Aug. 14, 1962 R. J. HENNESSEY 3,049,278

CAN CONTAINING CARTON

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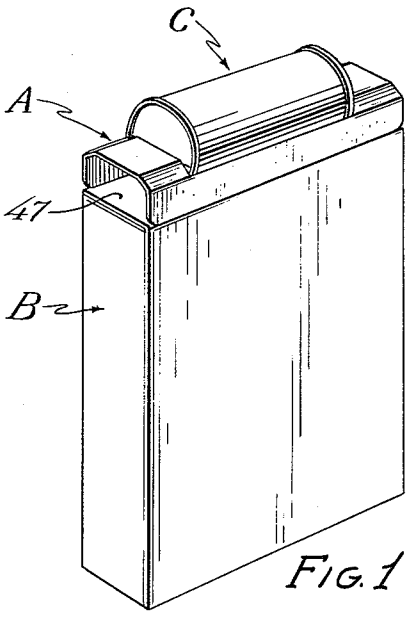


FIG. 1

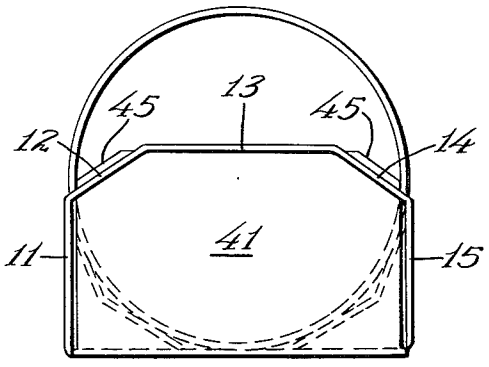


FIG. 2

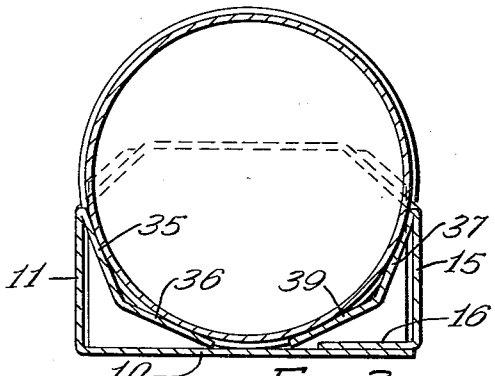


FIG. 3

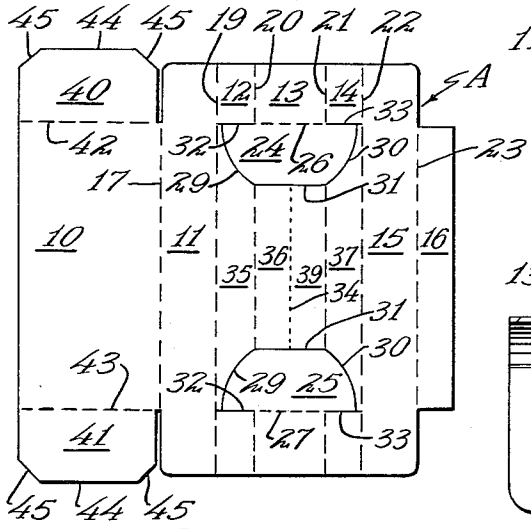


FIG. 5

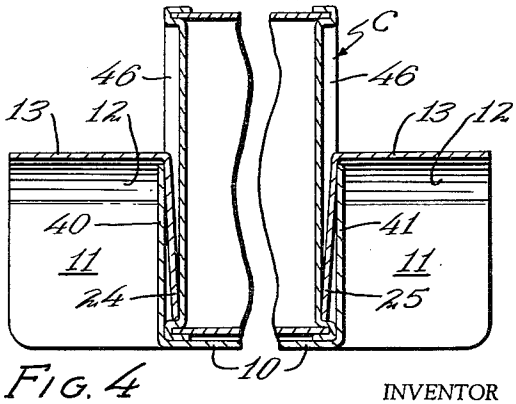


FIG. 4

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CAN CONTAINING CARTON
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This invention relates to an improvement in can containing cartons and deals particularly with a carton designed to contain a can of a product and which may be adhered or otherwise secured to a paperboard carton usually containing a different product.

During recent years many combination sales have been held to sell two products as a unit. In other words, in introducing a new product, it has been common practice to sell or to give away a sample of one product with the sale of the other. For example, from time to time certain types of washing powders or detergents have been sold in combination with a can of scouring powder or the like. When such combination sales are made, it is usual practice to attempt to provide some means of attaching the products together. When one product is contained within a paperboard carton and the other is contained within a can, some difficulty has been experienced in combining the two types of packages.

An object of the present invention resides in the provision of a simple paperboard tray designed to accommodate a can and to secure the can against the base of the tray. The tray is provided with a flat bottom panel which can be adhered in face contact with the top closure of the package. As a result, the two products are readily combined and may be handled and sold as a unit.

