PATENT SPECIFICATION 974,203

DRAWINGS ATTACHED.

974,203

Date of Application and filing Complete Specification :
Jan. 24, 1963. *No. 3117/63.*

Application made in United States of America (No. 172,007) on Feb. 8, 1962.

Complete Specification Published : Nov. 4, 1964.

© *Crown Copyright 1964.*

Index at Acceptance :—**B8** D(1A1, 1B1, 2B, 7N, 13) ; **A2** D(2S, 3B) ; **B8** T4A.

International Classification :—B 65 d (A 23 l, B 67 b).

COMPLETE SPECIFICATION.

An Improved Container.

We, REXALL DRUG AND CHEMICAL COMPANY, a Corporation organised and existing under the Laws of the State of Delaware, United States of America, of 8480 Beverly Boulevard, Los Angeles 54, State of California, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

The invention relates to containers and is concerned particularly with an airtight container for storing perishable food.

The invention provides an air-tight container for storing perishable food and comprising a hollow open-topped vessel having a base and side walls upstanding from the base, handles integral with the outside of the side walls, and a cover of resilient material which comprises a plate-like top and a peripheral rim of U-shaped cross-section, the rim being positionable around the upper edges of the side walls of the vessel with the open mouth of the U facing downwardly to engage tightly and resiliently the said upper edges whereby to seal the open top of the vessel.

The container may be provided with a tray comprising a generally flat base with upstanding ridges and an upstanding peripheral rim and at least one handle at each end of the tray, said tray fitting inside the container and having downward legs or projections on the underside of the base which engage the upper side of the base of the container, the tray being removable from the container by the handles. Preferably the handles extend across the tray and are of resilient material.

More specifically the invention provides an air-tight container for storing perishable food and comprising a hollow open-topped vessel which is a one-piece moulding and has a base and a continuous side wall upstanding from the base, the vessel having an elongated D-shaped horizontal cross-section, a moulded recess on the underside of the base, a reinforcing flange projecting from the outside of the side wall adjacent to its top end, a plurality of gussets spaced around the wall to reinforce the flange, the side wall being flared slightly outwardly of the vessel at its extreme top edge and two opposed handles which are formed as enlarged extensions of the flange supported by enlarged gussets, a cover of resilient material for the vessel and which comprises a plate-like top and a continuous peripheral rim of U-shaped cross-section, the rim being positionable around the flared portion of the side wall with the open mouth of the U facing downwardly at the same angle as the top of the flared portion of the side wall to engage tightly and resiliently the said flared portion and a tray, which is positionable inside the vessel and is of elongated D-shape which tray comprises as a one-piece moulding a generally flat base with upstanding ridges and a peripheral rim, legs projecting below the base and positionable on the base of the vessel and a handle upstanding from the opposed narrower ends of the tray, a first handle of semicircular shape upstanding from adjacent the end of the tray formed by the straight portion of the D-shape and a second handle of inverted V-shape upstanding from the other end of the tray, both handles being flexible towards and away from each other.

A specific example of a container in accordance with the invention will now be described with reference to the accompanying drawings in which :—

Figure 1 is a perspective view of the closed container ;

Figure 2 is an exploded perspective view

[*Price* 4*s.* 6*d.*]

of the container showing the internal tray;

Figure 3 is a vertical cross-section taken on line 3—3 in Figure 1;

Figure 4 is a vertical cross-section taken on line 4—4 of Figure 1; and

Figure 5 is a plan view of the tray.

Referring to the drawings, the container includes a continuous side wall 10, preferably formed in an elongated D-shape, and an integral base 11 which is recessed in the central portion as shown in Figures 3 and 4. The recessed central portion of the base 11 permits free flow of cold air along the base to accelerate cooling of the contents of the container. The joint between the walls 10 and the base 11 is rounded to permit easy cleaning of the inside surface of the container.

Handles 12 and 13 are affixed one to each end of the container. Each handle includes a substantially flat portion extending outwardly and downwardly from the side wall 10 and a pair of gusset plates supporting the handle rigidly to the side wall 10. The top surface of the handle is rippled.

Integral with the side wall 10 is an outwardly and downwardly extending reinforcing flange 14 which extends around the entire periphery of the side wall 10 with the exception of the area of the handles 12 and 13. The flange 14 is reinforced by integral underlying gusset plates 15 spaced around the periphery.

The upper edge of the side wall 10 is preferably flared at 16 for attachment of a cover to be described hereinafter.

The cover comprises a central, flat wall 17 having a peripheral rim. The rim has an inside upstanding wall 18, a connecting wall 19 and an outside downwardly directed rim wall 20. The rim wall 20 has an outwardly directed flange for gripping to cover ~~during~~ during removal from the wall 10.

