July 7, 1964 J. C. SPERY 3,140,036

WRAPPER TYPE CAN CARRIER

Filed Oct. 17, 1961

FIG. 1

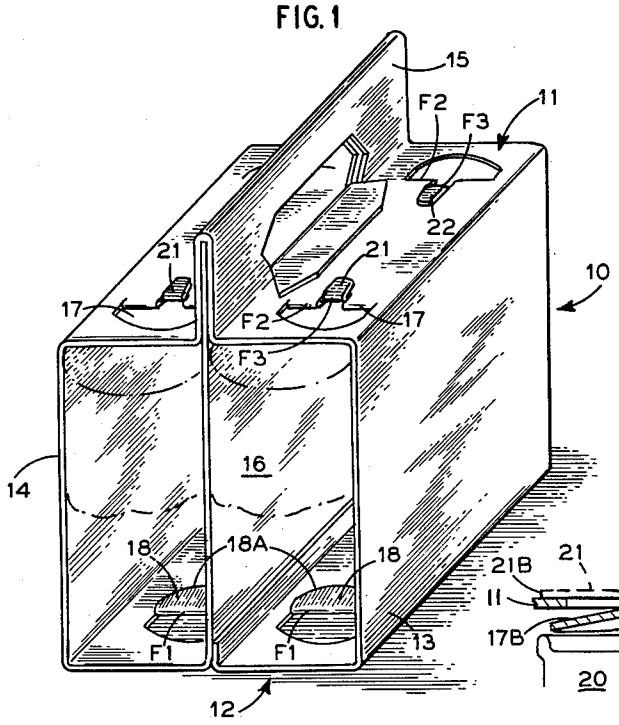


FIG. 2

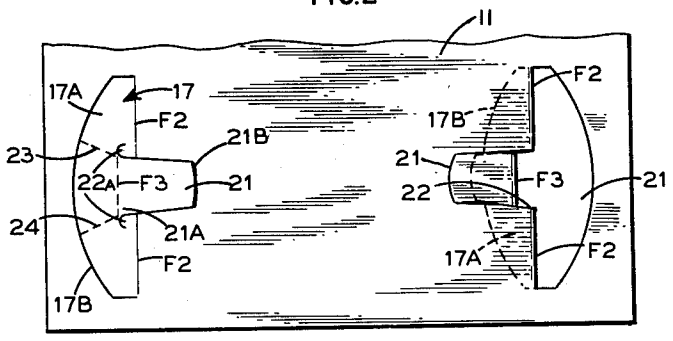
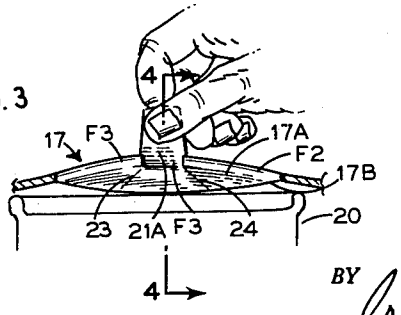


FIG. 3



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United States Patent Office 3,140,036 Patented July 7, 1964

3,140,036

WRAPPER TYPE CAN CARRIER

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Filed Oct. 17, 1961, Ser. No. 145,678
12 Claims. (Cl. 229—40)

This invention relates to a wrapper type can carrier, and more specifically to a carrier having an improved can retaining flap.

In modern day merchandising it is common practice to package and distribute canned products such as beer, soda and various other canned goods, in wrapper type can carriers. Generally such carriers are constructed and arranged to accommodate several cans. Known constructions of such wrapper type carriers usually comprise a carrier having top, bottom and connecting side panels to define a closed figure having open end portion. The more commonly known arrangements are sized to accommodate six cans arranged in two rows of three cans each disposed in side by side relationship. In order to retain the cans in place within such carriers, it has been customary to blank out of the top and bottom panels aligned can retaining flaps which are folded inwardly of the carrier to lie against the inner side of its respective panel. The arrangement is such that as the cans are loaded the flaps folded under the respective top and bottom panels engage the chime portion of the can and thus retain the can in position within the carrier. Generally it was customary to provide flaps for retaining the outermost or end cans only in the row, with the middle can being held in place by the action of the retained cans on either side thereof.

