it against accidental dislodgment and breakage.

In its preferred embodiments, the invention contemplates the provision of a stand or easel which may be made of cardboard, plastic, or any other suitable relatively stiff sheet material folded to provide two panels adapted to be brought into contact face to face; each panel having an opening therein approximating the size and shape of the article to be displayed. There is provided a band of thin, quite flexible but fairly strong, and preferably transparent, tissue or plastic film. The ends of this film or web are secured respectively to the inner surfaces of the two panels and the body of the film is looped to form a sling adapted to surround the article when the latter is disposed within the openings in the two panels.

The relative dimensions of the openings and the web are so related to the contour of the article that the loop or sling formed by the web is pulled taut about the article when the two panels are brought together and secured face to face as by means of an adhesive. Thus, the article is supported securely within the substantially registering openings of the folded supporting card or easel, and the securing of the film-like web to both panels at points somewhat remote from the line of folding, permits sufficient slack to form in the web when the card is folded, to provide a snugly fitting sling to surround and hold the article in place.

In one embodiment the invention provides a supplemental stiff panel which enters the loop of the sling to cause it to maintain the article in properly centered position without protruding unduly through the registering openings upon one side or the other of the support.

In certain other embodiments of the invention, the opening in one of the panels may be made slightly smaller than the transverse profile of the article, so that the article is prevented from passing all the way through that opening. This expedient precludes the necessity for the sling or web to embrace that portion of the article which projects part way through the smaller opening.

Other objects and features of novelty will be apparent from the following specification when read in connection with the accompanying drawings in which certain embodiments of the invention are illustrated by way of example.

In the drawings:

FIGURE 1 is a plan view of a blank assembly before it is folded to provide a display device comprising one embodiment of the invention and adapted for the support and display of a small bottle or vial;

2

FIGURE 2 is a top plan view of the device shown in FIGURE 1 folded and secured, and containing a vial as for cosmetics or medicinal compositions or the like;

FIGURE 3 is a plan view of a blank assembly for the provision of a display device comprising another embodiment of the invention;

FIGURE 4 is a fragmentary plan view showing one panel of the blank of FIGURE 3 with an auxiliary sling retaining panel folded to operative position;

FIGURE 5 is a fragmentary top plan view of the same device, the main panels approaching final operative position;

FIGURE 6 is a view in perspective of the completed display device but with the article removed for the sake of clearness of illustration;

FIGURE 7 is a plan view of a blank assembly for the preparation of still another modification of the invention;

FIGURE 8 is a top plan view showing the same blank in partly folded condition;

FIGURE 9 is a view in front elevation of the completed folded blank, however with the article removed and a portion of the sling broken away;

FIGURE 10 is a horizontal sectional view taken on line 10—10 of FIGURE 9;

FIGURE 11 is a view in perspective of the completed display device formed from the blanks shown in FIGURES 7–10 inclusive with a bottle or vial contained therein; and

FIGURES 12–16 inclusive are views similar to FIGURES 7–11 respectively, but illustrating an embodiment of the invention adapted for the support and display of a bottle of tapering vertical aspect and of irregular cross-section.

The arrangements provided by the present invention comprise generally easels or display cards preferably adapted to stand upon their own bases and in a vertical position, although in the broader aspects of the invention the devices may assume any angular position. It is also to be understood that the materials of construction of the devices may vary and whenever the term "card" is employed, it may be taken to embrace cardboard, sheet metal, or plastic within the context of the claims.

The device illustrated in FIGURES 1 and 2 of the drawings is probably the simplest in construction and is designed to display a small bottle or vial of rather regular contour, specifically of an oval cross-section. The blank assembly from which this device is formed is given the general designation B_1 and it will be seen that the blank is creased for folding along the line F_1. This fold line in this particular embodiment divides the blank B_1 into two panels 10 and 11, the panels having cut-outs or openings formed in them as at 12 and 13, these openings being of approximately the shape of the vertical cross-section of the bottle, vial, or other article to be contained.

At the lower edge of the blank B_1, it is cut to provide two flaps 15 and 16, one assigned to each of the panels 10 and 11. The flap 15 is foldable away from the plane of the panel 10 as along the crease line 17 and the flap 16 is foldable with respect to the panel 11 along the line 18. At least one of the flaps 15 or 16 may be pro-

vided with a protuberance such as suggested at 19, the purpose of which will be described presently.

