

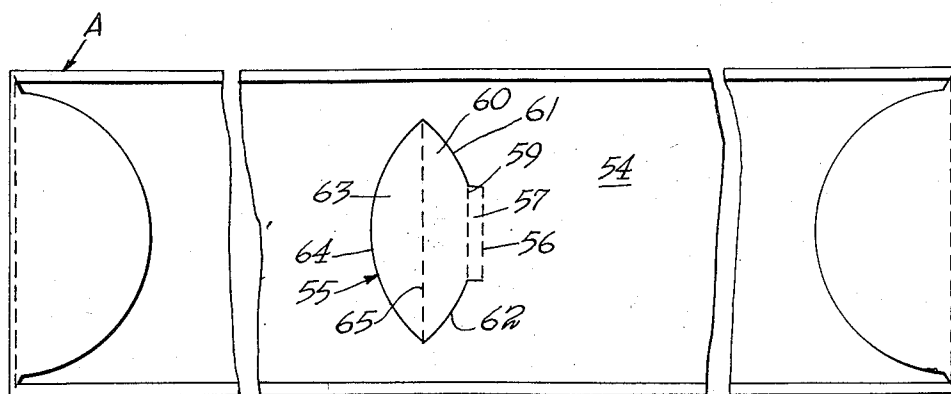
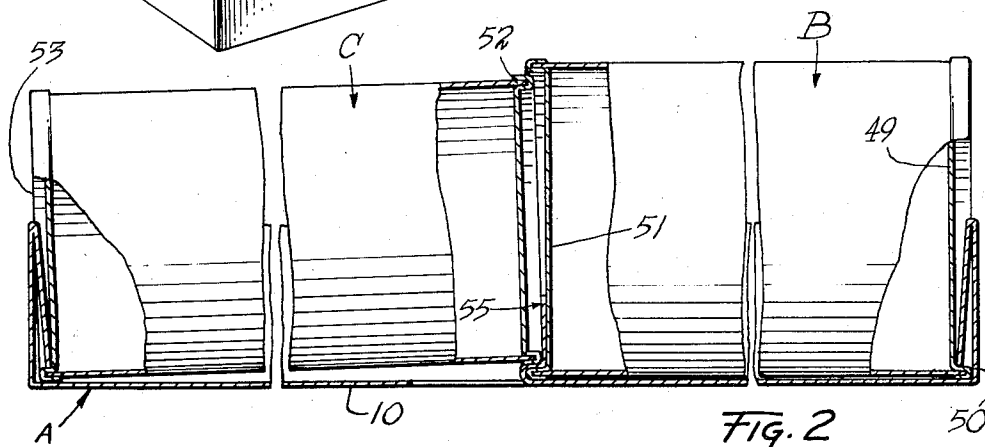
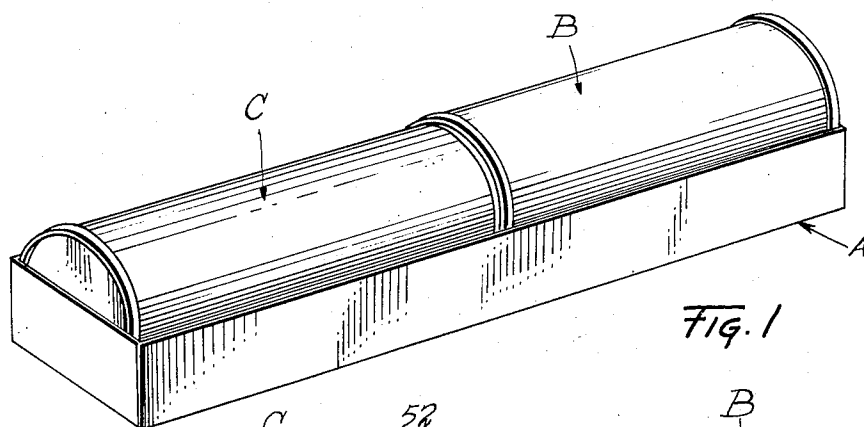
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R. J. HENNESSEY ET AL
CAN CARRIERS