Because the canned goods are tightly packed within such carriers, and because such carriers are formed of relatively heavy paperboard cardboard and the like, extreme difficulty is encountered when one desires to remove a can from the wrapper. Usually a struggle is required to release a can, and then only at the expense of destroying or tearing the wrapper carrier. Difficulty is also encountered with carriers which have so-called "easy tear" lines to facilitate removal of a can. Carriers having "easy tear" lines which will function with reliability will nevertheless result in destruction of the carrier.

In addition to the difficulties and inconveniences confronting one in removing a can from the carrier of known construction, a further disadvantage resulting from such construction is noted in the retailing of can goods so packaged. Oftentimes a consumer desires to buy less than the number of cans contained in a given carrier. Therefore, numerous cartons or carriers of prior known construction are unnecessarily destroyed while still on the shelf of retail outlets. Thus the remaining cans fall loose and are likely to be dented and damaged, resulting in excessive waste or loss of sales.

Therefore, an object of this invention is to overcome the above noted disadvantages by providing a wrapper type carrier with an improved, readily releasable can retaining flap for permitting the removal of an individual can without resulting destruction of the carrier.

Another object is to provide an improved can retaining flap that is relatively simple to form, and positive in operation.

A feature of this invention resides in the provision of an improved can retaining flap which includes a pull tab portion blanked integral with the can retaining portion of the flap and which is foldable outwardly of the carrier.

Another feature of the invention is to provide the improved can retaining flap with preformed crease lines to facilitate the operation thereof.

Other features and advantages will become readily apparent when considered in view of the description and drawings in which:

FIG. 1 is a perspective view of a wrapper type can carrier with improved flap construction in accordance with this invention.

FIG. 2 is a plan view of a portion of the top panel illustrating one flap in its blanked inoperative position for purposes of illustration and another flap flolded in operative can retaining position.

FIG. 3 is a fragmentary section view to illustrate the operation of the flap with respect to a can.

FIG. 4 is a section view taken along line 4—4 of FIG. 3.

Referring to the drawings, there is shown in FIG. 1 a perspective view of a wrapper type carrier **10** in which a plurality of can goods, such as beer, soda and various other can goods are packaged. Generally such carriers are constructed and arranged to contain six cans in two rows of three cans each.

Carriers of this type are generally formed of a single blank of sheet material such as cardboard, paperboard and the like, folded to form a top panel **11**, bottom panel **12** and side panels **13, 14** connecting the same to define a rectangular closed figure having open end portions. If desired, a handle portion **15** may be formed integral with the top panel as shown. Also an intermediate panel **16** may be provided.

To retain the cans in position within the carrier so as to prevent unintentional removal of the cans, the top and bottom panels **11, 12** are provided with aligned can retaining flaps **17, 18**, respectively. Generally such flaps are provided to retain the end or outermost cans only. As shown the bottom panel **12** has blanked or die cut therefrom flap **18** which is adapted to be foldable inwardly of the carrier about a foldline **F1** by which it is integrally connected to the bottom panel **12** proper. Each of the flaps **18** has an arcuate edge **18A** shaped to conform to the chime of a can retained thereby in a well known manner.

In accordance with this invention, an improved can retaining flap **17** for engaging the top portion of the can **20** is provided. As best shown in FIG. 2, the flap **17** of the top panel **11** comprises a blanked out can retaining portion **17A** which has an arcuate edge **17B** similar to that of the bottom flap **18** which is foldable inwardly of the carrier along foldline **F2**, about which it is integrally connected to top panel **11**.

Formed integral with the can retaining portion **17A** is a pull tab **21** which is also blank or die cut out of the top panel **11**. As seen in FIG. 2 the base **21A** of the tab **21** is die cut so as to extend into the plane of the can retaining portion **17A**. It is to be further noted that the tab **21** tapers inward toward its outer end portion **21B**. Note that the base **21A** of the tab is die cut with a crook shaped cut **22A**. This forms a shoulder to facilitate lifting the top panel, as will be hereinafter described.

The arrangement is such that in the folded operative position, the can retaining portion **17A** of the flap is reversely folded inwardly of the carrier so as to engage to chime of a can **20**. The pull tab **21** which is folded over therewith, is then folded about foldline **F3**, which is formed in the plane of the can retaining portion **17A** at the base **21A** of the tab **21**. As shown in FIG. 2 the foldline **F3** is disposed inwardly of the notch or space **22** in the top panel from which the tab **21** was blanked. With the tab **21** positioned within this space **22**, it will be noted that in the folded position of the tab, as seen in the dash lines of FIG. 4, the tapering edge portions of tab **21** and the tapering edge of the notch **22**, cooperate to frictionally retain the tab **21** reversely folded so as to be substantially flush against the top panel **11**. Because the tab is folded about foldline **F3**, inwardly of notch **22**, its free

end 21B overlies the top panel 11 by which it may be easily grasped.

