

Sept. 25, 1956

E. L. ARNESON
CAN CARRIER PACKAGE

2,764,284

Filed Dec. 18, 1952

2 Sheets-Sheet 1

Fig. 1

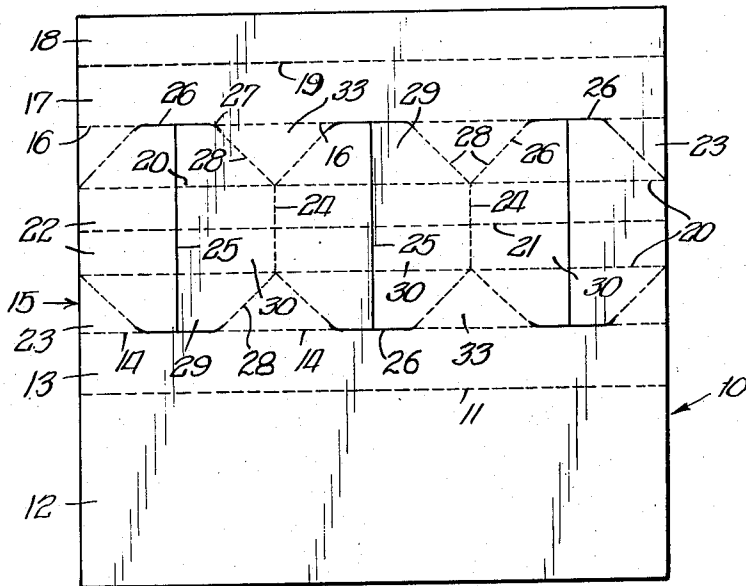


Fig. 2

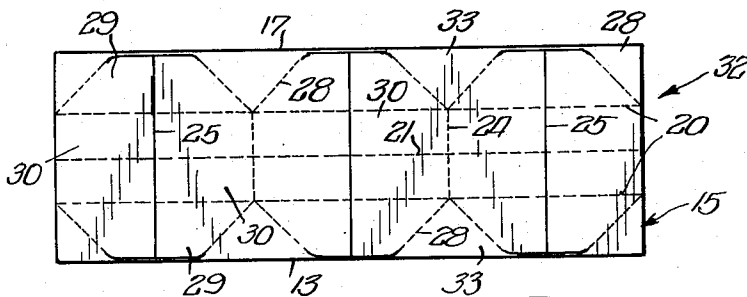
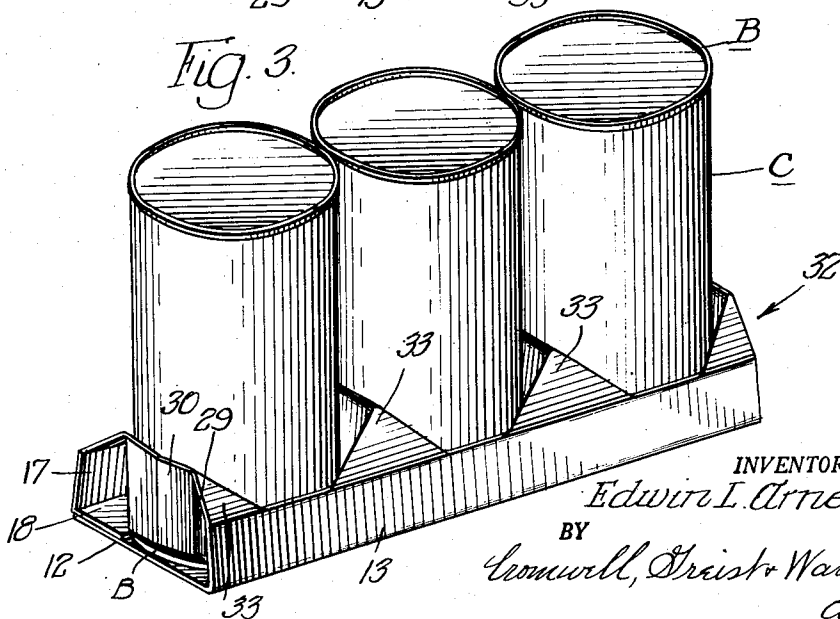