2,912,103

Filed Aug. 26, 1957

2 Sheets-Sheet 1



INVENTOR

Russell J. Hennessey
Robert M. Dunning

BY

Robert M. Dunning
ATTORNEY

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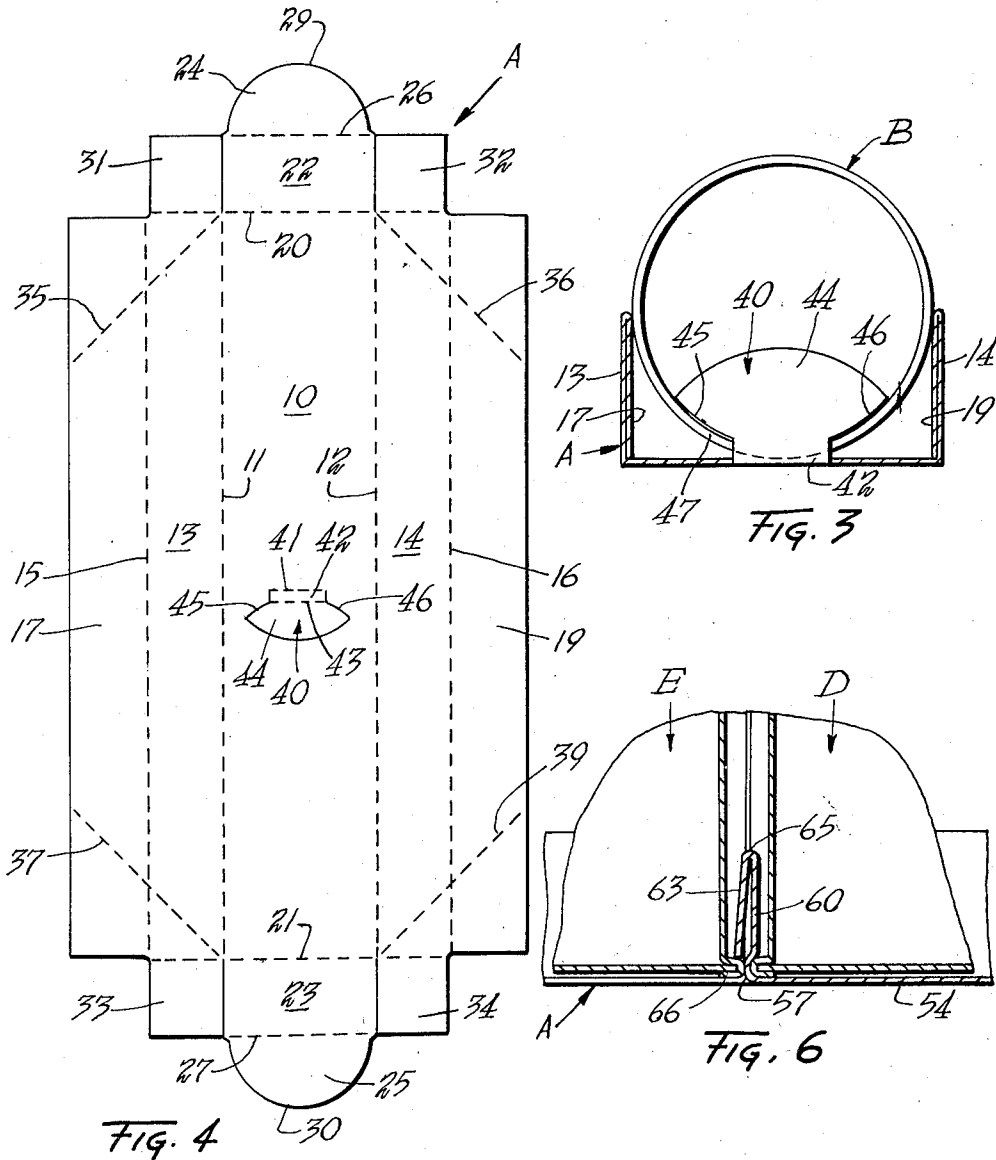
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INVENTOR
Russell J. Hennessey
Robert M. Dunning
BY *Robert M. Dunning*
ATTORNEY

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CAN CARRIERS

Russell J. Hennessey and Robert M. Dunning, St. Paul, Minn., assignors to Waldorf Paper Products Co., Ramsey County, Minn., a corporation of Minnesota

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8 Claims. (Cl. 206-65)

This invention relates to an improvement in can carriers and deals particularly with a carton capable of holding a pair of cans in tandem relationship and in which the cans are of slightly different diameter.