Thus to provide for individual removal of an end can, one need only to move the tab 21 to vertical position, as seen in solid line of FIG. 4, and apply a pulling force thereon as seen in FIG. 3. Such a force causes the can retaining portion 17A to arc outwardly and to be pulled free of the can 20, thereby displacing the obstructing retaining flap portions 17A which secures the can.

It is to be noted that displacing the can retaining portion 17A, also effects displacement of the top panel 11. To facilitate further arcing of the can retaining portion 17A the latter may be provided with preformed crease lines 23, 24 which extend radially outwardly from the base 21A of the tab 21 to the periphery of the retaining portion 17B.

From the foregoing description it will be noted that the end cans may be individually removed simply and quickly with a minimum of effort, and without the resulting destruction of the carrier. Consequently a consumer may purchase less than the number of units dispensed by the described carrier without destroying the carrier. Therefore, much of the waste or loss of sale resulting from destroyed carriers while on the shelf of a retail outlet is greatly minimized.

While the instant invention has been disclosed with reference to a particular embodiment for practicing the same, it is to be appreciated that the invention is not to be taken as limited to all of the details thereof as modifications and variations thereof may be made without departing from the spirit or scope of the invention.

What is claimed is:

1. For use in a wrapper type can carrier having connected opposed wall panels, the improvement of a can retaining flap cut from a wall panel, said flap including a can chime engaging portion and an integrally connected lift tab cut out of said panel, said chime engaging portion and connected tab being reversely folded about a foldline disposed in the plane of the wall panel so that said chime engaging portion is disposed inwardly of said wrapper carrier to lie adjacent the inner surface of said panel, and said tab adapted to be folded relative said chime engaging portion to extend outwardly of said carrier to provide a grip whereby a pull exerted on said lift tab causes said chime engaging portion and said panel to lift away from the chime of a retained can to facilitate release of the can retained thereby without causing injury to said wrapper carrier.

2. The invention as defined in claim 1 wherein said tab has a base portion cut out of the plane of said chime engaging portion and said tab being foldable relative to said chime engaging portion about a base foldline spaced from the foldline of said chime engaging portion.

3. The invention as defined in claim 2 wherein said lift tab has its edge portion tapering inwardly toward its free end so that in its outwardly and reversely folded position the lift tab is frictionally retained by the tapered edges of the tab notch in said panel.

4. For use in a wrapper type can carrier having connected opposed wall panels, the improvement of a can retaining flap cut from a wall panel, said flap including a can chime engaging portion and an integrally connected lift tab cut out of said panel, said chime engaging portion and connected tab being reversely folded about a foldline disposed in the plane of the wall panel so that said chime engaging portion is disposed inwardly of said wrapper carrier to lie adjacent the inner surface of said panel, and said tab adapted to be folded relative said chime engaging portion to extend outwardly of said carrier to provide a grip whereby a pull exerted on said lift tab causes said chime engaging portion and said panel to lift away from the chime of a retaining can to facilitate release of the can retained thereby without causing injury to said wrapper carrier, said tab having a base portion cut out of the plane of said chime engaging portion and said tab being foldable relative to said chime engaging portion about a base foldline spaced from the foldline of said chime engaging portion, said chime engaging portion including a pair of foldlines extending radially between the outer ends of said base foldline and the periphery of said chime engaging portion to enhance displacement of said chime engaging portion when said tab is pulled.

5. For use in a wrapper type can carrier having opposed wall panels, the improvement of a readily releasable can retaining flap cut from one of said panels, said flap including a can chime engaging portion having an arcuate periphery conforming to the chime of said can and an integrally connected cut out lift tab, said chime engaging portion and connected tab being reversely folded about a foldline extending between the arcuate ends of said chime engaging portion and an intermediate point of said lift tab whereby said chime engaging portion is adapted to be reversely folded inwardly of said wrapper carrier to underlie its connected panel, and said tab having a base line in the plane of said chime portion about which said tab is folded relative said chime engaging portion so as to extend outwardly of said carrier so that a pull exerted on said lift tab causes said chime engaging portion of said flap to rise out of the chime of a retained can to facilitate releasing the same.

