COVER FOR BASKET-TYPE CONTAINER AND COMBINATION THEREOF

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ABSTRACT

A cover for use with a marketing container of the basket-type for holding perishable agricultural products. The cover includes a bottom wall joined to four side walls. The side walls incline and diverge toward the bottom open end of the cover for seating over the upper end portion of the container. Means are provided on the cover to form a cooperative locking engagement with the container, and the cover is formed of a relatively rigid material permitting some flexing of the side walls so that the locking means may be readily engaged with, and disengaged from, the container. In one embodiment the locking means comprises inwardly projecting indentations formed in the cover side walls for overlapping engagement with the container rim. In another embodiment the locking means includes vertical indentations in the side walls formed with horizontal slots positioned above inclined surfaces. In another embodiment the locking means includes slots or openings formed in the four corners of the cover together with inwardly projecting locking lips integral with a peripheral rim on the cover. In another embodiment the locking means includes T-shaped slots formed in the four corners of the cover.

21 Claims, 12 Drawing Figures
COVER FOR BASKET-TYPE CONTAINER AND COMBINATION THEREOF

BACKGROUND OF THE INVENTION

This invention relates in general to marketing containers, and in particular relates to marketing containers for use in retail outlets such as grocery stores or supermarkets for displaying and vending perishable agricultural products.

Retail food stores such as grocery stores and supermarkets commonly display and vend perishable agricultural products such as strawberries, raspberries, cherry tomatoes, cherries, and other similar species of fresh produce in basket-type marketing containers of a size on the order of one dry pint. Conventional containers of this type include baskets molded of either synthetic plastic or pressed paper pulp material. The baskets are filled with the products, for example strawberries, and then placed in the display area for selection by the customer. Marketing techniques of the described nature present a number of problems. Because the product is exposed and may be easily bruised or injured, the baskets cannot be stacked in layers at the display area, thus increasing the display area required for a given number of baskets. Also this marketing procedure is objectionable from a sanitary standpoint because the products are exposed to dust and insects at the display area, and customers will often handle the exposed product. Furthermore, the product can be accidently spilled from the baskets by either the customer in making his selection, or by the clerk at the check-out counter, with the result that the product litters the floor and is lost to the retailer. Accordingly, the need has been recognized for a relatively inexpensive and simplified arrangement for use with marketing containers of the type described in a manner which easily and securely covers and uncovers the containers, is attractive and allows visual inspection of the product by the customer, keeps the product under sanitary conditions, protects it from injury and spillage, and permits stacking of filled containers at the display area.

OBJECTS AND SUMMARY OF THE INVENTION

It is the general object of the invention to provide a new and improved cover for use with a basket-type marketing container and combination thereof specially adapted for holding perishable agricultural products and the like.

Another object is to provide a cover of the type described which is of inexpensive, unitary construction and which is adapted for rapid and simplified attachment and detachment to and from the container.

Another object is to provide a cover of the type described which releasably and securely engages with a rim on the container in a manner preventing unintended removal or spillage of the product and which permits a fully loaded container to be lifted by gripping only the cover.

Another object is to provide a cover of the type described which may be fabricated from a relatively transparent material such as a synthetic plastic affording an attractive display of the product for visual inspection by the customer, which sanitarily protects the product from deleterious substances and injury, and precludes objectionable handling of the product by the customer at the display area.

Another object is to provide a cover of the type described which is fabricated of a material having sufficiently rigidity and strength to permit stacking of filled containers at the display area.