From time to time it has been found desirable to package a pair of cans in a single package so that they will be sold together. Such an arrangement is particularly useful where the producer desires to introduce a new product on the market and as a means of introduction gives a can of the new product to a customer purchasing an older or better known product. In many instances the two cans are not exactly of the same height nor are they of the same diameter. As a result, they are often difficult to support in a package in side-by-side relation and to properly hold both of the cans in the package. The present invention was accordingly devised to hold two such cans in tandem arrangement and in the construction disclosed, the cans may be of materially different length and may also be of somewhat different diameter without destroying the effectiveness with which the cans are held.

A feature of the present invention resides in the provision of a package containing a pair of cans, one of which is slightly smaller in diameter than the other so that an end of the smaller can can fit within the chime of the larger can and be held in substantially axially aligned relation therewith. The outer or remote ends of the can are held engaged in the carton or tray by means of tabs which enter the chimed ends of the cans to hold these ends from removal. In order to hold the adjoining ends of the cans firmly engaged in the tray, a tab is cut from the tray bottom which extends over the chime of the can of larger diameter and is clamped between the can when the two cans are in place in the tray. This tab is so constructed as to lock the adjoining ends of the two cans in place, thus forming an effective anchor for the cans.

A feature of the present invention resides in the provision of a tab cut from the bottom panel of a can containing tray and engageable between the adjoining can ends. This tab is provided with arcuate edges designed to engage against the inner surface of the chime of the larger diameter can to hold this larger can against the bottom of the tray. The tab is held in engaging position by the end of the smaller diameter can which preferably telescopes slightly into the recessed end of the larger can and serves the double purpose of holding the tab in can engaging position and holding the end of the smaller can engaged within the end of the larger one.

These and other objects and novel features of the present invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a perspective view of a tray showing a pair of cans engaged therein.

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Figure 2 is a longitudinal section through the tray and cans showing the manner in which the cans are held engaged within the tray.

Figure 3 is a cross sectional view through the tray showing the larger can in place therein and the tab anchoring this larger can in place, the smaller can being omitted from this view.

Figure 4 is a diagrammatic view of the blank from which the tray is formed.

Figure 5 is a diagrammatic view of a portion of a modified construction of can tray.

Figure 6 is a sectional view through a portion of the modified form of construction shown in Figure 5.

The can containing tray is indicated in general by the letter A and in general comprises a generally rectangular open topped tray section of sufficient length to hold a pair of cans in end-to-end relation. In the particular arrangement illustrated, the tray A includes a bottom panel 10 which is foldably connected along parallel fold lines 11 and 12 to side wall panels 13 and 14 respectively. The panels 13 and 14 are connected along parallel fold lines 15 and 16 to lining flanges 17 and 19 respectively. In the preferred form of construction, these lining flanges 17 and 19 are free of adhesive contact with the walls 13 and 14 which they line and these flanges act to fold inwardly to some extent when permitted to do so to somewhat fill the space between the smaller diameter can and the side wall panels of the tray.

The ends of the bottom panel 10 are connected along parallel fold lines 20 and 21 to end wall panels 22 and 23 respectively. Flaps or tabs 24 and 25 are hingedly connected to the upper ends of the end panels 22 and 23 along parallel fold lines 26 and 27. These tabs 24 and 25 are provided with arcuate edges 29 and 30 respectively which are shaped to fit within the chimed ends of the cans B and C which held contained by the tray A.

