March 7, 1939. C. L. GILBERT 2,149,959

KNOCK-DOWN DISPLAY DEVICE

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FIG. 1

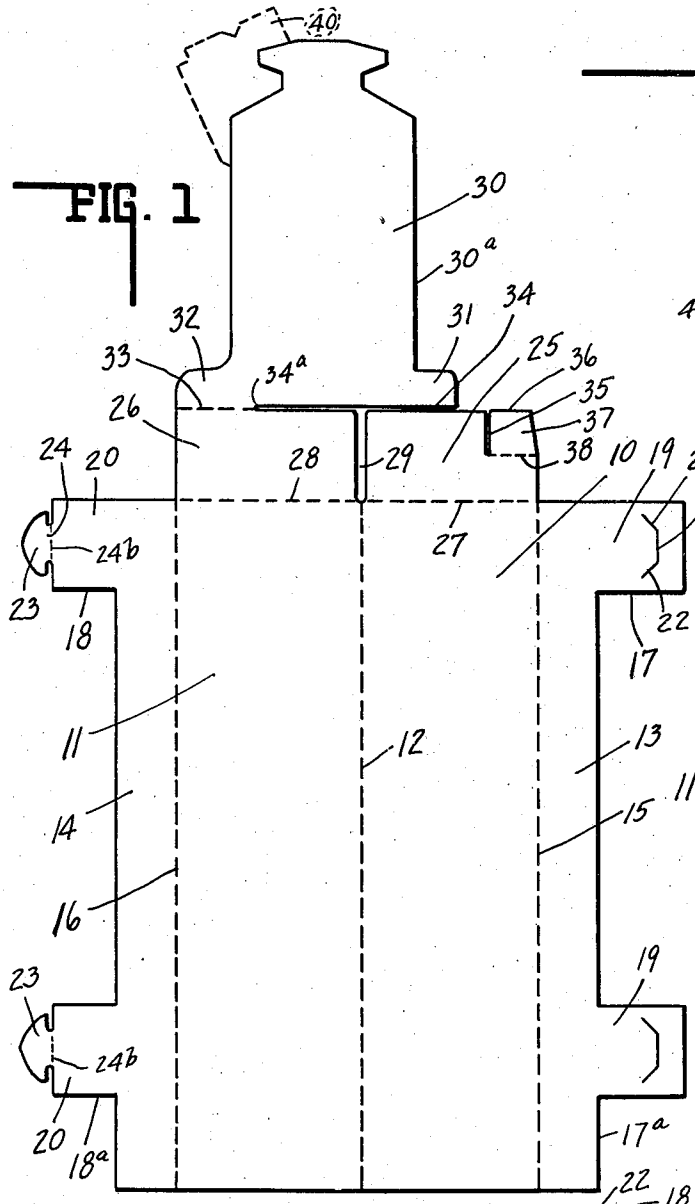


FIG. 2

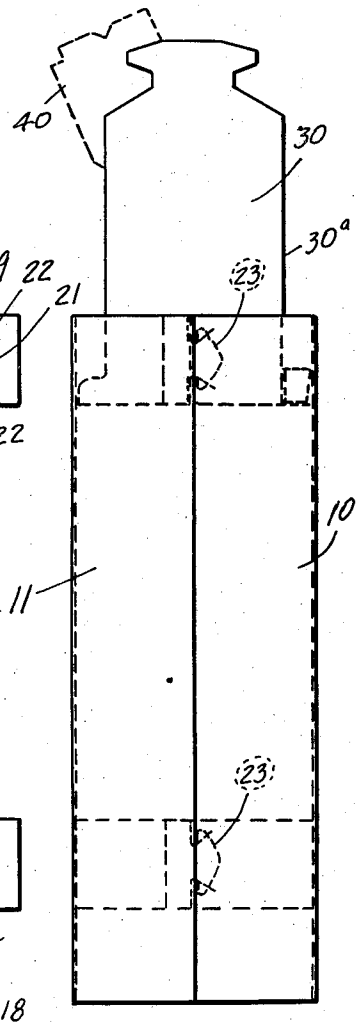


FIG. 3

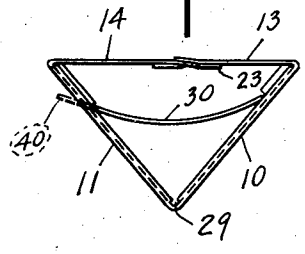
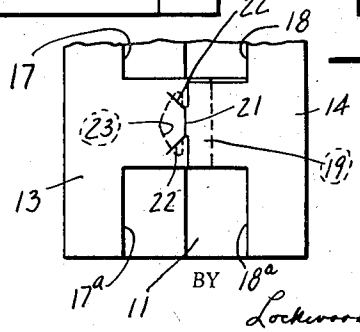