The foregoing and additional objects and features of the invention are provided by means of a cover of unitary molded construction used in combination with a basket-type marketing container for holding perishable agricultural products for display and vending at a retail store or supermarket. The container is formed with a bottom wall joined with four side walls with a rim extending about the upper portion of the side wall. The cover is formed with a top wall and four side walls which are joined to form four corner portions. The cover side walls are inclined and diverge toward the bottom open end of the cover. The lower portion of the cover is adapted to seat over the upper end portion of the container and means are provided to form a cooperative locking engagement to secure the cover to the container. The cover is formed of a relatively rigid material permitting some flexing of the walls to permit the locking means to be easily engaged with, and disengaged from, the container. In one embodiment the locking means includes vertical indentations formed in the cover side walls with horizontal slots formed in the indentations for engagement in the container rim. In another embodiment the locking means include slots or openings formed in the corner portions of the cover together with inwardly projecting lips on the peripheral flange of the cover. In another embodiment the locking means includes slots formed in the corner portions of the cover in a “T” configuration. In certain of the embodiments inwardly projecting indentations are formed in the cover side walls for locking engagement with the rim of an alternate container.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of a cover incorporating the present invention;

FIG. 2 is a top plan view of the cover shown in FIG. 1 fitted over and interlocked with a basket-type marketing container;

FIG. 3 is a cross sectional view taken along the line 3 — 3 of FIG. 2;

FIG. 4 is an isometric view of a cover incorporating another embodiment of the present invention;

FIG. 5 is a top plan view of the cover shown in FIG. 4 fitted over and in interlocking engagement with a basket type marketing container;

FIG. 6 is a cross sectional view taken along the line of 6 — 6 of FIG. 5;

FIG. 7 is a top plan view of the cover shown in FIG. 4 shown fitted over and in interlocking engagement with a different type of container;

FIG. 8 is a cross sectional view taken along the line 8 — 8 of FIG. 7;

FIG. 9 is a cross sectional view taken along the line 9 — 9 of FIG. 7;

FIG. 10 is an isometric view of a cover incorporating still another embodiment of the present invention;

FIG. 11 is a top plan view of the cover of FIG. 10 shown fitted over and interlocking engagement with containers of various sizes, portions of which are shown in broken lines.

FIG. 12 is a cross sectional view taken along line 12 — 12 of FIG. 11.
A cover 20 incorporating the present invention is shown in FIGS. 1-3. It is adapted for use with a conventional basket-type marketing container 22. The container 22 is molded from a suitable synthetic plastic material and is provided with a bottom planar wall 24 and four upwardly extending, outwardly inclined, integral planar side walls 26 of a relatively thin but substantially rigid lattice type construction. The container 22 is also provided with an outwardly extending peripheral reinforcing rim 28 adjoining the upper extremities of the side walls 26. The container 22 as shown has a generally box-like configuration and is open at the top side.

Container 28 is of a suitable size on the order of one dry pint for holding the desired quantity of the product, i.e., a perishable agricultural product such as strawberries, raspberries, cherry tomatoes, or cherries and the like.

Cover 20 consists of a planar, generally rectangular top wall 30 and four downwardly extending, outwardly inclined planar side walls 32 adjoining and formed integral with the top wall 30. The cover also has a generally box-like configuration and is open at the bottom side. The cover 22 is provided with an outwardly extending peripheral reinforcing flange 34 adjoining lower extremities of the side walls 32. The four side walls 32 are joined to form four slightly rounded corner portions 32a. The side walls 32 and the corner portions 32a are inclined outwardly toward the bottom open end of the cover at an angle ranging from 95° to 135° with respect to the top wall 30 and, in any event, an angle greater than 90° relative to the top wall 30. Preferably, the angle should be approximately 100°. The lower portion of the cover 22 is sized so that it is slightly larger than the upper end portion of the container 22 over which it is to seat.

Cooperative locking means is provided for causing interlocking engagement between the cover 20 and the container 22. This cooperative locking means includes locking means 36 provided on the cover 22. This locking means includes vertically extending indentations 38 formed at the mid-portion of each of the side walls 32 so that indentations project inwardly of the adjacent portion of the container rim. The indentations consist of side walls 38a, 38b formed with a U-shaped in cross section and converging in an upward direction. The lowermost portion of each indentation 38 is formed with an upwardly and inwardly inclined surface 40 comprising the apex of the side walls of each indentation. Horizontal slots 42 are formed in each indentation above the surfaces 40, and the slots have a sufficient vertical width to accept an adjacent portion of the container rim 28.