In view of the fact that the can C is preferably of smaller diameter than the can B, the tab 25 has its arcuate edge 30 of shorter radius than the arcuate edge 29 of the tab 24. Thus the tab 25 assists in holding the can C centrally located between the side walls of the tray even though the distance between these side walls is somewhat greater than the diameter of the can C.

Corner flaps 31 and 32 are hingedly connected to one end of the side walls 13 and 14 along continuation of the fold line 20 and similar corner flaps 33 and 34 are hingedly connected to the other ends of the side walls 13 and 14 by continuations of the fold line 21. Also, in the particular arrangement illustrated, diagonal fold lines 35 and 36 extend diagonally across the wall panel and liner flanges so that the tray can be folded in a flat condition and glued in this arrangement. The diagonal fold line 35 extends across the panel 13 and flange 17 from the fold lines 11 and 20 while the fold line 36 extends across the panel 14 and flange 19 from the juncture of the fold lines 12 and 20. The diagonal fold line 37 extends across the panel 13 and flange 17 from the juncture between the fold lines 11 and 21 while the fold line 39 extends diagonally across the panel 14 and flange 19 from the juncture between the fold lines 12 and 21. This permits the triangular areas outwardly of the diagonal fold lines to be folded so that the corner flaps overlies portions of the bottom panel 10 so that the end panels 22 and 23 may be adhered thereto.

In order to hold the telescope ends of the two cans near the tray bottom, a tab 40 is cut from the carton stock forming the tray bottom and remains connected thereto by a fold line 41 which is spaced from the end wall 22 a distance substantially equal to the length of the larger diameter can. The tab 40 includes a short

strap portion 42 between the fold line 41 and a parallel fold line 43. This strap portion 42 is designed to extend over the chime of the larger diameter can so that the remainder of the tab may rest in surface contact with the recessed ends. The tab 40 also includes a wider tab end 44 which is defined by arcuate cuts 45 and 46 on opposite sides of the strap portion 42, the radius of arcuation being similar to the radius of the inner wall of the chimed can end. Accordingly the arcuate edges 45 and 46 of the enlarged tab end 44 may engage against the inner surface of the chime 47 of the can B in the manner best illustrated in Figure 3 of the drawings.

In the operation of the can tray, the tray is first opened up and the tab 24 is folded down to overlie the inner surface of the end wall 22 and the inner surfaces of the corner flaps 31 and 32 attached thereto. The can B is then inserted into the tray so that the flap 24 engages against the recessed end 49 of the can B and inwardly of the chime 50 thereof.

The tab 40 is next folded upwardly adjacent to the opposite recessed end 51, and the tab 25 at the opposite end of the tray is folded downwardly to lie inwardly of the end panel 23 and the corner flaps 33 and 34 adhered thereto. The can C is then inserted so that the chime 52 partially engages within the chime 47 of the can B. The chime 53 of the can C at the outer end thereof is then forced down inwardly of the flap 25 so that this flap 25 engages within the chime 53. As this action takes place, the enlarged portion 44 of the tab 40 is pressed against the recessed end 51 of the can B and the arcuate ends 45 and 46 of this tab engage against the can chime 47 to hold the can against the bottom panel 10. Thus the tab 40 holds the can B in place, and the chime 47 of the can B holds the adjoining end of the can C in proper position and the two cans are firmly anchored in the tray.

Obviously, the relative lengths of the two cans may be widely varied, it being only necessary to make the tray of proper length to contain the two cans when in telescope relation and placing the tab 40 at the proper distance to engage in the end of the large diameter can. The tray has operated successfully with cans of the same diameter with the arrangement described as the tab tends to twist sufficiently to engage portions of both cans. However, if two cans of the same diameter are to be used, the construction disclosed in Figure 5 is somewhat preferred.

