Dec. 14, 1943. W. F. GIES ET AL 2,336,857

CARRY HOME BOTTLE CONTAINER

Filed Aug. 17, 1938

Fig. 1.

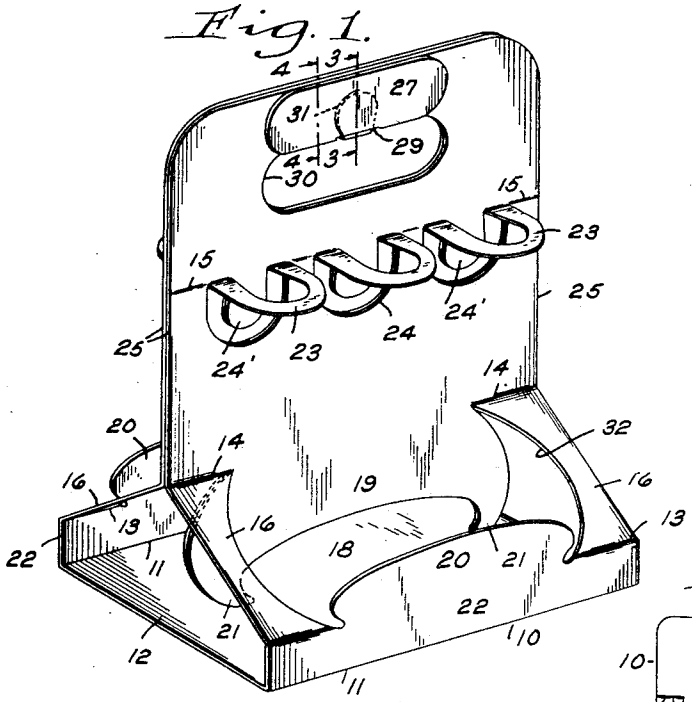


Fig. 5.

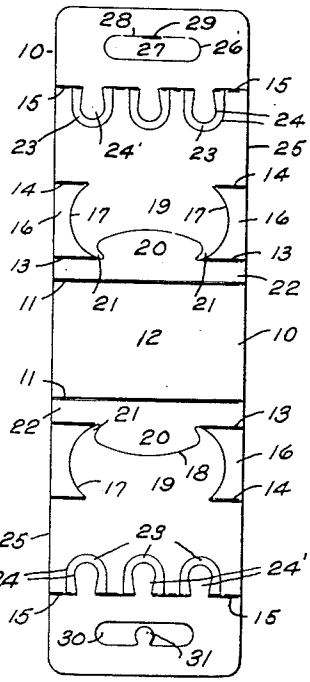


Fig. 3.

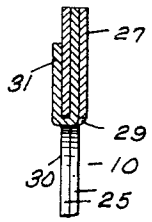


Fig. 2.

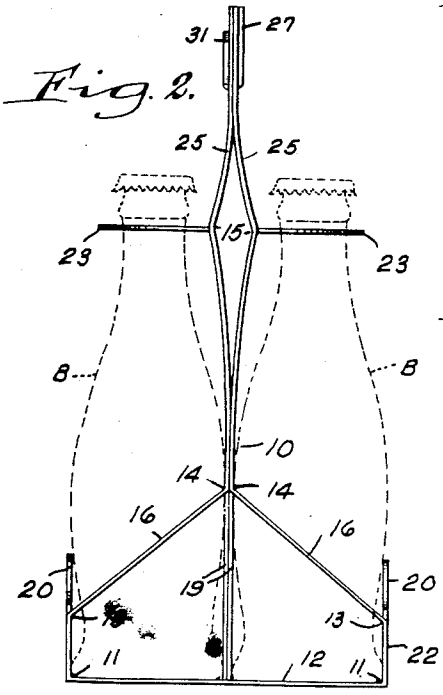
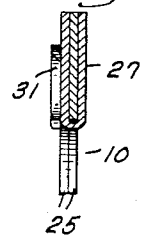


Fig. 4



Inventors,
William F. Gies
William J. Wells
by Carl W. Weeks
Attorney.

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CARRY-HOME BOTTLE CONTAINER

William F. Gies and William J. Wells, Buffalo, N. Y., assignors to F. N. Burt Company, Inc., Buffalo, N. Y., a corporation of Delaware

Application August 17, 1938, Serial No. 225,404

3 Claims. (Cl. 229—52)

This invention relates to improvements in article containers, and more particularly to that type of container utilized for temporarily containing articles such as bottles and the like and providing a convenient means for carrying the articles short distances such, for example, as when they are delivered by a retail store to a customer to be carried home or to their destination.

