

PATENT SPECIFICATION (11)

1 463 330

1 463 330

- (21) Application No. 46374/74 (22) Filed 25 Oct. 1974 (19)
 (31) Convention Application No. 436 323 (32) Filed 24 Jan. 1974 in
 (33) United States of America (US)
 (44) Complete Specification published 2 Feb. 1977
 (51) INT. CL.² A47J 43/20
 (52) Index at acceptance
 A4A 1A 1B1 1B4B 1B5 1B7A 2B 6A 6F



(54) IMPROVEMENTS IN OR RELATING TO A MOULD AND STORAGE MEMBER

(71) We, DART INDUSTRIES INC., a Corporation organised and existing under the laws of the State of ~~California~~ ^{Delaware} United States of America, of 8480 Beverley Boulevard, Los Angeles, 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:—

This invention relates to a mould and storage member suitable for forming and storing mouldable foodstuffs and the like (such as gelatin desserts and the like) and more particularly to a plural member ring mould. Foodstuff materials of a congealable nature such as gelatin desserts are particularly suitable for use with the member of the present invention and owing to its plural-piece construction the dessert is easily released therefrom after being moulded.

Ice and foodstuff ring moulds have been previously proposed but such proposals are lacking in an easy means to release the product therefrom and are not structured to function in a sealed capacity.

Accordingly, one object of this invention is to provide an improved mould member which reduces the deficiencies in the previous proposals and simultaneously retains the typical attractive ring effects found in foodstuffs moulded in this fashion.

According to this invention there is provided a mould and storage member suitable for forming and storing mouldable foodstuffs and the like therein, and comprising: an outer mould portion having a contoured side wall having interior and exterior surfaces, said wall extending from a larger opening at one end of the outer mould portion to a smaller opening at the other end thereof, said outer mould portion being provided with an upstanding peripheral flange around the opening at each end thereof, a centre mould portion adapted in use to co-operate with the outer mould portion, said centre mould portion having a contoured side wall of a height at least equal to the side wall height of said outer mould portion but of lesser height than the dimension between the ex-

treme ends of said flanges, the contour of the exterior surface of said centre mould portion side wall being substantially a mirror image of the contour of the interior surface of the side wall of said outer mould portion, said centre mould portion further including at one terminus of the sidewall thereof a substantially planar and integral wall and means at the other terminus sealingly to interconnect said mould portions one to the other in such fashion that the transition between the interior surface of the outer portion and the exterior surface of the centre portion is substantially smooth and that together these surfaces form a substantially uniformly contoured surface area of annular-like configuration; and a resilient end closure adapted to extend across said larger opening and having means sealingly to interconnect with the flange around that opening, said closure further including a substantially planar main wall, a portion of which is adapted to be placed in juxtaposition with the planar and integral wall of said centre mould portion.

More specifically the invention relates to a reusable mould and storage member for ice and foodstuffs of the type that are introduced into a mould as a mouldable material and may be formed in a mould to a shape-retaining solid conforming to the contours of the mould. The mould member includes a plurality of components including a closure which is used to seal a larger opening in an outer mould portion. The mould members is completed by a centre mould portion that also acts as a closure and has a hub portion that is inwardly directed into the outer mould portion so as to form an annular-like configuration within the mould. The centre mould portion is, of course, adapted for engagement within a smaller opening of the outer mould portion. When the mould member is filled with water, gelatin dessert or other ingestible material which subsequently congeals or hardens to a shape-retaining solid, the moulded solid is of a ring configuration.

In order that the invention may be more readily understood one embodiment of a mould and storage member will now be des-

cribed by way of example, and with reference to, the accompanying drawings in which:—

Figure 1 is an exploded perspective view of the mould member illustrating the association of the respective parts thereof, a planar closure being assembled to extend across the larger opening of an outer mould portion and a centre mould portion being positioned in a smaller opening of the outer mould portion;

Figure 2 is a cross-sectional view of the assembled mould member, this Figure illustrating again the substance of what is shown in Figure 1;

Figure 3 is an enlarged fragmentary sectional view of a portion of the mould member of Figure 2 showing the sealing structure between the outer and centre mould portions;

Figure 4 is an elevational view of the centre mould portion;

Figure 5 is a top plan view of the centre mould portion; and

Figure 6 is a top plan view of the assembled mould without the planar closure on the larger opening.