6. For use in a wrapper type can carrier having opposed wall panels with can retaining flaps, the improvement of a readily releasable can retaining flap cut from one of said panels, said flap including a can chime engaging portion having an arcuate periphery adapted to conform to a chime portion of a can, a lift tab integrally connected to said chime engaging portion; said chime engaging portion and connected tab being reversely folded about a foldline extending between the ends of said chime engaging portion and an intermediate point of said lift tab, said lift tab having a base portion cut out of the plane of said chime engaging portion, said chime engaging portion being reversely folded inwardly of said wrapper carrier to lie against its connected panel, said tab being reversely folded relative said chime engaging portion to extend outwardly of said carrier so that a pull exerted on said lift tab causes said chime engaging portion of said flap and overlying panel to lift away from the chime of a can retained between opposed panels, and said chime engaging portion including a pair of foldlines extending radially between the ends of said base foldline and the arcuate periphery of said chime retaining portion to enhance displacement of said chime engaging portion when said tab is pulled.

7. For use in a wrapper type can carrier having opposed wall panels with can retaining flaps, the improvement of a readily releasable can retaining flap cut from one of said panels, said flap including a can chime engaging portion having an arcuate periphery adapted to conform to a chime portion of a can, a lift tab cut from said panel and integrally connected to said chime engaging portion; said chime engaging portion and connected tab being reversely folded about a foldline extending between the arcuate ends of said chime engaging portion and an intermediate point on the notch of said lift tab, said tab having a base portion cut into the plane of said chime engaging portion, said chime engaging portion being reversely folded inwardly of said wrapper carrier to underlie its connected panel, said tab being reversely folded relative said chime engaging portion about a foldline spaced from the foldline of said chime engaging portion to extend outwardly of said carrier to provide a grip whereby a pull exerted on said lift tab causes said chime engaging portion of said flap and overlying panel to lift away from the chime of a can retained between said opposed panels, and said chime engaging portion including a pair of foldlines extending radially between the ends of said base foldline and the arcuate periphery of said chime retaining portion to enhance displacement of said chime engaging portion when said tab is pulled.

8. For use in a wrapper type can carrier having connected opposed wall panels, the improvement of a can retaining flap cut from a wall panel, said flap including a can chime engaging portion and an integrally connected lift tab cut out of said panel, said chime engaging portion and connected tab being reversely folded about a foldline disposed in the plane of said wall panel so that said chime engaging portion is disposed inwardly of said wrapper carrier to lie adjacent the inner surface of said panel, and said tab extends in a plane coincident with said reversely folded chime engaging portion.

9. In combination with a wrapper type carrier having opposed wall panels adapted to hold therebetween an article of commerce, the improvement of means blanked out of one of said panels which is adapted to be reversely folded inwardly of the carrier to firmly hold an article in place between the panels of said carrier, and means blanked from said one panel formed integral with said first mentioned means to provide a lift therefor so as to effect disengagement of said first mentioned means from said article to release the article from said carrier.

10. The invention as defined in claim 9 wherein said second mentioned means is adapted to be reversley folded outwardly of said carrier about a foldline disposed in the plane of said first mentioned means whereby said second means is repositioned in the notch from whence blanked and frictionally retained therein.

11. In combination with a wrapper type can carrier having opposed wall panels, a can retaining flap blanked out of one of said panels, said flap including a can chime engaging portion adapted to be reversely folded about a foldline disposed in the plane of said panel, and means integrally formed with said chime engaging portion to provide a lift grip to facilitate the release of said chime engaging portion from a chime of a can disposed within said carrier.

12. In combination with a wrapper type carrier having opposel panels, the improvement of a can retaining flap blanked out of one of said panels, said flap including a can chime engaging portion adapted to be folded inwardly of said carrier about a foldline disposed in the plane of said one panel, and a lift tab blanked out of said one panel and formed integral with said can retaining portion, said tab and notch from whence blanked having complementary tapering edge portions, and said tab being adapted to be reversely folded outwardly of said carrier about a foldline disposed in the plane of said can retaining portion, so that in its folded position said lift tab is frictionally retained in folded position and said can retaining portion is positively maintained in its inwardly folded position during a can loading operation.

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