It is a general object of the invention to provide a carry home container of the class mentioned including in its construction a single integral sheet of material such as cardboard, fiberboard, and the like, formed or fabricated in an improved manner so it can be quickly and easily set up into container form to support the articles and to protect them during the time they are being carried.

A further object of the invention is to provide a container of the class mentioned including in its construction an integral sheet member formed to provide an article supporting and cushioning means to prevent marring or damage to the articles being carried, such as bottles and the like.

Still another object of the invention is to provide a carry home container of the class mentioned including in its construction a structural sheet member preformed or fabricated to utilize it to the best advantage to make a strong and satisfactory carry container, and at the same time to avoid wastage of material such as would accrue from cut-outs or cutting away entirely of parts of the sheet material.

Another feature of improvement of the invention is the provision, in a container of the class mentioned, of an improved arrangement of receiving openings whereby the articles may be quickly and easily inserted into position or removed, and also retained in their carrying position so as to prevent them from being damaged by bumping or contacting with each other.

A further object of the invention is to provide, for a container of the class mentioned, an improved handle structure whereby parts of the sheet member may be quickly assembled to form a convenient and comfortable carry handle, and conveniently locked in assembled position.

Other objects of the invention will be in part pointed out in the following detailed disclosure of an illustrative but preferred embodiment of the invention, and will be in part obvious in connection therewith.

The invention accordingly comprises the features of construction, combination of elements, and arrangement of parts, which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the claims.

For a more comprehensive disclosure of the nature, objects and advantages of the invention, reference is had to the following detailed description and to the accompanying drawing in which:

Fig. 1 is a perspective view of the improved container in set-up or assembled condition;

Fig. 2 is an end elevation of the container shown in Fig. 1, bottles being indicated in dotted outline substantially in the normal position in which they are carried;

Fig. 3 is an enlarged transverse sectional view taken on line 3—3 of Fig. 1 through the handle element and locking tongue, and shown in the locking arrangement;

Fig. 4 is a sectional view similar to Fig. 3 taken on line 4—4 of Fig. 1; and

Fig. 5 is a plan view of the blank or sheet member which has been fabricated or formed to enable it to be set up quickly to form the container.

Referring to the drawing for a detailed description of the illustrative embodiment there shown, a sheet member or blank 10 is provided of any suitable material such as cardboard, fiberboard, pasteboard, and the like. The weight and strength of the blank may be varied for the accommodation of articles of different sizes and weights. The blank is preformed or fabricated to adapt it for being set up or assembled into the form of the complete container, as later described.

As shown, the blank 10 is formed with transversely extending weakening lines 11 preferably extending entirely thereacross, and designed to weaken the blank to bending or folding action. These weakening lines may be formed in any preferred manner, such as creasing or scoring the sheet material to weaken it slightly to bending action, and to confine the bends or folds to the courses of the lines. In the embodiment shown these lines are formed by creasing or offsetting the fibers slightly along narrow zones whereby to facilitate the bending or folding action without weakening the tensile strength of the material. The weakening lines 11 are spaced apart longitudinally a sufficient distance to form a bottom or article supporting section 12 upon which the bottles or similar articles rest and are supported.

Parts of the blank at opposite sides of the bottom section 12 are similarly fabricated and therefore a detailed description of one of these op-

posing parts will be sufficient. Transverse weakening lines 13, 14 and 15 similar in structure to the lines 11 are spaced outwardly at convenient distances from the weakened line 11, providing means along which the blank may be bent or deflected. The weakened lines 13 and 14 extend substantially from the blank edges inwardly only part way across the blank and across the opposite ends of structural tension members 16, designed to carry the load of the container. These tension members are further defined by the cuts or slits 17 in the sheet. Although the cuts 17 may extend only part way through the sheet material to weaken it sufficiently for convenient severance, they preferably extend entirely through so as to provide for separation. The cuts may be straight or curved, being shown as curved for accommodation of the rounded sides of the articles such as the bottles B shown.

Connecting the ends of the opposed cuts 17 near to the bottom section 12 is a similar cut or slit 18 which meets the cuts 17 substantially in the line of the transverse weakened lines 13.

Thus the cuts 17 and 18 define or outline a supporting tab or flap 19 integrally connected to the blank along a line forming a continuation of the weakened lines 14. Another tab or flap 20 is formed by the cut 18, being similarly integrally connected with the blank along a line forming a continuation of the weakened lines 13.