Spread across at least portions of the openings 12 and 13 with the blank B_1 laid flat, is a web 20 which is preferably of thin flexible but strong sheet material preferably transparent and which can be made from a suitable plastic such as cellophane, or thin sheets or film of polyvinyl chloride, polyvinyl acetate, or polyethylene. This band or web of material 20 is secured at its ends by means of the adhesive 21 and 22 to the inner surface of the respective panels 10 and 11 at points quite remote from the fold line F_1 and of course the band extends across both of the openings 12 and 13.

Now when the blank B_1 is folded along the line F_1 to bring the inward surfaces of the panels 10 and 11 together into face-to-face contact, the web 20 not being secured to the panels in the neighborhood of the fold line F_1, is free to form a loop or sling and the slack developed between the inner margins 23 and 24 of the openings 12 and 13 will permit portions of the web to bulge outwardly through the openings 12 and 13 and when an article such as the small bottle or vial suggested at 25 in FIGURE 2 is placed within the two openings as the card is folded together, the sling formed by the web 20 will embrace the vial and prevent it from being dislodged from between the openings.

A quantity of self-sealing adhesive such as suggested at 27 may be spread on the inner surfaces of the panels 10 and 11 so that when they are pressed together as shown in FIGURE 2, they adhere strongly.

The flaps 15 and 16 are folded at right angles along the lines 17 and 18 and they form a base or support for the easel-like display card structure and at the same time the flap 19 swings in the opposite direction and extends away from the vertical panels to form a ledge for the support of the vial 25 upon its side of the structure.

The completed card may be decorated and inscribed in suitable fashion to advertise the product and if desired, the openings suggested at 28 may be formed for suspending the structure from above.

In the embodiment shown in FIGURES 3–6 inclusive of the drawings, the device is modified in several particulars, both to accommodate an article or receptacle of frusto-conical configuration and to control the position of the loop of the sling web. In these figures the blank is designated B_2 and is creased along the line F_2 to provide panels 30 and 31; openings 32 and 33 are cut in the panels at points preferably equi-distant from the crease line F_2; and a flap 35 may be bent along the crease line line 26 to provide a base member similar to the one shown at 16 in FIGURES 1 and 2. A flap 39 extends inwardly from the flap 35 to provide a supporting ledge corresponding to the one indicated at 19 in FIGURES 1 and 2.

In this present embodiment, however, the lower portion of the panel 30 is modified considerably. The blank is so cut from the original sheet material as to provide more than one flap or extension from the lower edge. First of all, there is a flap 40 which is hinged along the lines 41 to the lower edge of the panel 30 and is provided with a ledge-forming counter-flap or projection 42. The flaps 40 and 35 overlap to form the base of the device, and the ledges 39 and 42 similarly extend in the opposite direction from the base flaps to form a complementary ledge for the other side of the base of the article.

The panel 30 has hinged to its lower edge as at 44 a panel 45 which is cut away centrally to provide an opening 46 which is at least as large as the openings 32 and 33 in the body portions of the panels 30 and 31. When the flap 45 is folded up against the inner surface of the panel 30 it will be well concealed and will not interfere with the positioning of the article within the openings 30 and 33.

Now the web 50 in this case has its ends secured to the inward surfaces of the panels 30 and 31 at points remote from the fold line F_2 and outwardly of the openings, as indicated at 51 and 52, and it will be seen that the edge 55 of the supplemental panel 45 when folded upwardly against the web 50 will be spaced from the fold line F_2 a distance such as indicated at the right-hand side of FIGURE 4 of the drawings. This will still permit slack to form in the web 50 equal to twice the distance of the edge 55 from the fold line F_2 and this will be sufficient to form the sling for the article and at the same time prevent the loop portion of the sling from being dislodged unequally through the registering openings upon either side of the device.

The effect of this gauging or bracing panel 45 is clearly shown in FIGURE 5 of the drawings where the panels 30 and 31 are approaching their final face-to-face position. It will be clearly seen from this view how the edge 55 of the supplemental panel 45 limits the movement of the web 50 from the fold line F_2 which prevents it from protruding unequally through either of the openings 32 or 33.

The arrangement is shown in final assembled form in the perspective view of FIGURE 6 and it will be clearly understood how the sling formed of the web 50 serves to enclose an article disposed within the openings 32 and 33 and prevent unequal protrusion upon either side of the device.

