Dec. 24, 1957 T. W. FOSTER 2,817,473

CAN HOLDER

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Fig. 1

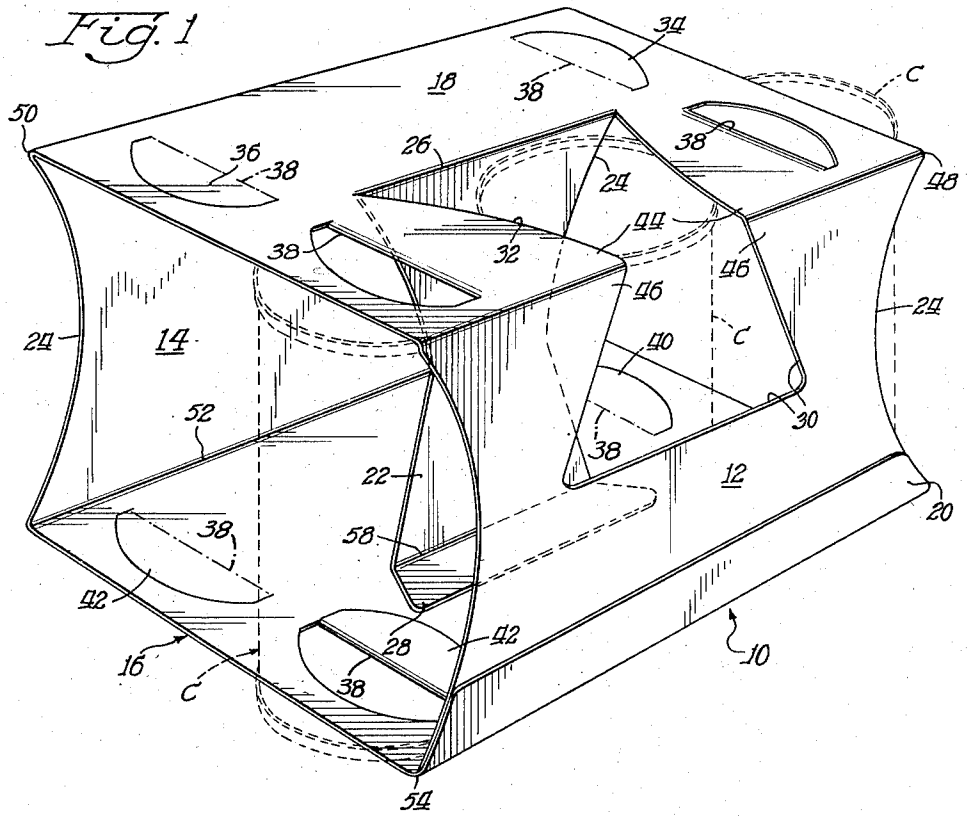
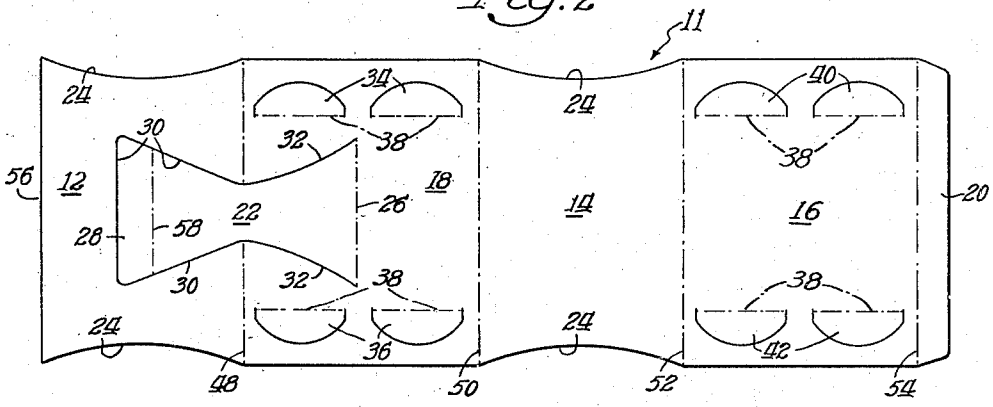


Fig. 2



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CAN HOLDER

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2 Claims. (Cl. 229—40)

The present invention relates to can carriers for packaging a plurality of cans or the like as a unit for carrying purposes. More specifically, the invention relates to a one-piece paperboard carrier or holder which is in the form of a sleeve adapted to encircle the packaged cans and having a centrally disposed partition wall and infolding flaps or tabs adapted to engage the end flanges of certain of the cans to prevent their movement laterally out of the holder.