FIG. 4



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FIG. 5

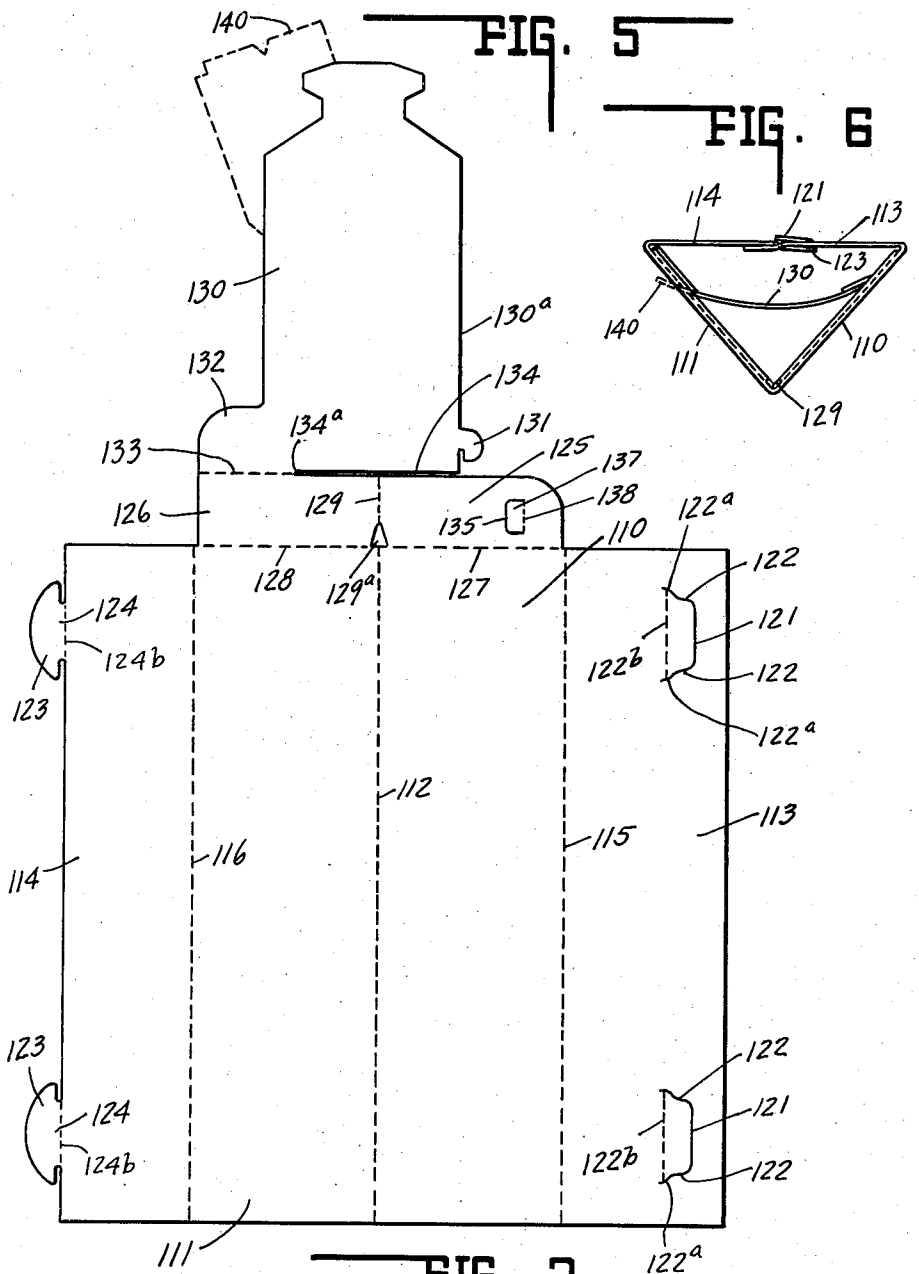
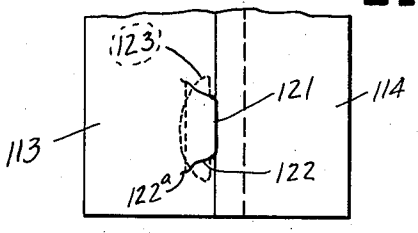