Fig. 3



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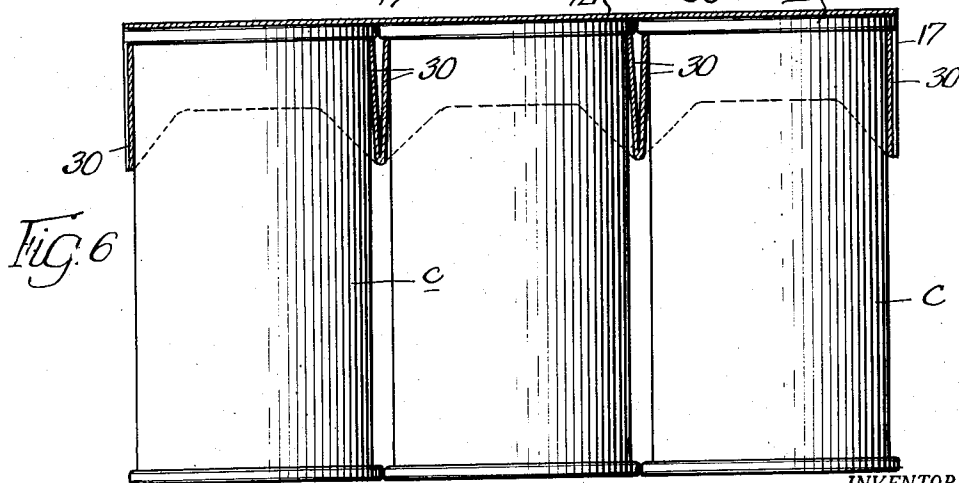
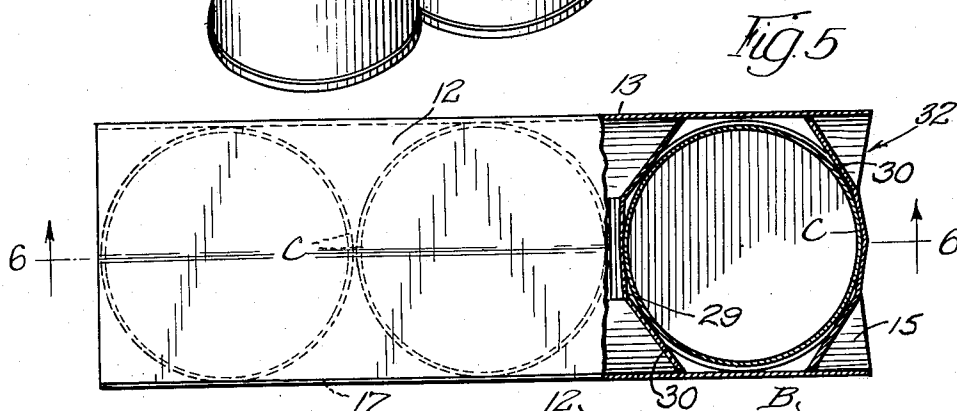
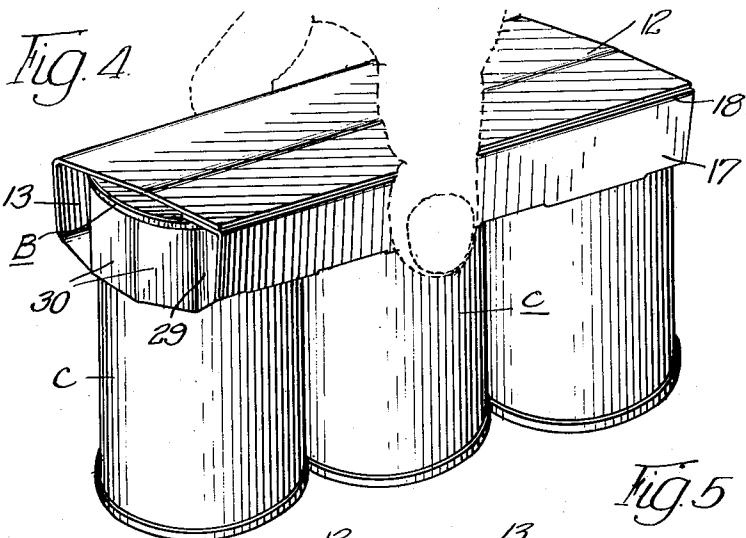
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CAN CARRIER PACKAGE