The walls 18, 19 and 20 form an inverted "U"-shaped seal which fits over the upper flared portion 16 of the side wall 10 and provides a tight and resilient contact between the inside surfaces of the walls 18 and 20 and the surfaces of the wall 10. The inside surfaces of walls 18 and 20 are inclined preferably at the same angle as the flared portion 16 of the side wall 10. The inclination is preferably between 7° and 13° from the vertical. Ideally the flared portion 16 is inclined between about 10° and 12°. At one end of the cover is a tab 21 which provides a positive grip for stripping the cover from the wall 10.

A tray, generally referred to by numeral 22, comprises a substantially flat base 23 of elongated D-shape having raised ridges 24 which extend substantially the entire length of the tray as shown in Figure 4 and an upstanding peripheral rim 25 to which is attached an inverted "V"-shaped handle 26 and a semi-circular handle 27. The handles 26 and 27 are located at opposite ends of the tray and are flexible so that they can be moved from the solid line position to the dash line positions shown in Figure 4. Preferably the tray includes a downwardly extending leg 28 at each end of its ends which is positioned to seat near the joint between the walls 10 and the base 11 of the container and immediately above the central raised portion of the base 11.

Preferably the cover is made of regular polyethylene and therefore has a resilient flexibility and yieldability which ensures sealing of the walls 18 and 20 about the flared portion 16 of the side wall 10. The construction of the cover and wall is illustratively described in Specification No. 662,219. The walls 10 and 11 are preferably made of linear polyethylene thereby giving them rigidity with a minimum flexibility.

The tray 22 is preferably made of linear polyethylene but such materials as polypropylene can also be used so long as the handles 26 and 27 have a flexibility as herein described.

It is within the scope of this invention that the container and tray can be made of any known plastics materials so long as the cover 17 effectively and tightly engages the top edge of the wall 10 and the tray 22 is non-deformable when hot perishables are placed upon the tray.

In use, the sealed container and tray containing a perishable is removed from a refrigerator; the cover is removed by pulling upwardly on the tab 21, and the tray 22 is lifted out from the container by grasping the handles 26 and 27. The perishable on the tray 22 may be carved thereon without removal to a cutting board.

While the preferred embodiment of the invention has been described, the invention may be otherwise embodied within the scope of the following claims:—

WHAT WE CLAIM IS:—

1. An air-tight container for storing perishable food and comprising a hollow open-topped vessel having a base and side walls upstanding from the base, handles integral with the outside of the side walls, and a cover of resilient material which comprises a plate-like top and a peripheral rim of U-shaped cross-section, the rim being positionable around the upper edges of the side walls of the vessel with the open mouth of the U facing downwardly to engage tightly and resiliently the said upper edges whereby to seal the open top of the vessel.

2. A container as claimed in Claim 1 in combination with a tray comprising a generally flat base with upstanding ridges and an upstanding peripheral rim and at least one handle at each end of the tray, said tray fitting inside the container and

* C L M S *

of the container showing the internal tray;

Figure 3 is a vertical cross-section taken on line 3—3 in Figure 1;

Figure 4 is a vertical cross-section taken on line 4—4 of Figure 1; and

Figure 5 is a plan view of the tray.

Referring to the drawings, the container includes a continuous side wall 10, preferably formed in an elongated D-shape, and an integral base 11 which is recessed in the central portion as shown in Figures 3 and 4. The recessed central portion of the base 11 permits free flow of cold air along the base to accelerate cooling of the contents of the container. The joint between the walls 10 and the base 11 is rounded to permit easy cleaning of the inside surface of the container.

Handles 12 and 13 are affixed one to each end of the container. Each handle includes a substantially flat portion extending outwardly and downwardly from the side wall 10 and a pair of gusset plates supporting the handle rigidly to the side wall 10. The top surface of the handle is rippled.

Integral with the side wall 10 is an outwardly and downwardly extending reinforcing flange 14 which extends around the entire periphery of the side wall 10 with the exception of the area of the handles 12 and 13. The flange 14 is reinforced by integral underlying gusset plates 15 spaced around the periphery.

The upper edge of the side wall 10 is preferably flared at 16 for attachment of a cover to be described hereinafter.

The cover comprises a central, flat wall 17 having a peripheral rim. The rim has an inside upstanding wall 18, a connecting wall 19 and an outside downwardly directed rim wall 20. The rim wall 20 has an outwardly directed flange for gripping to cover ~~during~~ during removal from the wall 10.

The walls 18, 19 and 20 form an inverted "U"-shaped seal which fits over the upper flared portion 16 of the side wall 10 and provides a tight and resilient contact between the inside surfaces of the walls 18 and 20 and the surfaces of the wall 10. The inside surfaces of walls 18 and 20 are inclined preferably at the same angle as the flared portion 16 of the side wall 10. The inclination is preferably between 7° and 13° from the vertical. Ideally the flared portion 16 is inclined between about 10° and 12°. At one end of the cover is a tab 21 which provides a positive grip for stripping the cover from the wall 10.