Cover 20 is fabricated from a suitable material providing the properties of sufficient rigidity and strength to afford a secure lock with the container and bear the weight of stacked containers at the display area, and yet permit some flexing of the cover side walls to facilitate operation of the locking means for convenient and rapid engagement with, and disengagement from, the container. Additionally, the material of the cover should be substantially transparent for an attractive display of the product and visual inspection by the customer. The material preferably should be adaptable for inexpensive fabrication into a one-piece cover by standard molding techniques such as vacuum molding or the like. A synthetic polymer such as polystyrene is preferred in that, in addition to the foregoing properties, the walls of the cover when formed with a thickness on the order of 10 mil are semi-permeable, i.e., air can permeate the plastic to preclude the formation of water condensation on the inside surface of the cover. With the cover top wall spaced above the upper layer of the product, an air space is formed which protects the product from degradation while in the display area. Other synthetic polymers such as polyvinylchloride (PVC) are also suitable for use in forming the cover.

The use and functioning of the cover 20 on a typical container 22 is as follows.

With the container 22 filled with the desired product, the cover 20 is secured in place by first seating the cover open end over the upper end portion of the container and then pushing the cover downwardly. The surfaces 40 of the cover indentations move against the container rim 28 in a camming action so that the cover side walls flex outwardly sufficient to permit the slot 42 to move into alignment with the container rim, after which the side walls return inwardly by the action of plastic memory so that the container rim is seated in the four slots 42. The cover is now in locking engagement with the container for merchandising of the product to the customer. The cover may be easily disengaged from the container for removing the product by manually distorting the cover side walls and/or container side walls sufficient to displace the slots 42 with respect to the container rim. The cover thus may be removed without breaking or otherwise damaging the cover or container permitting the cover to be subsequently reused by again snapping it onto the container in the manner described, such as where the customer desires to store a portion of the product in the container.

FIGS. 4-9 illustrate an embodiment of the invention providing a cover 44 adapting for selective use with marketing containers of varied construction. FIGS. 5 and 6 illustrate the cover 44 in use with a basket-type marketing container 46 similar to the container 22 described in relation to the embodiment of FIGS. 1-3. FIGS. 7-9 illustrate the cover 44 for use with a box-type container 48 formed of pressed pulp material and especially characterized in having an outwardly projecting reinforcing rim 50 of a relatively longer vertical dimension as compared to the rim 52 of plastic container 46.

Cover 44 consists of a planar, generally rectangular top wall 54 and four integral side walls 56. The side walls are inclined and diverged toward the bottom open end of the cover with each side wall extending at an angle ranging from 95° to 135° with respect to top wall 54, and in any event greater than 90° to the top wall. Preferably, the angle should be approximately 100°. The lower, open end of the cover is dimensioned to seat over the upper end portions of each of the containers 46 and 48. The cover is fabricated from a suitable material, preferably a synthetic polymer such as polystyrene, which will provide the properties described in relation to the embodiment to FIG. 1, namely, suitable rigidity and strength, but permitting some flexing of the walls, transparency, adaptability for inexpensive manufacturing by known molding techniques and the permeability of air as in the case of polystyrene material.
Cooperative locking means is provided for causing interlocking engagement between the cover 44 and the plastic container 46. This cooperative locking means includes locking means 57 comprising four horizontally elongate, inwardly extending indentations 58 formed at the mid-portions of the cover side walls. The indentations 58 project inwardly from the side walls a dimension sufficient to overlap with an adjacent portion of the rim of plastic container 46, as best illustrated in FIG. 6. The walls 58a of the indentations are substantially U-shaped in vertical cross section so that the action of pressing the cover downwardly onto the container causes the rim 52 to bear against the indentations and flex the cover side walls outwardly. After the rim clears the indentations, the side walls are returned by the action of plastic memory so that the indentations move under and in locking engagement with the rim. The cover is easily removed by manually distorting the cover and/or container side walls until the indentations move out of engagement with the container rim.