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Application December 18, 1952, Serial No. 326,647

2 Claims. (Cl. 206—65)

The present invention relates to an improved assemblage of cylindrical can-type containers and a small, compact paper-board carrier packaging the same for convenient handling and transportation.

It is a general object of the invention to provide such a simple portable can package which occupies a minimum of shelf storage space and can be attractively displayed, with the printed or decorated cans themselves supplying the primary desired display and advertising material.

A more specific object of the invention is to provide an improved portable can package, composed as described above, in which the paperboard carrier is fabricated from the smallest possible size of flexible paperboard blank and is fashioned to engage the beads or chimes of a plurality of cans from beneath and to vertically sustain the same for transportation as a unit, the small size of the carrier requiring the masking of only a fraction of the can surface and thus enhancing the display quality of the package.

A further specific object is to provide an improved portable can package involving a plurality of cylindrical chimed cans, arranged with axes parallel and in longitudinal alignment in a single row, and a flexible paperboard carrier of slight depth telescoped over the top end of the cans, the carrier featuring shallow side walls and flexible transverse can gripping panels which contact with the cylindrical sides of the cans and engage upwardly beneath the top beads or chimes thereof to affording a positive lift for the cans when the package carrier is grasped by the user, with the cans in depending relation thereto.

A still further object is to provide a can package featuring a plurality of cylindrical beaded containers and a cellular type carrier telescopically embracing corresponding ends of the packaged cans in snug gripping engagement therewith beneath the beads thereof, in which the cans are readily and quickly insertable in the subdivisions of the carrier, and in which no further provision is required for the lifting and transporting of the package than the gripping and bead engaging features.

The foregoing statements are indicative in a general way of the nature of the invention. Other and more specific objects will be apparent to those skilled in the art upon a full understanding of the construction and use of the improved package.

A single embodiment of the invention is presented herein for purpose of illustration. It will be appreciated that the invention may be incorporated in other modified forms coming equally within the scope of the appended claims.

In the drawings:

Fig. 1 is a top plan view of a rectangular blank of flexible paperboard stock from which the improved carrier of the package is fabricated;

Fig. 2 is a bottom plan view of the completed carrier in an erected condition, prior to insertion of the intended can contents thereof;

Fig. 3 is a perspective view of the cans inserted in the

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carrier of Fig. 2, this view representing an inversion with reference to the proper position of the carrier and package for gripping and transportation.

Fig. 4 is a perspective view of the improved package in the proper position of its carrier component for use;

Fig. 5 is a top plan view of the can carrier package, partially broken away and in horizontal section to better illustrate relationships of component parts; and

Fig. 6 is a view in vertical longitudinal section through the package along a line corresponding to line 6—6 of Fig. 5.

Referring to Fig. 1 of the drawings, the blank of flexible paperboard stock from which the improved carrier of the subject package is constructed is generally indicated by the reference numeral 10. For the carrier package of three-can capacity chosen for illustration, the blank is approximately square; it is rectangular in any case. Blank 10 is subdivided by longitudinally extending creases, horizontal as viewed in Fig. 1, as follows: A longitudinal crease 11 hingedly connects a relatively large rectangular panel 12, which ultimately constitutes a top member of the carrier when the latter is completed and ready for use, with a narrow elongated side wall forming panel 13. A longitudinally aligned series of relatively short creases 14 hingedly connect panel 13 with a sectionalized bottom, bead engaging and can suspending panel, generally designated 15, while a similar series of longitudinally aligned creases 16 similarly hinge panel 15 with a second elongated side wall panel 17. Finally, an elongated glue lap 18 is integrally hinged to panel 17 by means of a longitudinal crease 19 paralleling the creases referred to above.