A feature of the present invention resides in the provision of a device of the type described which is extremely inexpensive to produce and which can be made on readily available equipment. Trays of the same general type have been previously employed, but these trays have been rather complicated and costly to set up. In the present case, the tray comprises merely a sleeve glued in tubular form and having an opening formed by cutting flaps from the upper surface of the tube. These flaps are folded down into the tray to serve as reinforcements and the can is held in place between two opposed of the flaps, these two flaps engaging the recessed ends of the can and engaging the can to hold the can in place. While the tubular sleeve is normally flat and is shipped and stored in flat form, once the sleeve has been opened up and the can inserted, the can acts to hold the sleeve in erected form.

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 paperboard container having a sleeve or tray adhered to one end thereof and disclosing a can supported in the sleeve.

FIGURE 2 is an end elevational view of the can supporting sleeve illustrated in FIGURE 1.

FIGURE 3 is a transverse sectional view through the can and through the sleeve supported therein.

FIGURE 4 is a longitudinal sectional view of the tray, a portion of the center portion of the tray and can being broken away.

FIGURE 5 is a diagrammatic view of the blank from which the tray is formed.

The tray is illustrated in general by the letter A and is normally adhered to the surface of a paperboard container indicated in general by the letter B. The tray A is designed to contain a can C of conventional form and of predetermined dimensions.

The tray A includes a bottom panel 10, a side wall panel 11, a diagonal panel 12, a top panel 13, a diagonal panel 14, a side wall panel 15, and a glue flap 16. These panels are connected by parallel fold lines 17, 19, 20, 21, 22, and 23. The sleeve or tray may be glued in tubular form in any suitable manner.

A pair of flaps 24 and 25 which are designed to extend into the recessed ends of the can C are cut from portions of the top panel 13 and the adjoining diagonal panels 12 and 14. These flaps 24 and 25 are foldably connected to the top panel 13 along parallel fold lines 26 and 27. The flaps may be of substantially semi-circular form if desired but in the arrangement illustrated the edges of the flaps are formed by arcuate cut lines 29 in the diagonal panel 12 and extending from an extension of the fold lines 26 and 27 to the fold line 20; arcuate cut lines 30 in the diagonal panel 14 extending from an extension of the respective fold lines 26 and 27 to the fold line 21, and parallel cut lines 31 extending across the top panel 13 from the fold line 20 to the fold line 21. Cut lines 32 extend across the diagonal panel 12 in alignment with the fold lines 26 and 27, connecting an end of the arcuate cut line 29 and the fold line 20. Similar cut lines 33 extend across the diagonal panel 14 in alignment with the respective fold lines 26 and 27 and connect the ends of the cut line 30 and the fold line 21.

A cut line or a perforated line 34 extends through the center portion of the top panel 13 midway between the fold lines 20 and 21. As a result, the center portion 35 of the diagonal panel 12 between the cut lines 32 and the center portion 36 of the top panel 13 which is between the cut lines 31 may be folded downwardly beneath the can C, these parts folding along fold line 19. Similarly, the center portion 37 of the diagonal panel 14 and the center portion 39 of the top panel 13 which is between the cut lines forming the tabs 24 and 25 may likewise be folded down along the fold line 22 to extend beneath the can C.

In the operation of placing the can C in the sleeve or tray A, the sleeve is opened up into tubular form. End flaps 40 and 41 are foldably connected to the ends of the bottom panel 10 along parallel fold lines 42 and 43 which are substantially aligned with the fold lines 26 and 27. These flaps 40 and 41 are folded upwardly so that the free ends 44 of the flaps 40 and 41 extend beneath the top panel 13 adjoining the fold lines 26 and 27. The diagonal corners 45 of the flaps 40 and 41 are properly proportioned so as to engage inwardly of the cut lines 32 and 33 in the diagonal panels 12 and 14, the end flaps and the diagonal panels distorting to some extent during this operation. The can C may then be forced downwardly between the fold lines 26 and 27, folding the flaps 24 and 25 downwardly until these flaps engage into the recessed ends 46 of the can C, as indicated in FIGURE 4 of the drawings. During this operation, the center portions 35, 36, 37 and 39 of the diagonal panels 12 and 14 and the top panel 13 are folded downwardly beneath the can along the fold lines 19 and 22, as indicated in FIGURE 3 of the drawings. Thus the can is firmly secured in the sleeve by the tabs 24 and 25.

In normal procedure, the assembled sleeve A and can C are attached to the surface or top closure 47 of the rectangular carton B by passing the assembly over a suitable glue wheel and placing the assembly on the top of the carton so it will be securely adhered thereto. Obviously, however, the panel 10 can be attached to the container prior to the insertion of the can.