The cooperative locking means for cover 44 further includes locking means 59 comprising a plurality of slots 60 formed in respective corners of the cover side walls. Each slot 60 defines a triangular shaped opening formed with lateral upwardly converging side edges 62 for accepting the adjacent corner portion of reinforcing rim 50 on pulp container 38, as best illustrated in FIG. 9. A plurality of inwardly projecting locking lips 64 are formed at the four corner portions of the cover integral and in co-planar relationship with a peripheral reinforcing flange 66 provided at the open end of the cover. The locking lips 64 are dimensioned to extend into overlapping relationship with the adjacent corners of container rim 50 when the cover is seated on the container. As illustrated in FIG. 9, the vertical dimension between the indentations 58 and lips 64 correspond to the vertical width of container rim 50 so that the four indentations serve to bear against and position the top of rim 50 with the lips 64 in locking engagement underneath the lowermost portion of the rim.

The use and functioning of the cover 44 with a typical pulp container is as follows. With pulp container 48 filled with the desired product, the cover 44 is secured in place by seating its open end over container rim 50. A manual flexing of the side walls and locking lips of the cover, together with a slight twisting of the cover relative to the container, is effective to bring the lips into locking engagement underneath the rim with the indentations 58 bearing against the top of the rim. The cover is easily released through a slight manual distortion of the cover side walls until the locking lips clear the container rim. It is to be noted that release of the cover is accomplished without injury to the cover so that it can be reused by the customer.

FIGS. 10 - 12 illustrate a cover 66 providing another embodiment of the invention adapted for selective use with marketing containers of varied size. FIGS. 11 and 12 illustrate the cover 66 in use, as one example, with a container 66 and, as another example, with a container 70, portions of said container being shown in broken line. The container 68 is formed of a plastic material and construction similar to that described for containers 22 and 46 of the foregoing embodiments. Container 70 may be formed of a suitable polymer with a lattice type wall construction and is characterized in being provided with a peripheral rim 72 of a circumference greater than that of rim 74 on container 68.

The cover 66 includes a planar, generally rectangular top wall 76 and four integral side walls 78. The side walls are inclined and diverged toward the bottom open end of the cover and extend at an angle ranging from 95° to 135° with respect to top wall 76, and in any event greater than 90° to the top wall. Preferably the angle should be about 100°. A peripheral reinforcing flange 80 is formed around the open end of the cover. The cover is fabricated from a suitable material providing the properties described from the covers for the foregoing embodiments, and the material is preferably poly-styrene having a wall thickness on the order of 10 mil.

Cooperative locking means is provided for causing interlocking engagement between the cover 66 and either of the containers 68, 70. For use with the containers 68 the cooperative locking means includes locking means 71 comprising four horizontally elongate indentations 82 formed at the midportions of the cover side walls and dimensioned to project inwardly into overlapping relationship with an adjacent portion of the container rim 74. The walls 82a of the indentations are substantially U-shaped in vertical cross section. The cover 66 is engaged with, and disengaged from container 68 in a manner similar to that explained above in connection with the embodiment of FIGS. 5 and 6.

For use with the relatively larger size container 70 the cooperative locking means includes locking means 83 comprising four T-shaped slots 84 formed in the corner portions of the cover. Each of the T-slots comprises a horizontal slot 84 extending across a respective corner and into the two adjacent side walls together with a vertical slot 86 intersecting with and projecting upwardly from the mid-portion of the horizontal slot on the edge of a respective corner. An inwardly projecting locking lip 88 is formed at each corner integral and co-planar with reinforcing flange 80. As best illustrated in FIG. 10 the pointed tips 90 of the adjacent side walls are somewhat inwardly bent to follow the contour of the locking lips. The locking lips extend inwardly a dimension sufficient to project into overlapping relationship with the rounded corners of container rim 72, as best illustrated in FIG. 11. The container 70 is secured in locking engagement with the cover when the locking lips 88 extend beneath the corner portion of the container rim, and at the same time the side walls tip 90 extend over the upper surface of the rim corners to prevent displacement therefrom.