The bottom, can bead engaging panel 15 is sectioned and subdivided for the purpose of affording transverse end and intermediate panel elements which snugly grip the cylindrical side surfaces of chimed cans C (Figs. 3-6) packaged by the carrier; these have a sustaining relation to the beads B of those cans. The provisions in panel 15 to this end are as follows: A pair of longitudinally extending creases 20, each spaced inwardly from and paralleling one of the side wall defining creases 14, 16, plus a central longitudinal crease 21 paralleling and spaced equi-distant from the creases 20, serve to subdivide panel 15 generally into four longitudinally extending zones. The innermost two of these zones, designated 22, are of equal width and the outermost two, designated 23, are also of equal width but somewhat wider than zones 22. Zones 22 are subdivided transversely at two points equi-distant from one another and from opposite end margins of the blank, by means of relatively short transverse creases 24 whose termini are on creases 20.

The areas between longitudinal side wall defining creases 14, 16 are further subdivided transversely by slitting. Transverse parallel slits 25, whose ends fall at the lines of the respective series of longitudinal creases 14, 16, are intersected by relatively short longitudinal slits 26 coinciding with said crease lines, the termini of creases 26 being mildly rounded inwardly at 27. Forty-five degree inclined, diagonal creases 28 extend inwardly from these rounded slit ends 27, converging to the junction of the two transverse creases 24 with the respective longitudinal creases 20, 20.

The foregoing creasing and slitting provisions outline in panel 15 a series of three sets of flexible hinged, transverse can engaging and locking panels. Each set comprises, on each side of a transverse slit 25, a pair of outer panel elements 29. Each panel 29 is bordered by portions of the 90° intersecting slits 25, 26, by a diagonal crease 28, and by a portion of a longitudinal crease 20. Each panel also comprises a pair of inner rectangular panel elements 30; these are articulated to panel elements 29

by creases 20 and to one another by the central longitudinal crease 21. Elements 30 are outlined by portions of the creases 20, 24, 21 and slits 25.

In completing the carrier, indicated by reference numeral 32, from the blank shown in Fig. 1, adhesive is applied to the glue lap 18, following which, the latter is folded 180° about crease line 19. Panels 12, 13 are then folded 180°, as a unit, about the series of creases 14, and adhesively secured to glue lap 18. This leaves the completed carrier in a relatively flat, knocked down condition, from which it is erected to a rectangular, box-like outline illustrated in Figs. 3-6 by simply applying pressure to the opposite longitudinal side margins thereof, represented by crease 19 and aligned creases 14. Side walls 13, 17 assume 90° relation to the panel 15 and to a top forming member composed of panel 12 and glue lap 18. Fig. 2 illustrates carrier 32 in the inverted, top down position in which it is disposed for insertion of the cans C. To do this the respective sets of transverse, strap-like partition panel elements 29, 30 on opposite sides of each of the transverse slits 25 are manipulated downwardly about the creases 24, 28 which secure the same to triangular web portions 33 at the sides of panel 15. Such manipulation of the panel elements is preferably done by the fingers to deflect the partitions to upstanding position, but it also may be done as an incident of the thrusting of cans C downwardly against the respective panel sets. It has the effects of causing webs 33 to be elevated to upwardly convergent relation (Fig. 3) in which they have the action of side buttresses for the transverse partitions.