FIG. 6

FIG. 7



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UNITED STATES PATENT OFFICE

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KNOCK-DOWN DISPLAY DEVICE

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Application January 31, 1938, Serial No. 187,809

11 Claims. (Cl. 40—126)

This invention relates to a knock-down display device.

Merely by way of illustration, the same is shown as a display similar to and for the same purpose as the display device illustrated and described in the patent to Nathan Joseph Leigh, No. 2,064,434, dated December 15, 1936.

One chief object of this invention as distinguished from the patent disclosure is to form such a display from a single blank.

Another and equivalent object of this invention is to form such a display from the stock, the amount of which is materially less in its entirety than that required to produce the patent disclosure.

One chief feature of the invention consists in the formation of a display device of this general character from an integral blank so that the parts which form the display device to be set up for display purposes, may be so positioned that certain relationships are obtained therebetween and are retained therein without the use of adhesive or any other connection other than that incorporated in the blank.

Another chief feature of the invention is to provide a lock or connection between the paper board parts which is relatively simple and positive in character.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

In the drawings, Fig. 1 is a plan view of the blank from which the integral display device is formed.

Fig. 2 is a front view thereof in display position.

Fig. 3 is a top plan view of the same.

Fig. 4 is a rear view of the lower locking device embodying one feature of the invention.

Fig. 5 is a plan view similar to Fig. 1 and of a modified form of the integral form of the invention.

Fig. 6 is a top plan view similar to Fig. 3 and of the form of the invention shown in Fig. 5.

Fig. 7 is a rear view similar to Fig. 4 and of the form of the invention shown in Fig. 5.

In Figs. 1 to 4 of the drawings, there are illustrated two areas 10 and 11 which are integral with each other and are connected together by a hinge joint 12, since the areas are integral this joint permits two areas or portions to be positioned angularly of each other to represent two adjacent side walls of a tubular container for an article of merchandise. Extending oppositely from each of the areas, opposite the hinge connection therebetween, are the portions 13 and 14 hingedly connected respectively by the score or crease lines 15 and 16 to the areas 10 and 11, respectively. Portion 13 is suitably relieved as at 17 and 17a and portion 14 is suitably relieved as at 18 and 18a although such relief need not be provided.

Such relievement in effect, therefore, provides two strip extensions 19 on the portion 13 and strip extensions 20 on the portion 14. One of these strip extensions is provided with a socket or slot arrangement and the opposite one is provided with a tongue arrangement. Herein each of the strips 19 includes an elongated slit 21 parallel to the hinge line 15. Extending angularly from each end thereof is a slit 22 and the slits 22 extend oppositely from each other and toward the hinge connection.

On the free end of the strap 20 is a tongue portion 23 connected to portion 20 by the reduced neck 24. The width of the neck portion 24 is substantially the same as the length of the slit 21. The depth of the neck portion is slightly greater than the thickness of the board material which preferably is of card board, suitably lithographed, printed or the like. The greatest width of the spear-like tongue is slightly less than the greatest distance between the two angular slits 22. The two complementary parts are associated together as shown clearly in the upper middle portion of Fig. 3 and the central portion of Fig. 4.

Extending upwardly from each of the areas 10 and 11 are the extensions 25 and 26, respectively, and these are connected thereto by the hinge or score line connections 27 and 28, respectively, which permit the infolding of these extensions into the central angle formed by the two wall portions 10 and 11 when the latter are arranged in angular relation and are retained therein by the association of the extensions 19 and 20 in locking relation.

It will be noted that the two extensions 25 and 26 are separated by a slit or slot arrangement 29—see Fig. 1. The upper portion of the blank 30 may have any suitable outline but preferably represents an article of merchandise or at least the upper portion thereof that would normally be contained within a tubular container, the representation of the two front walls of which are provided by the portions 10 and 11. The lower portion of this upper portion 30 is laterally enlarged as at 31 and 32. Portion 32 is integral with portion 26 and is hingedly connected thereto as at 33. Portion 31 is separate from portion 25 as

shown, this separation slit being indicated by numeral 34 in Fig. 1. Since the upper portion 30 is connected to the lower portion of the device through the extension 26, the cooperative locking connection is effected through the extension 25.