The use and functioning of the cover 76 with a typical container 70 is as follows. With the relatively larger container 70 filled with the desired product, the cover 76 is secured in place by manually distorting the cover side walls somewhat together with twisting of the cover relative to the container, as required, until the four corners of the container rim are inserted into the horizontal slots 84 above the locking lips 88. This action is facilitated by outward flexing of the side walls tips 90 followed by return thereof by the action of plastic memory to a position above and in locking engagement with the upper surface of the container rim. The cover may be easily removed by the customer through manual distortion of the side walls in an amount sufficient to release the container rim from the horizontal slots and locking lips.
It will be noted that the engagement and disengagement between the cover and container is achieved without injury or damage to the cover or basket, thus permitting the cover to be reused by again locking it in place as described.

From the foregoing it is apparent that there has been provided new and improved covers for use with basket-type marketing containers or holding perishable agricultural products and the like. The covers are quickly and easily snapped in place and removed from the container. Instead of replacing the covers firmly lock with the containers preventing unintended removal and spillage of the product, and in addition the customer may pick up a fully loaded container by grasping the cover. The cover is adapted to be inexpensively made in a one-piece construction from a synthetic polymer material so that the cover is transparent, sanitary, protects the product from injury and deleterious matter, provides an air space above the product, is reusable, and affords stacking of the filled containers at the display area.

We claim:

1. A cover adapted to be used with a basket-type marketing container for carrying perishable agricultural products, said container having a bottom wall and four side walls joined to the bottom wall, with the top side being open, the upper end portion of said container having a rim extending about the upper end portion of the side walls, the cover comprising a top wall and side walls joined to the top wall to form an enclosure open at the bottom side, the side walls being inclined and divergent toward the bottom open end of the cover with the corner portions extending at an angle greater than 90° to the top wall, the lower end portion of the cover having a configuration similar to the upper end portion of the container and being dimensioned to seat over the upper end portion of the container so that there is a loose fit between the lower portion of the cover and the upper end of the container, and locking means on the cover adapted to form a locking engagement with said container rim to secure the cover to the rim of said container, said cover being formed of a relatively rigid material permitting some flexing of the walls whereby said locking means may be engaged with and disengaged from the container, said cover being formed so that said top wall of the cover is spaced a substantial distance above the rim to provide space for an agricultural product carried by the container and extending above the rim.

2. A cover as in claim 1 wherein the side walls of said cover are formed with indentations extending inwardly of said side walls of said cover and being positioned so that they are adapted to overlap the rim of said container when said cover is seated over the upper end of the container adjacent to said container rim, and wherein said slots are formed in said indentations.

3. A cover as in claim 2 wherein the side walls of said cover are formed with indentations extending inwardly of said side walls of said cover and being positioned so that they are adapted to overlap the rim of said container when said cover is seated over the upper end of the container adjacent to said container rim, and wherein said slots are formed in said indentations.

4. A cover as in claim 3 wherein said indentations are generally vertical and are formed with upwardly and inwardly inclined surface portions commencing adjacent said bottom end portions of the cover and terminating at said slots whereby upon seating movement of said cover on said container said inclined surface portions cause initial outward flexing of said side walls of said cover until said rim of said container seats in said slots to permit flexing return movement of said side walls of said cover so that said rim is locked in said slots.

5. A cover as in claim 1 in which said locking means includes indentations formed in said side walls of said cover adjacent the bottom end portions said indentations extending generally vertically and projecting upwardly and inwardly of said side walls of the cover whereby seating of said cover on said container and against said indentations flexes said container side walls outwardly sufficiently to permit clearance of said rim past said indentations followed by return movement of said side walls with said indentations carried into locking engagement with said rim.

6. A cover as in claim 2 in which said slots are formed in said four corner portions of the cover.

7. A cover as in claim 6 for use with a marketing container formed with its upper portion defining a reinforcing rim projecting outwardly around the periphery of said container side walls, and said slots comprise openings formed with lateral, upwardly converging side edges in the cover side walls, together with lips formed in said cover at each of said four corner portions, said lips projecting inwardly into overlapping relationship with said reinforcing rim whereby seating of said container upper end portion into the lower portion of the cover moves the container rim over and in locking engagement with said lips.