A tray, generally referred to by numeral 22, comprises a substantially flat base 23 of elongated D-shape having raised ridges 24 which extend substantially the entire length of the tray as shown in Figure 4 and an upstanding peripheral rim 25 to which is attached an inverted "V"-shaped handle 26 and a semi-circular handle 27. The handles 26 and 27 are located at opposite ends of the tray and are flexible so that they can be moved from the solid line position to the dash line positions shown in Figure 4. Preferably the tray includes a downwardly extending leg 28 at each end of its ends which is positioned to seat near the joint between the walls 10 and the base 11 of the container and immediately above the central raised portion of the base 11.

Preferably the cover is made of regular polyethylene and therefore has a resilient flexibility and yieldability which ensures sealing of the walls 18 and 20 about the flared portion 16 of the side wall 10. The construction of the cover and wall is illustratively described in Specification No. 662,219. The walls 10 and 11 are preferably made of linear polyethylene thereby giving them rigidity with a minimum flexibility.

The tray 22 is preferably made of linear polyethylene but such materials as polypropylene can also be used so long as the handles 26 and 27 have a flexibility as herein described.

It is within the scope of this invention that the container and tray can be made of any known plastics materials so long as the cover 17 effectively and tightly engages the top edge of the wall 10 and the tray 22 is non-deformable when hot perishables are placed upon the tray.

In use, the sealed container and tray containing a perishable is removed from a refrigerator; the cover is removed by pulling upwardly on the tab 21, and the tray 22 is lifted out from the container by grasping the handles 26 and 27. The perishable on the tray 22 may be carved thereon without removal to a cutting board.

While the preferred embodiment of the invention has been described, the invention may be otherwise embodied within the scope of the following claims:—

WHAT WE CLAIM IS:—

1. An air-tight container for storing perishable food and comprising a hollow open-topped vessel having a base and side walls upstanding from the base, handles integral with the outside of the side walls, and a cover of resilient material which comprises a plate-like top and a peripheral rim of U-shaped cross-section, the rim being positionable around the upper edges of the side walls of the vessel with the open mouth of the U facing downwardly to engage tightly and resiliently the said upper edges whereby to seal the open top of the vessel.

2. A container as claimed in Claim 1 in combination with a tray comprising a generally flat base with upstanding ridges and an upstanding peripheral rim and at least one handle at each end of the tray, said tray fitting inside the container and

having downward legs or projections on the underside of the base which engage the upper side of the base of the container, the tray being removable from the container by the handles.

3. The combination as claimed in Claim 2 in which the handles extend across the tray and are of resilient material.

4. An air-tight container for storing perishable food and comprising a hollow open-topped vessel which is a one-piece moulding and has a base and a continuous side wall upstanding from the base, the vessel having an elongated D-shaped horizontal cross-section, a moulded recess on the underside of the base, a reinforcing flange projecting from the outside of the side wall adjacent its top end, a plurality of gussets spaced around the wall to reinforce the flange, the side wall being flared slightly outwardly of the vessel at its extreme top edge and two opposed handles which are formed as enlarged extensions of the flange supported by enlarged gussets, a cover of resilient material for the vessel and which comprises a plate-like top and a continuous peripheral rim of U-shaped cross-section, the rim being positionable around the flared portion of the side wall with the open mouth of the U facing downwardly at the same angle as the top of the flared portion of the side wall to engage tightly and resiliently the said flared portion and a tray, which is positionable inside the vessel and is of elongated D-shape which tray comprises as a one-piece moulding a generally flat base with upstanding ridges and a peripheral rim, legs projecting below the base and positionable on the base of the vessel and a handle upstanding from the opposed narrower ends of the tray, a first handle of semicircular shape upstanding from adjacent the end of the tray formed by the straight portion of the D-shape and a second handle of inverted V-shape upstanding from the other end of the tray, both handles being flexible towards and away from each other.

5. A container substantially as herein described with reference to and as shown in Figures 1 to 4 of the accompanying drawings.

6. The combination of a container and a tray substantially as herein described with reference to Figures 1—5 of the accompanying drawings.

BOULT, WADE & TENNANT,
111 & 112 Hatton Garden, London, E.C.1,
Chartered Patent Agents,
Agents for the Applicants.

Abingdon : Printed for Her Majesty's Stationery Office, by Burgess & Son (Abingdon), Ltd.—1964.
Published at The Patent Office, 25 Southampton Buildings, London, W.C.2,
from which copies may be obtained.