Among the objects of the invention is the provision of a novel form of can holder or carrier of the type outlined above which is formed from a single blank of the paperboard material, the length of which, for a given number of cans, is considerably less than has theretofore been possible in the production of similar carriers of this type. By such an arrangement, a marked saving in paperboard material is effected without sacrificing any of the advantageous features of packages of this type such as rigidity of the erected package or the strength thereof.

In carrying out the above mentioned object, extreme simplicity in the design of the carrier blank has been attained so that a carrier designed for packaging six of the cans in two rows, for example, will require only four serially arranged, hingedly connected, wall panels and an attaching flap in the blank, with the partition wall being formed by cutting out a portion from a pair of adjacent panels so that such wall is provided without adding length to the blank.

Another object of the invention is to provide a carrier construction of the type described having a partition wall cut from portions of a top and side wall, in which the partition wall includes an integral glue flap secured to the bottom panel whereby a strong and sturdy carrier is formed having a minimum amount of paperboard material.

Another object of the invention is to provide a can carrier or holder of this sort in which the void created in the adjacent wall panels for production of the partition wall as described above, affords a display opening in the erected and loaded carrier for visual inspection of a centrally located can so that the contents, brand or other information on the label may be ascertained.

A further object of the invention is to provide a can carrier having a medial partition wall as described above and which is constructed in such a manner that the partition wall is not required to bend in one direction or the other so that it will at all times remain uncreased, thus enabling it to lend its full support in the erected carrier structure.

Other and more specific objects will become apparent as the description of the invention proceeds.

In the accompanying single sheet of drawings forming a part of this specification, one embodiment of the invention has been shown.

In these drawings:

Fig. 1 is a perspective view of a can carrier or holder

constructed in accordance with the principles of the present invention, and

Fig. 2 is a plan view, on a somewhat reduced scale, of the blank from which the carrier of Fig. 1 is formed.

The invention has been illustrated in connection with a carrier adapted to provide a convenient carryout for a retail store customer to take home six cans of food or beverage, the cans having recessed or chimed ends. The can holder **10** of Fig. 1 is formed from a blank **11** of foldable paperboard shown in Fig. 2. The carrier **10** involves in its general organization a pair of side walls **12** and **14** connected together by a bottom wall **16** and a top wall **18**. A narrow glue flap **20** provides the hinged connection between the walls **12** and **16**. As shown in Fig. 2, the panels **12**, **18**, **14** and **16** are arranged in the blank serially in the order named with the glue flap panel **20** being hingedly connected to the panel **16**. A relatively narrow partition wall **22** extends between the top and bottom walls **18**, **16** respectively and divides the generally tubular carrier structure longitudinally into two adjacent open-ended compartments, each adapted to receive therein three of the cans in longitudinal alignment with the axes extending vertically.

The longitudinal extent of the top wall **18**, bottom wall **16** and side walls **12** and **14** is less than the length of a row of cans placed side by side and against one another with their axes parallel so that parts of the end cans in each row project beyond the open ends of the tubular carrier as indicated in Fig. 1. Preferably the longitudinal extent of the top and bottom walls **18** and **16** respectively is equal to twice the diameter of one of the cans so that approximately a semi-cylindrical portion of each end can in each row will extend beyond the upper and lower marginal transverse edges of the carrier. The opposite edges of the two side walls **12** and **14** are relieved as at **24** to provide an inwardly curved edge and these edges contribute further toward effecting a display of the endmost cans of each row.

The partition wall **22** is in the form of a strut which extends between the top and bottom walls, it being hingedly connected along a longitudinal extending hinge line **26** to the top wall **18** and connected to the bottom wall **16** by an attaching flap **28**. The panel **22**, in the blank of Fig. 2 from which the partition wall is formed, is in part cut from a generally central region of the panel **12** and in part cut from an adjoining central region of the panel **18**, the cut being made along lines **30** in the panel **12** and along lines **32** in the panel **18**. The panel and partition wall **22** is comparatively wide at its opposite ends and is constricted in its medial regions for purposes that will be made clear presently. The flap **28** is glued or otherwise attached to the bottom wall **16** in the medial regions of the latter and, when the carrier assumes its squared set up or erected condition, this flap of course extends at a right angle to the partition wall **22** to which it is hingedly connected.