Figure 5 of the drawings discloses a somewhat modified form of tray which may be constructed in the manner disclosed in Figure 4 and is shown as having a bottom panel 54 which corresponds to the bottom panel 10 of the previous tray. A tab structure 55 is cut from the bottom panel 54 and remains connected thereto along a fold line 56 which corresponds to the fold line 41. The fold line 56 is connected to a strap foot which is designed to extend over the chime of a can and a strap portion 57 is connected along a fold line 59 to a tab 60 having arcuate edged portions 61 and 62. The arcuate edged portions are designed to engage inwardly of the chime of one can such as the can D shown in Figure 6. The tab structure 55 also includes a folded tab 63 having an arcuate edge 64 which is connected to the tab portion 60 by a fold line 65. The arcuate edge 64 of the tab 63 is designed to engage within the chime 66 of a second can such as the can E in Figure 6. As a result, both cans are engaged in the tray by the single tab structure 50 even though the cans D and E are both of the same diameter.

In accordance with the patent statutes the principles of construction and operation of the present invention have been described, and while an endeavor has been made to set forth the best embodiments thereof, it should be understood that obvious changes may be made within the scope of the following claims without departing from the spirit of the invention.

What is claimed is:

1. A tandem can carton including a tray, said tray being elongated and including a pair of cans in end-to-end relation, means on the ends of said tray engaging the ends of the cans to hold said ends of said cans against the bottom of said tray, and a tab extending upwardly from the bottom of said tray between the adjoining ends of said cans and interlocking with said adjoining ends for anchoring said adjoining ends against the bottom of the tray.

2. The structure described in claim 1 and including means on said tab extending into the chimed end and engaging against the chime of at least one of said cans.

3. A can carrier including a panel of paperboard, a pair of cans supported in tandem arrangement upon said panel, means on said panel engageable with the outermost ends of said cans to hold said outermost ends against said panel, a tab cut from the body of said panel and extending between the adjacent substantially abutting ends of said cans, and means on said tab extending into the chimed end of at least one of said cans and engaging the inner surface of the chime for holding the same against said panel.

4. A tandem can carton including a tray, said tray being elongated and including a pair of cans in end to end relation, means on the ends of said tray engaging the ends of the cans to hold said ends of said cans against the bottom of said tray, and a tab extending upwardly from the bottom of said tray between the adjoining ends of said cans and anchoring said adjoining ends against the bottom of the tray, said tab including means engageable into the chimed ends of both of the cans to hold the abutting ends of the cans against the tray bottom.

5. A tandem can carton including a tray, said tray being elongated and including a pair of cans in end to end relation, means on the ends of said tray engaging the ends of the cans to hold said ends of said cans against the bottom of said tray, and a tab extending upwardly from the bottom of said tray between the adjoining ends of said cans and anchoring said adjoining ends against the bottom of the tray, and means on said tab engageable inwardly of the chimed end of one of said cans and in which the other of said cans telescopes into the chimed end of said one can.

6. A can carrier including a panel of paperboard, a pair of cans supported in tandem arrangement upon said panel, means on said panel engageable with the outermost ends of said cans to hold said outermost ends against said panel, a tab cut from the body of said panel and extending between the adjacent substantially abutting ends of said cans, and means on said tab engageable inwardly of the chimed end of at least one of said cans for holding the same against said panel, said tab including means engageable within the chimed ends of both of said cans at the substantially abutting ends thereof.

7. A can carrier including a panel of paperboard, a pair of cans supported in tandem arrangement upon said panel, means on said panel engageable with the outermost ends of said cans to hold said outermost ends against said panel, a tab cut from the body of said panel and extending between the adjacent substantially abutting ends of said cans, and means on said tab engageable inwardly of the chimed end of at least one of said cans for holding the same against said panel, said tab including means engageable within the chimed end of one of said cans, and flap means hingedly connected to said tab and engageable inwardly of the chimed end of the other of said cans at the substantially abutting ends thereof.

8. A can carrier including a panel of paperboard, a pair of cans supported in tandem arrangement upon said panel, means on said panel engageable with the outermost ends of said cans to hold said outermost ends against said panel, a tab cut from the body of said panel and ex-

tending between the adjacent substantially abutting ends of said cans, and means on said tab engageable inwardly of the chimed end of at least one of said cans for holding the same against said panel, said tab including means engageable inwardly of the chimed end of one of said cans, the other of said cans telescoping partially into said

chimed end of said one can to hold said means on said tab engaged.

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