8. A cover as in claim 7 for selective use with a marketing container having a rim of circumferential dimension relatively smaller than the corresponding dimension of said rim of said first mentioned container, wherein said locking means includes indentations formed in said cover side walls, said indentations projecting inwardly of said side walls a sufficient dimension to overlap with an adjacent portion of the rim of said second mentioned container for locking engagement therewith.

9. A cover as in claim 7 including a substantially flat, outwardly extending peripheral flange formed at the bottom open end of said cover, the flange having corner portions adjacent the corner portions of said cover, and said lips are formed integral with said flange and extend inwardly from and in co-planar relationship with the corner portions of said flange.

10. A cover as in claim 6 in which said slots are formed in a T-shaped configuration.

11. A cover as in claim 6 in which said slots each comprise a horizontal slot and a vertical slot intersecting said horizontal slot at a mid-portion thereof.

12. A cover as in claim 11 in which said vertical slot extends upwardly from the mid-portion of said horizontal slot.

13. A cover as in claim 12 wherein said locking means includes locking lips formed at said corner portions of said cover and extending inwardly below said horizontal slot into overlapping relationship with the rim of said container for locking engagement therewith.

14. A cover as in claim 12 adapted for selective use with a container having a rim of a circumferential dimension less than the corresponding dimension of said rim of the first mentioned container, wherein said locking means includes indentations formed in said cover side walls, said indentations projecting inwardly into overlapping relationship with the rim of said second mentioned container.
15. The combination of a container, and a cover therefor for carrying perishable agricultural products, the container comprising a bottom wall and four side walls joined to the bottom wall and open at the top side, the upper portion of said container having a rim extending about the upper portion of the side walls, the cover comprising a top wall and four side walls joined to the top wall to form an enclosure open at the bottom side, the side walls of the cover being joined to form four corner portions, the side walls of the cover being inclined and divergent toward the bottom open end of the cover, the lower portion of the cover having a configuration similar to the upper end portion of the container and being dimensioned to seat over the upper end portion of the container so that there is a loose fit between the lower portion of the cover and the upper end of the container, and cooperative locking means carried by the cover and container for releasably securing said cover to said rim of said container, said cover being formed of a relatively rigid material permitting some flexing of the cover side walls by hand whereby said cooperative locking means may be operated to cause engagement of the cover with the container and disengagement of the cover from the container, said cover being formed so that said top wall of the cover is spaced a substantial distance above the rim to provide space for an agricultural product carried by the container and extending above the rim.

16. A container and cover as in claim 15 wherein said cooperative locking means includes slots formed in the cover and adapted to receive portions of said rim of said container.

17. A container and cover as in claim 16 wherein said slots are formed in the four corner portions of said cover.

18. A container and cover as in claim 17 wherein said slots are formed in a T-shaped configuration.

19. A container and cover as in claim 17 wherein said slots each comprise a horizontal slot and a vertical slot intersecting with and extending upwardly from said horizontal slot at a mid-portion thereof.

20. The combination of a container and a cover therefor for carrying perishable agricultural products, the container comprising a bottom wall and four side walls joined to the bottom wall and open at the top side, the upper portion of said container having a rim of substantially uniform cross sectional configuration along the circumference of said rim and extending about the upper portion of the side walls, the cover comprising a top wall and four side walls joined to the top wall to form an enclosure open at the bottom side, the side walls of the cover being joined to form four corner portions, the side walls of the cover being inclined and divergent toward the bottom open end of the cover, the lower portion of the cover having a configuration similar to the upper end portion of the container and being dimensioned to seat over the upper end portion of the container, and cooperative locking means carried by the cover and container for releasably securing said cover to said rim of said container, said cover being formed of a relatively rigid material permitting some flexing of the cover side walls by hand whereby said cooperative locking means may be operated to cause engagement of the cover with the container and disengagement of the cover from the container.

21. A container and cover as in claim 20 in which said cooperative locking means is provided only at locations spaced-apart about the periphery of the bottom open end of the cover.