The horizontal top wall panel **18** is formed with two pair of arcuate cut-out tabs **34** and **36** respectively adjacent opposite longitudinal edges of the panels and the tabs of each pair are hingedly connected to the panel body along aligned hinge lines **38** parallel to the panel edges. In the erected structure, the tabs **34** and **36** are adapted to be swung inwardly of the carrier throughout an angle of approximately 180° out of the plane of the wall **18** so as to overlie portions of the circular ends of the outermost cans in each row after they have been inserted into the tubular carrier through the open ends thereof and engage the inner surfaces of the can flanges so as to lock the cans within the carrier against longitudinal displacement relative to the carrier or lateral displacement relative to one another. The bottom wall panel **16** is provided with similar tabs **40** and **42** which

are adapted to underlie portions of the circular ends of the endmost cans in each row and similarly retain them against longitudinal displacement relative to the carrier.

In Fig. 1 a single row of cans C has been illustrated in dotted outlines as being inserted into the carrier on one side of the partition wall 22. It will be observed that the middle can of this row of cans may be viewed through the opening defined by the cuts 30 and 32 and that, because the partition wall panel 22 is formed with a restricted medial region as described above, a pair of generally triangular restraining areas 44 and 46 are provided above the can end and at each side of the center of the middle can to prevent displacement of the can outwardly through the opening either vertically or horizontally. It is also to be noted that the longitudinal extent of the side wall opening at the bottom edge thereof, i. e. at its region of maximum width, is at least as great as the diameter of a can and by virtue of this fact wide label display is made possible, this feature being particularly desirable when cans containing several commodities are packaged in a single unit. The opening defined by the cuts 30 and 32 may also be employed to permit access to the intermediate can so that the latter may be rotated so as to bring the label into full view.

Referring now to Fig. 2, the fold lines between the various serially arranged panels 12, 18, 14, 16 and 20 have been designated, reading from left to right, at 48, 50, 52 and 54. In order to process the blanks to produce finished carriers in flat collapsed form ready for delivery to the user and capable by him of being conditioned for use, the blank is folded along the line 50 so as to bring the extreme left hand edge 56 of the blank into register with the fold line 54. The glue flap 20 may then be applied and secured to the adjacent edge portion of the panel 12. The attaching flap 28 provided on the partition wall panel 22 will then overlie a corresponding area on the face of the panel 16 and it will then be applied and secured to this area which is located merely by the act of initially folding the blank along the line 50. Because of the fact that the distance between the hinge lines 26 and 58 is equal to the width of the panel 12 and also to the width of the panel 14, the panel 22 forms, in combination with these latter two panels and with the top and bottom wall panels 18 and 16 respectively, two parallelogram structures which are readily expandable from their collapsed form to the erected positions of 90° angularity which they assume in the set-up carrier of Fig. 1.

While the present description sets form a preferred embodiment of the invention, various changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present

embodiment be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

I claim:

1. An open-ended holder for two parallel rows of flanged-end cans of predetermined height and diameter, said holder comprising a closed sleeve of foldable paperboard material including top and bottom walls adapted to fit relatively closely against the ends of the cans of both rows, opposed outside walls hingedly joining said top and bottom walls and each adapted to extend tangentially with respect to the side walls of all of the cans in one row thereof, said holder being of a length between its open ends which is less than the length of the individual rows of cans for which the holder is adapted, the top and bottom walls each being formed with integral flap extensions adjacent each end of the holder of a length less than a can diameter and having edge portions conformable to a portion of the interior surface of the can flanges, said flaps being foldable interiorly of the sleeve to a position closely adjacent its supporting wall but urged away from said wall by the resilience of the paperboard material whereby the flaps are adapted to engage edgewise against a portion of an end can in a row of contained cans to retain the row against longitudinal displacement within the holder, a portion of said top wall which is disposed on one side of the longitudinal center line of the wall and a portion of one outside wall which forms an extension of said first mentioned portion being cut from said top and outside wall respectively and extending downwardly in the central vertical longitudinal plane of the holder to constitute a reinforcing medial partition wall within the holder for maintaining an intermediate can on one of the rows separated from an intermediate can on the other row.

2. An open-ended holder as claimed in claim 1 including an attaching flap hingedly secured to the lower end of the partition wall and affixed to the inside surface of said bottom wall, the hinge line existing between the attaching flap and partition wall being positioned along the longitudinal center line of said bottom wall.

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