As the panel elements 29, 30 swing downwardly, they bow outwardly, in the endwise sense, about subdividing creases 20, 21, assuming an arcuate outline which snugly grips the cylindrical surface of the can. While this happens, the triangular side webs 33 rise to the tapered, strut-like shape mentioned above. It is to be noted by reference to Fig. 1 that the height of elements 29 and 30, or their dimension in the direction of their subdividing creases 20, 21, is greater than the height of side wall panels 13, 17 represented by their transverse dimension in the blank, although roughly of the same order. It is due to this, and to the U-shape of fold creases 24, 28, that webs 33 taper upwardly and inwardly to permit cans C to progress downwardly between the sets of articulated panel elements 29, 30, which automatically conform themselves to the can outline.

As the chime or bead B of the can reaches fully thrust in position it snaps past the free edges of the articulated panel elements 29, 30, whereupon they spring inwardly into snug embracing engagement with the can periphery, and also with their free edges in radially inwardly lapped, latching engagement with the can bead B, as illustrated in Figs. 3, 4 and 6. The proportioning of the parts is such that the free edges of panel elements 29, 30 are spaced from the composite top forming panel 12, 18 of the completed carrier only sufficiently to accommodate the can beads in the latched condition described. Hence when the completed package is inverted to the position illustrated in Fig. 4, and is lifted by grasping the carrier side walls 13, 17, the now upwardly extending edges grip beneath the beads without vertical play and the three cans elevate as a compact, rattle-free unit. The cans are held in close association even prior to this by the gripping of the upper portion of the can just beneath upper bead B and by the upward lift at beads B in side by side engagement with one another. This is assisted by a corresponding, side by side engagement of the beads at the opposite

end of the package, preventing endwise swinging play of the cans.

The weight of the cans, acting downwardly on the upper edges of the outwardly bowed articulated panel elements 29, 30, causes the same to more snugly grip the can periphery underneath the bead, hence the carrier is self-locking in action and the cans will not jiggle loose in transportation. The cans can be removed quite easily from carrier 32 by digital manipulation of the partitions thereof, however the package is primarily intended as a one trip item, and the release of cans C is most expeditiously performed by destroying the carrier, which is of very light gauge stock. A distinct advantage is that a relatively large area of the cans is exposed for viewing of ornamentation or advertising material on their surfaces. The entire upper area of carrier 32 is also ideally adapted for this purpose.

I claim:

1. A portable can package comprising a plurality of cylindrical cans characterized by corresponding radially extending beads adjacent corresponding ends thereof, which cans are arranged in a longitudinal aligned series, and a flexible paperboard carrier for said cans comprising a top forming panel extending longitudinally over and contacting the cans at a beaded end thereof, substantially continuous rectangular side walls of substantial height hingedly connected by longitudinal creases to opposite side margins of said panel, the distance between said side walls equalling the diameter of said cans, and end and intermediate cross strap members integrally hinged by connecting web portions to opposite margins of said side walls, said cross strap members and web portions being confined in a portion of said carrier located between said opposite side wall margins, each of said cross strap members having gripping engagement with the periphery of a can, said strap members having upwardly facing edges engaging in supporting relation with the beads of said respective cans immediately beneath said top forming panel, said upwardly facing edges being spaced beneath said top panel a distance approximating the axial dimension of said beads.

2. A portable can package comprising a plurality of cylindrical cans characterized by corresponding radially extending beads adjacent corresponding ends thereof, which cans are arranged in a longitudinal aligned series, and a flexible paperboard carrier for said cans comprising a panel extending longitudinally over and contacting the cans at a beaded end thereof, substantially continuous rectangular side walls of substantial height hingedly connected by longitudinal creases to opposite side margins of said panel, the distance between said side walls equalling the diameter of said cans, and end and intermediate cross strap members integrally hinged by triangular web portions to opposite margins of said side walls, said cross strap members and triangular web portions being located between said opposite side wall margins, each of said cross strap members being disposed approximately in a vertical plane and having gripping engagement with the periphery of a can, said strap members having vertically facing edges in supporting engagement with the beads of said respective cans, and said vertically facing edges being spaced from said panel a distance approximating the vertical dimension of said beads.

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