In this preferred embodiment of this invention the reusable mould member is particularly suitable for ice and foodstuffs of the type that are introduced into the mould member as a mouldable material and is formed therein to a moulded shape-retaining solid. This embodiment is fabricated from plastics material and as best seen in Figure 1, includes an outer mould portion 10, a resilient end closure 12, and a centre mould portion 14. The outer mould portion 10 is contoured from a larger opening 16 at one end thereof to a smaller opening 18 at the other end thereof. The larger opening 16 is provided in the outer mould portion 10 for the removal of the shape-retaining product from the mould. Furthermore, the mould portion 10 is provided, around the larger opening 16, with a laterally extending peripheral rim 20 and an upstanding peripheral flange 22 extending from said rim. There is a similar upstanding peripheral flange 24 around the smaller opening 18. Either of these flanges, with or without closure members which they are adapted to abut, are adapted to maintain the outer mould portion 10 in a stable resting position when placed on a supporting surface.

The outer ring mould portion, as is apparent in Figures 1, 2 and 3 further includes a contoured side wall 26 which has an interior surface 28 and an exterior surface 30. This side wall is also arcuately shaped, generally along a longitudinal axis, through the mould portion.

Likewise, upon examination of Figures 1 to 4, it may be seen that the centre mould portion 14 is formed by a contoured side wall 32 also including interior and exterior sur-

faces 34 and 36, respectively. The side wall 32 terminates at one end in a substantially planar and integral wall 38 and at the other end in a peripherally extending U-shaped sealing groove formed by a plurality of interconnected walls 40, 42, 44. Thus U-shaped groove is adapted to accommodate flange 24 of outer mould portion 10 and sealingly to interconnect the mentioned portions.

The exterior surface 36 of said wall 32 is also formed substantially as a mirror image of interior surface 28 of outer portion 10. Accordingly, such surface is arcuately shaped in the manner above described. Thus, when the portions are interengaged, as in Figures 2 and 3, the respective interior and exterior surfaces 28 and 36 have a substantially smooth transition one to the other and form a substantially uniformly contoured surface area of annular-like configuration.

Each of the mould portions 10 and 14 is in this particular embodiment generally circular in cross-section. However, it should be apparent that other cross-sectional shapes might be employed if so desired. Further, each portion is shown to include a plurality of arcuately shaped recesses 46 that appear in the respective interior and exterior surfaces 28 and 36. Recesses 46 are positioned therein in general parallelism with the above-mentioned central axis of the mould. Such recesses terminate at one end in the rim 20 of the outer mould 10 and in the planar wall 38 of the centre mould 14. At the other ends in these portions such recesses simply smoothly blend back into the respective wall surfaces. These, of course, serve decoratively to deform the moulded product.

The ring mould portion 14 is also constructed so that the height (axial dimension) of side-wall 32 is at least equal to, and preferably slightly greater than, the height of side wall 26, but of lesser height than the dimension between the extreme ends of the flanges. This will effectively retain the mouldable foodstuff or the like inserted therein in ring form.

The remaining part of the mould is the resilient end closure 12 that is adapted sealingly to interconnect with the terminal flange 22 around the larger opening in portion 10. Closure 12 includes a peripheral U-shaped groove similar to that included on and described in connection with mould portion 14. The central portion thereof is formed as a substantially planar main wall 48. When the closure is applied to the mould wall 48, as may be seen in Figure 2, a portion of the planar wall thereof is juxtaposed to the planar wall 38 of centre mould portion 14. Such juxtaposed relationship accordingly assures the formation of a moulded ring product.