In FIGURES 7–11 inclusive of the drawings, another embodiment of the invention is illustrated and in this case it is possible to rigidly and securely retain the article while at the same time permitting it to protrude more than half-way through the opening in one of the panels. The blank in this case is designated B_3 and the fold line F_3 forms two panels 60 and 61, the panel 60 being provided with an opening 62 which is at least as wide as the vertical section or profile of the article to be retained, and the panel 61 is provided with a somewhat narrower opening 63 which is of less width than the maximum vertical section of the article.

A flap 64 with a corresponding ledge-forming oppositely extending flap 65, is hinged along the line 66 at the bottom edge of the panel 60 and a base flap 68 is hinged along the line 69 at the bottom of the other panel 61.

Now in this embodiment the web designated at 70 is secured at one edge to the inner surface of the panel 60 outwardly of the opening 62 as at 71 but the opposite edge of the web 70 is secured at 72 which is inwardly of the opening 63 and nearer the fold line F_3. The point of securement 72 is, however, still at a point spaced from the fold line F_3 to provide sufficient slack in the web to form a proper sling, which however protrudes through the opening 62 only, in surrounding and retaining the article which, in this case, is the cylindrical bottle or vial suggested at 75 in FIGURE 11.

In folding the device shown in these figures, the panels 60 and 61 are bent along the fold line F_3 and brought toward each other as clearly shown in FIGURE 8, the base flap 64 being folded at right angles to the panel 60 and the base flap 68 similarly folded at right angles to the panel 61 and overlapping the base flap 64 to form a firm foundation for the device. The somewhat circular ledge flap portion 65 extends from the opposite side of the structure to underlie substantially the greater portion of the bottle or vial 75. During the folding movement the web 70 extends through the opening 62 due to the slack permitted adjacent the portion 76 near the fold F_3.

In FIGURE 9 of the drawings the blank itself is shown in final folded position and the differences in the widths of the openings 62 and 63 may be clearly discerned. The positioning of the bottle or vial 75 is best shown in FIGURES 10 and 11 of the drawings, the web 70 extending around the greater portion of the bottle 75 and protruding from the opening 62, the rear portion of the bottle being prevented from extending more than a short distance through the opening 63. The completed arrangement is best shown in FIGURE 11 of the drawings

where it will be seen that the article 75 is given a maximum of exposure on the display card.

The embodiments shown in FIGURES 12–16 inclusive follow the same principle as involved in the structures illustrated in FIGURES 7–11 but is designed to accommodate a bottle of quite odd shape and irregular contour. The blank as a whole is designated B_4 and is folded along the line F_4 to form the panels 80 and 81. The larger opening 82 is formed in the panel 81, and the smaller one 83 in the panel 80. The web 90 extends across the opening 82 and is secured at one end to a remote portion of the panel 81 as at 85 and the other end is secured as at 86 to a point on the panel 80 which is still spaced sufficiently from the fold line F_4 to furnish adequate slack in the sling to be provided by the web 90. A base flap 88 is hinged as at 89 to the panel 80 and is formed with a counter-projection 92 to form a supporting ledge for the article, and a flap 93 is hinged as along the lines 94 to the lower edge of the panel 81.

In FIGURE 13 it is clearly shown how the slack in the web moves away from the vicinity of the fold line F_4 so that the web may protrude through the opening 82 in the panel 81.

The view in elevation (FIGURE 14) shows how the web 90 accommodates itself to the contour of the tapering bottle shown at 100 in FIGURES 15 and 16, and it is also readily perceptible from FIGURES 14 and 15 how the opening 82 is of substantially greater width than the opening 83 particularly over the main body portions thereof.

In FIGURE 15 it is clearly indicated how the bottle 100 with its irregularly roughly-triangular shape protrudes from the opening 82 and is limited by the sling formed of the web 90 and how the rearward portion of the bottle is prevented from passing all the way through the opening 83 due to the fact that it is wider than that opening.

The entire finished product afforded by this embodiment is illustrated to good advantage in the perspective comprising FIGURE 16 of the drawings.

It is understood that various changes and modifications may be made in the embodiments illustrated and described herein without departing from the scope of the invention as defined by the following claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A display device for containing and supporting an article of merchandise, said device comprising a card folded along a line intermediate its width to provide two panels which are disposed with their inward faces in contact when the card is doubled along the fold line; an opening through one of said panels of approximately the configuration of a vertical cross-section or profile of the article, but of slightly greater area, said opening being spaced completely from said fold line; a thin, flat, planar, continuously single-ply flexible band having its ends respectively secured to the inward surfaces of said panels at only two points each spaced from the fold line, one of said points being on said one panel outwardly of the remote edge of the opening therein, and the other point being on the other of said panels and spaced a predetermined distance from said fold line, depending upon the size of the article so that the band bridges without securement said opening, said fold line, and a considerable portion of the second named panel adjacent the fold line, and thus a certain amount of slack is provided in said band when the panels are brought inwardly into face to face contact, to form a flexible sling to envelop said article when the latter is disposed within said opening.