The extension 25 includes a slit 35 that extends from its free end 36 toward the hinge or foldable connection 27, thereby providing an area 37 which may or may not have a scored connection 38 with the extension 25 as shown. To facilitate assembly or set up of the blank, this score connection is provided. It is not, however, essential, unless the board from which the material is made is not sufficiently flexible.

The several portions of the blank are set up as follows: The two portions 25 and 26 are folded rearwardly and downwardly so as to lie behind the portions 10 and 11. Then the upper portion 30 is folded upwardly about the hinge connection 33 so that the major area of the portion 30 is exposed above the two portions 10 and 11. Then the two portions 10 and 11 are moved into angular relation. In this movement the portion 37 is elevated slightly with respect to the remainder of the extension 25 and as the parts 10 and 11 assume an angular relation, the tongue 31 passes into the slot 35 until the edge 30*a* of the upper portion engages the edge of the portion 37 at the slit or slot portion 35. Such movement causes the upper portion 30 to assume a position so that it is substantially arcuate in cross section. In turn each of the tongues 23 is passed into the complementary slit portions 21—22. The device then is in assembled relation, self-sustaining and represents by the exposed portions 10 and 11 two adjacent walls of a tubular container and by the upper portion 30 a front portion of a representation of a tubular article normally contained within such a container.

When in this relationship, the portions 13—14, the tongue and slit connecting extensions 19—20, the intermediate portion or extensions 25—26 and the lateral extending portions 31—32 are all concealed within the central angle formed by the two wall representing portions 10 and 11.

Portion 40 may be included, whenever desired, as an integral part of portion 30 and be printed as an arrow extended across portion 30, pointing to advertising matter printed upon portions 10 and 11.

In Figs. 5 to 7 of the drawings, there is illustrated a modified form of the invention. In said figures, numerals of the one hundred series similar to the primary series employed with reference to Figs. 1 to 4, inclusive, are herein employed to designate like, similar or equivalent parts.

This form of the invention differs in three main respects. In the first instance, the side portions 113 and 114 are not of relieved form such as shown in Fig. 1. The side portion 114 includes the locking tongues 123 connected thereto by the neck portions 124 of substantially the same general character as described with reference to the neck portions 24, shown in Fig. 1, as compared with the width or distance between the ends of the slits 22 in said figure. Herein in Fig. 5 the oppositely directed slit portions 122 are also directed toward score portion 115 but include arcuate extensions 122*a*. The tongue thus defined may, if desired, be further defined by the score or hinge portion 122*b*. If desired—see Fig. 5—the portions 123—124 may have a score connection 124*b* with the portion 114.

The second departure from the form of the invention shown in Fig. 1 is that portions 125 and 126 instead of being individualized with respect to each other are herein shown integral and are provided with a hinge connection 129. The latter, however, instead of being a continuous extension of the hinge connection 112, is, although in alignment, separated therefrom by the triangular notch 129*a* which is positioned at the intersection of the hinge connections 128—127 and 129 (projected)—112.

The third departure in this form of the invention is as follows: The portion 13 projecting from the side edge 130*a* is of hook formation. The portion 125, instead of being formed as portion 25 is formed, see Fig. 1, in the present instance includes a D-shaped slit 135 defining a tongue portion 137, the outline of the latter being completed, if desired, by the scoring 138.

The setting up of this form of display device is similar to that previously described with reference to the form of the invention shown in Figs. 1 to 4, inclusive. It is, however, not identical thereto because of the difference in the construction of the interlock between the hook portion 131 and the portion 125. Furthermore, there is a slight difference by reason of the fact that portions 125 and 126 are integral with each other and not divided as shown, with reference to parts 25 and 26, separated by the slot 29—see Fig. 1.

