

PATENT SPECIFICATION (11)

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(54) IMPROVEMENTS IN OR RELATING TO A CONTAINER

(71) We, DART INDUSTRIES INC., a corporation organized and existing under the laws of the State of Delaware, United States of America, of Post Office Box 3157, Terminal Annex, Los Angeles, California, 90051 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 present invention relates to a container and more particularly to a container for storing consumables such as sausages (especially frankfurters) or the like.

According to this invention there is provided a container for consumables comprising a bottom dished part having a bottom provided with a plurality of upwardly extending pyramidal projections, the included angle at the apex of each said projection being substantially 90°, and the side walls of each projection being at an angle of substantially 135° relative to a flat portion of the bottom wall which connects the base of one projection to the base of an adjacent projection, there being upstanding side walls around the periphery of the bottom, said side walls including a plurality of elongate inwardly slanted portions at the lower extremities thereof, the angle of slant of the slanted portions relative to the bottom wall of the container being substantially the same as the angle of inclination of the sides of said pyramidal projections thereto, and a closure member positionable in vapour-tight sealing engagement with said bottom dished part to form a closed container.

In order that the invention may be more readily understood and so that further features thereof may be appreciated the invention will now be described by way of example and with reference to the accompanying drawings in which;

Figure 1 is an exploded perspective view of a container in accordance with the present invention;

Figure 2 is an end view of the container shown in Figure 1 with the closure member in the closed position;

Figure 3 is a cross-section view taken on line 3—3 of Figure 2;

Figure 4 is a bottom plan view of the closure member of the container.

Figure 5 is a top plan view of the dished part of the container;

Figure 6 is an enlarged cross-section taken on line 6—6 of Figure 4;

Figure 7 is a bottom plan view on the same scale of the circled portion 7 of Figure 5;

Figure 8 is an enlarged cross-sectional view taken on line 8—8 of Figure 5, and further showing in phantom a plurality of sausages supported in typical fashion therein; and

Figure 9 is an enlarged view of the circled portion 9 of Figure 3.

A moulded plastics material container 5 for sausage is shown in exploded perspective in Figure 1 and comprises a bottom dished part 6 and a tightly fitting closure member 7. The member 7 has a generally planar centre wall 8 and a peripheral upstanding inverted U-shaped rim 9. The rim consists of an upstanding inner wall 10, an outwardly extending connecting wall 11, and a downwardly depending outer wall 12. The walls forming the rim 9 define a slot which has an inner face 13 of the wall 12 thereof, said member 7 being moulded so that the face 13 lies at approximately 11½° to the vertical. Furthermore, there is a similar inner face 14 on the wall 10 which face is disposed substantially vertically so that when the rim is placed on the dished part 6, the walls 10 and 12 pinch together forming a vapour-tight seal around the top edge of the dished part 6. In addition the closure member 7 is tightly stretched as it is placed in a sealing position on the bottom part 6 thereby to assist in maintaining a tight sealed condition therewith.

The dished bottom part 6 includes a generally rectangular bottom wall 15 with rounded corners and having continuous upstanding peripheral walls including end walls 16 and 17 and side walls 18 and 19. Each of the end and side walls has an inwardly slanted portion 20 at its lower extremity which joins with the bottom wall 15 as shown for example in Figure 1. Each slanted

portion 20 extends almost to the corners of the dished part 6 but at each corner there is defined a corner recess 21.

The bottom wall 15 has a plurality of upwardly extending 4-sided pyramidal projections (see Figures 3, 5 and 8) each having four triangular sides 22. The pyramidal projections are aligned and are spaced equidistant, one from the other, and the apices of adjacent projections lie approximately 1" apart. Thus the projections are in parallel rows which extend parallel to the side walls, and the rows of projections extend both width wise and length wise of the bottom wall. The side walls 22 of the pyramidal projections lie at approximately a 135° angle to the plane of the bottom wall 15 and the included angle of each apex is approximately 90°.

Referring to Figure 8, a plurality of sausages such as frankfurters or the like, are shown in position between the pyramidal projections, the arrangement being such as to minimize the contact between the sausages and the container and between the sausages themselves. Thus, air may flow around the sausages to permit rapid cooling or freezing and because of their separation, the sausages cannot stick to each other during freezing, thereby permitting easy removal of individual sausages from the container when desired.

It is envisaged that sausages will be located in the container and frozen by placing the container in a freezer, and will then be removed from the container as and when required. The width of the container is approximately 6", thereby permitting the placement of 10 short sausages or frankfurters transverse of the length of the container. The length of the container is approximately 10", thereby permitting the placement of 6 long sausages or frankfurters lengthwise of the container instead of the placement of 10 short frankfurters widthwise of the container. The height of the bottom part 6 is approximately 1½", thereby providing clearance for the sausages or frankfurters after placement in the container and engagement of the closure member on the container without the closure member contacting the sausages.

It will be appreciated that various other uses can be made of the present invention for example for storage of consumables such as meats, or the like, where it is desired to have some drainage of the consumable and support of the consumable above the bottom wall of the container.

It is preferable that the bottom part 6 of the container be fabricated by injection moulding from high density polyethylene or polypropylene and that the closure member

7 be fabricated from a flexible and resilient low density polyethylene.