I claim:

1. A can sleeve including a bottom panel, side wall panels extending upwardly from two opposed side edges of said bottom panel, a pair of spaced top panels connecting the upper edges of said side wall panels at op-

posite ends thereof to provide a can receiving recess therebetween, and flaps hingedly connected to the inner opposed edges of said top panels and adapted to extend into the recessed ends of a can in said recess, said flaps in folded position terminating in closely spaced relation to said bottom panel and adapted to accommodate the chime of the can therebetween.

2. A can sleeve including a tubular sleeve including a bottom panel, side wall panels extending upwardly from two opposite edges of said bottom panel, diagonal panels connected to the upper edges of said side wall panels adjoining the ends thereof, top panels hingedly connecting the upper edges of said diagonal panels, said top panels being spaced to provide can receiving recesses therebetween, can retaining flaps hingedly connected to the inner opposed edges of said top panels along parallel fold lines, said flaps being foldable downwardly toward said bottom panel and being adapted to extend into the recessed ends of a can in said can recess, said flaps in folded position terminating in closely spaced relation to said bottom panel and adapted to accommodate the chime of the can therebetween.

3. A can sleeve including a bottom panel, side wall panels extending upwardly from two opposed side edges of said bottom panel, a pair of spaced top panels connecting the upper edges of said side wall panels at opposite ends thereof to provide a can receiving recess therebetween, panels foldably connected to the upper edges of said side walls between said top panels and adapted to fold beneath a can in said recess.

4. A can sleeve including a bottom panel, side wall panels extending upwardly from two opposed side edges of said bottom panel, a pair of spaced top panels connecting the upper edges of said side wall panels at opposite ends thereof to provide a can receiving recess therebetween, and flaps hinged to said bottom panel along parallel fold lines spaced from the ends of said bottom panel and foldable upwardly into engagement with said top panels.

5. A can sleeve including a tubular sleeve including a bottom panel, side wall panels extending upwardly from two opposite edges of said bottom panel, diagonal panels connected to the upper edges of said side wall panels adjoining the ends thereof, top panels hingedly connecting the upper edges of said diagonal panels, said top panels being spaced to provide can receiving recesses therebetween, can retaining flaps hingedly connected to the inner opposed edges of said top panels along parallel fold lines, said flaps being foldable downwardly toward said bottom panel and being adapted to extend into the recessed ends of a can in said can recess, panel portions foldably connected to the upper edges of said side walls between said diagonal panels at opposite ends of said side walls, said panel portions being foldable downwardly and adapted to extend beneath a can in said recess.

6. A can sleeve including a tubular sleeve including a bottom panel, side wall panels extending upwardly from two opposite edges of said bottom panel, diagonal panels connected to the upper edges of said side wall panels adjoining the ends thereof, top panels hingedly connecting the upper edges of said diagonal panels, said top panels being spaced to provide can receiving recesses therebetween, can retaining flaps hingedly connected to the inner opposed edges of said top panels along parallel fold lines, said flaps being foldable downwardly toward said bottom panel and being adapted to extend into the recessed ends of a can in said can recess, and flaps hingedly connected to the ends of said bottom panel and foldable upwardly into engagement with said top panels to hold said panels in tubular relation.

7. A can sleeve including a tubular sleeve including a bottom panel, side wall panels extending upwardly from two opposite edges of said bottom panel, diagonal panels connected to the upper edges of said side wall panels adjoining the ends thereof, top panels hingedly connecting the upper edges of said diagonal panels, said top panels being spaced to provide can receiving recesses therebetween, can retaining flaps hingedly connected to the inner opposed edges of said top panels along parallel fold lines, said flaps being foldable downwardly toward said bottom panels and being adapted to extend into the recessed ends of a can in said can recess, said bottom panel terminating short of the ends of the remaining panels and including flaps hingedly connected to the ends of said bottom panel and foldable upwardly into engagement with said top panels to hold said panels in tubular relation.

8. A can sleeve including a tubular sleeve including a bottom panel, side wall panels extending upwardly from two opposite edges of said bottom panel, diagonal panels connected to the upper edges of said side wall panels adjoining the ends therof, top panels hingedly connecting the upper edges of said diagonal panels, said top panels being spaced to provide can receiving recesses therebetween, can retaining flaps hingedly connected to the inner opposed edges of said top panels along parallel fold lines, said flaps being foldable downwardly toward said bottom panel and being adapted to extend into the recessed ends of a can in said can recess, said bottom panel terminating short of the ends of the remaining panels and including flaps hingedly connected to the ends of said bottom panel and foldable upwardly into engagement with said top panels, portions of said flaps extending beyond the inner edges of said diagonal panels when in upwardly folded position.

References Cited in the file of this patent

UNITED STATES PATENTS

2,663,413	Foster	Dec. 22, 1953
2,775,390	Vines	Dec. 25, 1956
2,823,797	Amatel	Feb. 18, 1958
2,845,758	Lowthian	Aug. 5, 1958
2,946,436	Williamson	July 26, 1960