It will be noticed that the supporting flaps or sections 19 are a vis-a-vis relation with reference to each other, that is, they face toward each other. Also, it will be noticed that the flaps 19 and 20 have their adjacent edges formed by the same cut 18, and these edges therefore are complementary with each other. By means of this arrangement all of the material of the blank is utilized at this point to provide elements designed to accomplish useful functions as will appear later. No material is cut out or wasted. The amount of material required in each blank is thus kept at a minimum, and economical production promoted.

The lower merging ends of the cuts 17 and 18 extend downwardly so as to provide the struts or supports 21 depending from the lower sides of the flaps 19.

The spacing of the weakened lines 11 and 13 provides a lower short wall section 22 which together with the flap or section 20 forms the outer article engaging wall of the completed or set-up container.

Outwardly of the blank beyond the flaps 19 and 20 and adjacent to the weakened fold lines 15, are article engaging and supporting members 23, three being shown side by side for engagement with the three articles or bottles of each row at opposite sides of the container. As shown, these supporting members or retainers 23 are formed by providing inner and outer cuts or slits 24 short distances apart and terminating substantially in line with the weakened lines 15. In this connection, it will be noted that the weakened lines 15 each preferably includes aligned sections longitudinally spaced apart. These aligned sections need extend only across the bases or connecting ends of the retainers 23 so as to permit them to be readily swung outwardly into article engaging position. The retainers 23 of the present embodiment are in the form of loops adapted to receive the upper ends of bottle necks. The small tongues or sections 24' of blank material extend inwardly from the lines 15 and may be utilized as supports for the adjacent ends of the bottles.

The parts of the blank lying outwardly of the base weakening lines 11 provide generally the wall sections 25 of the container. Each wall section 25 is provided at its outer end with a handle formation for carrying the container. One of these handle formations is provided by means of a cut or slit 26 similar to the slits 17 and 18 outlining a handle flap 27 which is integrally connected to the blank along a weakened line 28 extending along the edge portion or base of the flap and which may be formed similar to the weakened lines 11 thus providing a hinge on which the flap may be swung. In line with this hinge 28 is a slot 29 extending through the blank and designed to receive a locking tab or element. The slot 29 may be formed by cutting out a small amount of the sheet or merely by making a cut or incision therethrough without removing any material. The opposite handle formation includes an opening 30 about the same size as the handle flap 27 and through which the latter may pass. Adjacent to and extending partially across the opening 30 is a locking tongue 31 preferably having outwardly bulging opposite lateral edges, and being adapted to extend through the locking slot 29 of the opposite handle member. The locking tongue is preferably of sufficient width so as to fit closely within the slot 29 and to be retained therein by virtue of the outwardly protruding opposite tongue edges.

A blank sheet member fabricated as above described may be very quickly and easily assembled or set up into article containing and carrying position as shown in Figs. 1 and 2. When the blanks are in sheet form as shown in Fig. 5, they are entirely flat and may be stacked one upon another for storage or transportation. The nature of the fabrication is such as to be readily accomplished by automatic machinery.

When it is desired to set up the fabricated blank to form the container of Fig. 1, the opposite wall sections 25 are bent or folded upwardly along the weakened lines 11. These wall sections are then folded inwardly toward each other upon the lines 13, and upwardly and outwardly along the lines 14. This movement brings the load carrying tension sections 16 into inwardly and upwardly inclined positions and brings the article supporting flaps 19 and 20 into inner and outer offset relation with reference to each other, the flaps 19 and 20 retaining substantially their original position with reference to the blank; this is for the reason that these flaps are not weakened at their bases or integral attachments with the blank. In this manner as the wall sections are manipulated as described, a container receiving opening 32 is formed adjacent to the inclined tension sections 16, and defined by the latter and the article supporting sections or flaps 19 and 20.

This movement of the wall sections 25 inwardly and upwardly upon the lines 13 and outwardly and upwardly upon the lines 14 brings said wall sections at the upper parts thereof into positions close to each other substantially on the medial or central axis of the container so as to provide a two-ply inner supporting wall which is disposed medially between the two opposing rows of articles or bottles B as shown in Fig. 2. The bottles in the illustrative embodiment are arranged in two opposing rows of three each. When the wall sections are thus moved together,

the handle flap 27 is then displaced through the adjacent handle opening 30 and turned upwardly into the position shown in the drawing thus forming a smooth supporting surface of ample dimensions for easy supporting contact with the hand, making it comfortable for the user. As shown in Figs. 2, 3 and 4 of the drawing, it will be noted that the handle flap 27 and the locking tongue or flap 31 are turned or deflected upwardly at the opposite sides of the handle element, thus providing a handle reinforcement and an enlarged handle section. At the time that the handle flap 27 is passed through the handle opening 30, the locking tongue 31 is directed into engagement with the locking slot 29. When the wall sections are thus moved into close contacting relation the locking tongue is disposed through the slot and is then deflected upwardly into final position. Thus by a very simple operation the container blank is set up into container form and the wall sections 25 locked together in permanent relation.