2. The display device as set forth in claim 1 in which said band is of less dimension in the direction of extent of said fold line than that of said opening, whereby said sling may pass freely through the opening.

3. A display device for containing and supporting an article of merchandise, said device comprising a card folded along a line intermediate its width to provide two panels which are disposed with their inward faces in contact when the card is doubled along the fold line; a separate opening through each of said panels of approximately the configuration of a vertical cross-section or profile of the article, at least one of said openings being of slightly greater area than said cross-sectional area or profile, said openings being spaced equal distances from the fold line whereby they are approximately in registry when the card is doubled; a thin, flat, planar, continuously single-ply flexible band having its ends respectively secured to the inward surfaces of said panels at only two points each spaced from the fold line, one of said points being on said one panel outwardly of the remote edge of the opening therein, and the other point being on the other of said panels and spaced a predetermined distance from said fold line depending upon the size of the article, so that the band bridges without securement said opening, said fold line, and a considerable portion of the second named panel adjacent the fold line, and thus a certain amount of slack is provided in said band, when the panels are brought inwardly into face to face contact, to form a sling to snugly envelop said article when the latter is disposed within said openings.

4. The display device as set forth in claim 3 in which the said two points of securement of said band to the inward surfaces of said panels are laterally outwardly of the respective openings therein as referred to the unfolded blank card, whereby the sling formed may extend across both openings and envelop the portions of the article which may protrude through said openings, said band being of less dimension in the direction of extent of said fold line than that of said opening, whereby said sling may pass freely through the opening.

5. The display device as set forth in claim 4 in which a third panel is interposed between said first named panels when the device is brought to folded condition, said third panel having an opening therein in substantial registry with the openings in said first named panels but large enough to permit the easy passage of the article therethrough, said third panel intervening within the sling and having one lateral margin spaced from the said fold line, whereby the slack in the sling is limited to prevent the passage of said sling with its contained article all the way through either of the first named openings.

6. The display device as set forth in claim 4 in which a third panel is secured to at least one of said first named panels and interposed between said first named panels when the device is brought to folded condition, said third panel having an opening therein in substantial registry with the openings in said first named panels but large enough to permit the easy passage of the article therethrough, said third panel intervening within the sling and having one lateral margin spaced from the said fold line but lying between said fold line and the adjacent inward margins of the openings in said first two panels, whereby the slack in the sling is limited to prevent the passage of said sling with its contained article all the way through either of the first named openings.

7. The display device as set forth in claim 4 in which said third panel is hinged to a margin of one of the first two panels which is adjacent the said fold line.

8. The display device as set forth in claim 7 in which said third panel is formed integrally with the first named panel to which it is hinged by means of a crease line, the opening in said third panel being cut back along its side margins up to said crease line, and a flap also hinged at said crease line to said first named panel within the confines of the third panel opening, said flap serving when folded out at an angle to the plane of the device to provide a ledge for lending support to said article.

9. The display device as set forth in claim 3 in which one end of said sling band is secured to the first of said two panels outwardly of the opening therein as viewed in unfolded condition while the opposite end is secured to the second panel inwardly of its opening but still spaced from the fold line, whereby the sling envelops only one side of the article which protrudes through the opening in said first named panel, the opening in the second panel being somewhat smaller in area than the cross section of said article, said band being of less dimension in the direction of extent of said fold line than that of said opening, whereby said sling may pass freely through the opening.

10. The display device as set forth in claim 9 in which the opening in the second named panel is of smaller size than the widest vertical section or profile of the article,

whereby the article is retained upon the one hand by the sling as it protrudes through the first opening, and on the other hand by the margins of the narrower second opening as it protrudes partially through the latter opening, and is thus prevented from dislodgment from the device.

References Cited by the Examiner

UNITED STATES PATENTS

2,491,423	12/49	Snyder	206—78
3,018,879	1/62	Crane	206—78
3,064,402	1/62	Crane	206—78

FRANKLIN T. GARRETT, *Primary Examiner.*

EARLE A. DRUMMOND, GEORGE O. RALSTON, *Examiners.*