WHAT WE CLAIM IS:—

1. A container for consumables comprising a bottom dished part having a bottom provided with a plurality of upwardly extending pyramidal projections, the included angle of the apex of each said projection being substantially 90°, and the side walls of each projection being at an angle of substantially 135° relative to a flat portion of the bottom wall which connects the base of one projection to the base of an adjacent projection, there being upstanding side walls around the periphery of the bottom, said side walls including a plurality of elongate inwardly slanted portions at the lower extremities thereof, the angle of slant of the slanted portions relative to the bottom wall of the container being substantially the same as the angle of inclination of the sides of said pyramidal projections thereto, and a closure member positionable in vapour-tight sealing engagement with said bottom dished part to form a closed container.

2. A container according to claim 1, wherein the projections are in parallel rows extending parallel to said side walls or substantially parallel thereto.

3. A container according to claim 2 wherein the container is generally rectangular in plan, and the rows of projections extend both lengthwise and widthwise of said bottom wall.

4. A container according to claim 3 wherein each side wall includes a single slanted portion, each said slanted portion extending almost to the corners of the container and the ends of adjacent slanted portions defining a corner recess at each corner of the container.

5. A container according to any one of the preceding claims, wherein the arrangement of said projections is such that when a plurality of consumables are introduced to said bottom dished part, said consumables will be separated one from the other by said projections.

6. A container according to any one of the preceding claims in combination with a plurality of sausages, said sausages being supported on said projections and not in contact with the bottom wall or each other.

7. A container for consumables substantially as herein described with reference to and as shown in the accompanying drawings.

8. A method of freezing sausages comprising the steps of placing sausages in a container according to any one of claims 1 to 5 or 7 with the sausages supported on



portion 20 extends almost to the corners of the dishd part 6 but at each corner there is defined a corner recess 21.

5 The bottom wall 15 has a plurality of upwardly extending 4-sided pyramidal projections (see Figures 3, 5 and 8) each having four triangular sides 22. The pyramidal projections are aligned and are spaced equidistant, one from the other, and the apices of adjacent projections lie approximately 1" apart. Thus the projections are in parallel rows which extend parallel to the side walls, and the rows of projections extend both width wise and length wise of the bottom wall. The side walls 22 of the pyramidal projections lie at approximately a 135° angle to the plane of the bottom wall 15 and the included angle of each apex is approximately 90°.

20 Referring to Figure 8, a plurality of sausages such as frankfurters or the like, are shown in position between the pyramidal projections, the arrangement being such as to minimize the contact between the sausages and the container and between the sausages themselves. Thus, air may flow around the sausages to permit rapid cooling or freezing and because of their separation, the sausages cannot stick to each other during freezing, thereby permitting easy removal of individual sausages from the container when desired.

35 It is envisaged that sausages will be located in the container and frozen by placing the container in a freezer, and will then be removed from the container as and when required. The width of the container is approximately 6", thereby permitting the placement of 10 short sausages or frankfurters transverse of the length of the container. The length of the container is approximately 10", thereby permitting the placement of 6 long sausages or frankfurters lengthwise of the container instead of the placement of 45 10 short frankfurters widthwise of the container. The height of the bottom part 6 is approximately 1 1/4", thereby providing clearance for the sausages or frankfurters after placement in the container and engagement of the closure member on the container without the closure member contacting the sausages.

50 It will be appreciated that various other uses can be made of the present invention for example for storage of consumables such as meats, or the like, where it is desired to have some drainage of the consumable and support of the consumable above the bottom wall of the container.

60 It is preferable that the bottom part 6 of the container be fabricated by injection moulding from high density polyethylene or polypropylene and that the closure member

7 be fabricated from a flexible and resilient low density polyethylene.

WHAT WE CLAIM IS:—

1. A container for consumables comprising a bottom dishd part having a bottom provided with a plurality of upwardly extending pyramidal projections, the included angle of the apex of each said projection being substantially 90°, and the side walls of each projection being at an angle of substantially 135° relative to a flat portion of the bottom wall which connects the base of one projection to the base of an adjacent projection, there being upstanding side walls around the periphery of the bottom, said side walls including a plurality of elongate inwardly slanted portions at the lower extremities thereof, the angle of slant of the slanted portions relative to the bottom wall of the container being substantially the same as the angle of inclination of the sides of said pyramidal projections thereto, and a closure member positionable in vapour-tight sealing engagement with said bottom dishd part to form a closed container.

2. A container according to claim 1, wherein the projections are in parallel rows extending parallel to said side walls or substantially parallel thereto.

3. A container according to claim 2 wherein the container is generally rectangular in plan, and the rows of projections extend both lengthwise and widthwise of said bottom wall.

4. A container according to claim 3 wherein each side wall includes a single slanted portion, each said slanted portion extending almost to the corners of the container and the ends of adjacent slanted portions defining a corner recess at each corner of the container.

5. A container according to any one of the preceding claims, wherein the arrangement of said projections is such that when a plurality of consumables are introduced to said bottom dishd part, said consumables will be separated one from the other by said projections.

6. A container according to any one of the preceding claims in combination with a plurality of sausages, said sausages being supported on said projections and not in contact with the bottom wall or each other.

7. A container for consumables substantially as herein described with reference to and as shown in the accompanying drawings.

8. A method of freezing sausages comprising the steps of placing sausages in a container according to any one of claims 1 to 5 or 7 with the sausages supported on



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said projections not in contact with said
bottom wall and not in contact with each
other and placing the container in a freezer.

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