The portions 130, 25 and 126 are turned downwardly and rearwardly with reference to portions 110 and 111, then portion 130 is turned upwardly on the hinge portion 133. The hingedly connected portions 110 and 111 and 125 and 126 are then turned from the flat relation upon the score connections 112 and 129, then the two portions 114 and 113 are turned inwardly so as to lie in substantially the same plane and when thus positioned, the tongues are lockingly associated with the cooperating slits to retain the device in substantially triangular relation. Also, the hook member 131 is then associated with the D-shaped slot or slit 135 so that the opposite side 130*a* of the extension 130 is locked to the portion 125. This form of the invention while it utilizes a little more stock by reason of the omission of the cut-outs 17, 17*a*, 18 and 18*a*—shown in Fig. 1—does have the advantage that there is additional inherent strength at the connection between the portion 130 and the two container wall forming portions 110 and 111, by reason of the fact that portions 125 and 126 are integral with each other and hook member 131 is locked to portion 125 and the opposite, lateral extension 132 on the portion 130 is integral with the portion 126.

Note in each instance, the slot or slit 34 and 134 completely separates the portion 30 and 130, respectively, from the portions 25 and 125 and are partially separated from the portions 26 and 126, respectively, said slots terminating at 34*a* and 134*a*, respectively.

While the invention has been described in great detail in the foregoing specification, and the description and illustrations thereof are in great detail, such description and illustrations are to be considered as illustrative and not restrictive in character and the various modifications suggested, illustrated and/or described herein, and others which will readily suggest themselves to persons skilled in this art, are all considered to be within the broad scope of this invention, reference being had to the appended claims.

The invention claimed is:

1. A knock-down display device comprising a single blank of sheet material having its lower portion arranged in the form of a collapsible,

hollow elongated prism of polygonal cross section, certain adjacent walls of said prism simulating adjacent walls of a container for an elongated article of merchandise, the upper portion of the blank being arranged in partly projected position relative to the prism and with its exposed portion bent into arcuate-like cross-section so as to simulate the front of said elongated article of merchandise.

2. A device as defined by claim 1, characterized by the upper and lower portions of the single blank being connected by an intermediate portion, said intermediate portion being foldable inwardly into the top of the prism and having an interlocking connection within the prism and with the lower end of the blank upper portion.

3. A knock-down display device comprising a single blank of sheet material, the lower portion including two score connected areas, each having retaining means projecting oppositely from the unconnected edges, said retaining means, when associated together, retaining the areas in angular relation for display support and simulating adjacent walls of a container for an elongated article of merchandise, the upper portion of the blank being arranged in partly projected position with its exposed portion bent into arcuate-like cross-section so as to simulate the front of said elongated article of merchandise, and an intermediate portion hingedly connected to the top of each area, said upper portion having hinged connection with one of said intermediate portions, and an interlocking connection with the other of said intermediate portions when the lower end of the upper portion is concealed by the upper end of the lower portion.

4. A device as defined by claim 3, characterized by the two intermediate portions having their immediate adjacent side edges separated from each other.

5. A device as defined by claim 3, characterized by the two intermediate portions having their immediately adjacent side edges hingedly connected together, the hinging being oppositely directed from that between the score connected areas.

6. A device as defined by claim 3, characterized by the two intermediate portions having their immediately adjacent side edges hingedly connected together, the hinging being oppositely directed from that between the score connected areas, the immediate junction area of the two areas and intermediate portion being cut out to facilitate setting up of the device.

7. In a device of the character described, a single blank having two integral portions angularly arranged for adjacent side wall representation, an extension on the upper end of each portion and foldable inwardly and downwardly into the central angle between the portions, and an elongated upper portion integral with one of said extensions and foldable relative thereto to expose the upper portion above the angular portions, the other extension and the lower end of the upper portion remote from its integral extension connection having an interlocking relation therebetween.

8. A device as defined by claim 7, characterized by the second mentioned extension having a slit extending from its free edge opposite its foldable connection and the upper portion having a laterally projecting tongue, said tongue and slit constituting the interlocking.

9. A device of the character defined by claim 7, characterized by the second mentioned extension having a slit therein and the upper portion having a laterally projecting locking tongue, said tongue and slit constituting a locking and supporting connection.

10. A device as defined by claim 7, characterized by the upper portion interlocking connection being of slot and tongue type.

11. A device as defined by claim 7, characterized by the upper portion interlocking connection being of slot and tongue type, the slot being of substantially U-shaped character and the tongue having hook outline.

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