As shown in Figs. 1 and 2, the articles or bottles may be inserted from above through the receiving opening 32 into supported position upon the bottom section 12. The article retainers or loops 23 are swung outwardly into operative position and passed in holding relation over the bottle necks. The inclined wall sections 16 and also the inner and outer sections 19 and 20 engage with the lower parts of the bottles to retain them in their normal carried position on the bottom 12. In this manner the bottles are fully supported and protected during carrying of the container. When the bottles are in normal carried position, it will be noticed that the two-ply medial wall section 25 is positioned between the adjacent bottles so as to cushion and protect them from engagement with each other, avoiding breakage and marring of the surfaces thereof. It will be noticed furthermore, that the flaps 19 form downward extensions of the two-ply wall section 25 thus further protecting and cushioning the bottles at the lower or base portions thereof as clearly shown in Figs. 1 and 2. The medial wall section 25, the flaps 19, and the outer wall sections 20 and 22 are all in generally upright position so as to extend along the adjacent surfaces of the bottles in face to face contacting relation therewith. The struts or supports 21 at the lower edges of the flaps 19 engage with the bottom 12 so as to avoid movement of the upper part of the container too far downwardly before the bottles are inserted into position in the container.

Due to the inclined positioning of the load carrying tension members 16 it will be noticed that there is a tendency to pull the lower parts of the container at opposite sides of the rows of bottles inwardly toward each other when the weight of the bottles is placed upon the bottom 12 and the whole supported by the carrying handle thus transmitting the load through the tension members 16. Due to this action the outer wall sections and sustaining flaps 20 are moved inwardly slightly toward each other and the medial wall sections 19 and 25 are urged outwardly, whereby the bottles are closely engaged or gripped between the opposing supporting elements and thus retained securely in position. Rattling or bumping of the bottles together is avoided. The two-ply cushioning elements 19 and 25 assist in this function.

Since certain changes may be made in the above construction 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 drawing shall be interpreted as illustrative and not in a limiting sense.

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

1. In an article container, in combination, a sheet member having a bottom article supporting section, opposed walls rising above said bottom section and having their upper parts adjacent to each other, and a handle flap at the upper part of one of said walls displaceable through an opening in the adjacent wall, the upper wall part on which said handle flap is located having a locking slot adjacent to the base of said handle flap, said slot terminating at its opposite ends intermediate the length of said handle flap, and a locking tongue on the other upper wall part adjacent to said opening and positioned for engagement in locking relation with said locking slot.

2. In an article container, in combination, a sheet member having a bottom article supporting section, opposed walls rising above said bottom section and having their upper parts adjacent to each other, a handle flap at the upper part of one of said wall parts displaceable through an opening in the adjacent wall part, the upper wall part on which said handle flap is located having a locking slot adjacent to and extending along the base of said handle flap, said slot terminating at its opposite ends intermediate the length of said handle flap, and a locking tongue on said adjacent wall part adjacent to said opening and positioned for engagement with said locking slot in locking relation therein, said handle flap and said locking tongue being turned upwardly at opposite sides of the upper extremities of said walls to form a reinforced and enlarged handle section.

3. In an article container, in combination, a sheet member having a bottom article supporting section, opposed walls rising above said bottom section and having their upper parts adjacent to each other, a handle flap at the upper part of one of said wall parts and hinged to the latter substantially along its base so as to be displaceable through an opening in the adjacent wall part, the upper wall part on which said handle flap is hinged having a locking slot positioned substantially along the hinged base of said handle flap, said slot terminating at its opposite ends intermediate the length of said handle flap, and a locking tongue on said adjacent wall part and extending inwardly from the edge of said wall part opening in position for engagement in said locking slot in locking relation therein, said handle flap and said locking tongue being turned upwardly at the opposite sides of said upper wall parts to form a reinforced and enlarged handle section.

WILLIAM F. GIES.
WILLIAM J. WELLS.