A material advantage of the plural piece construction above-described is the ease with which moulded products may be released therefrom. After removal of the closure 12, the mould may be inverted on a serving platter, plate or the like and upon removal of the centre mould portion, the product will by its own weight exit the outer mould portion 10 onto the serving surface.

WHAT WE CLAIM IS:—

1. A mould and storage member suitable for forming and storing mouldable foodstuffs and the like therein, and comprising: an outer mould portion having a contoured side wall having interior and exterior surfaces, said wall extending from a larger opening at one end of the outer mould portion to a smaller opening at the other end thereof, said outer mould portion being provided with an upstanding peripheral flange around the opening at each end thereof; a centre mould portion adapted in use to co-operate with the outer mould portion, said centre mould portion having a contoured side wall of the height at least equal to the side wall height of said outer mould portion but of lesser height than the dimension between the extreme ends of said flanges, the contour of the exterior surface of said centre mould portion side wall being substantially a mirror image of the contour of the interior surface of the side wall of said outer mould portion, said centre mould portion further including at one terminus of the side wall thereof a substantially planar and integral wall and means at the other terminus sealingly to interconnect said mould portions one to the other in such fashion that the transition between the interior surfaces of the outer portion and the exterior surface of the centre portion is substantially smooth and that together these surfaces form a substantially uniformly contoured surface area of annular-like configuration; and a resilient end closure adapted to extend across said larger opening and having means sealingly to interconnect with the flange around that opening, said

closure further including a substantially planar main wall, a portion of which is adapted to be placed in juxtaposition with the planar and integral wall of said centre mould portion.

2. A mould and storage member according to claim 1, wherein said outer and centre mould portions are generally of circular cross-section.

3. A mould and storage member according to claim 1 or 2, wherein the contoured side walls of said outer and centre mould portions are arcuate in shape.

4. A mould and storage member according to any one of the preceding claims, wherein the interior and exterior surfaces of the outer and centre mould portions respectively include a plurality of arcuately shaped recesses.

5. A mould and storage member according to claim 4, wherein said arcuately shaped recesses are in general parallelism with a central axis of the mould and those in the outer mould terminate at the larger end thereof in a laterally extending rim that is interposed between said flange and the contoured side wall.

6. A reusable mould and storage member according to claim 5, wherein the arcuately shaped recesses included in the centre mould portion, at one end, terminate in said planar and integral wall.

7. A mould and storage member substantially as hereinbefore described with reference to, and as shown in Figures 1 to 3 and Figure 6 of the accompanying drawings.

FORRESTER, KETLEY & CO.,

Chartered Patent Agents,
Forrester House, 52 Bounds Green Road,
London N11 2EY,

and
Rutland House, Edmund Street,
Birmingham B3 2LD,

and also at
Scottish Provident Building,
Glasgow G1 2DT.
Agents for the Applicants.

A material advantage of the plural piece construction above-described is the ease with which moulded products may be released therefrom. After removal of the closure 12, the mould may be inverted on a serving platter, plate or the like and upon removal of the centre mould portion, the product will by its own weight exit the outer mould portion 10 onto the serving surface.

WHAT WE CLAIM IS:—

1. A mould and storage member suitable for forming and storing mouldable foodstuffs and the like therein, and comprising: an outer mould portion having a contoured side wall having interior and exterior surfaces, said wall extending from a larger opening at one end of the outer mould portion to a smaller opening at the other end thereof, said outer mould portion being provided with an upstanding peripheral flange around the opening at each end thereof; a centre mould portion adapted in use to co-operate with the outer mould portion, said centre mould portion having a contoured side wall of the height at least equal to the side wall height of said outer mould portion but of lesser height than the dimension between the extreme ends of said flanges, the contour of the exterior surface of said centre mould portion side wall being substantially a mirror image of the contour of the interior surface of the side wall of said outer mould portion, said centre mould portion further including at one terminus of the side wall thereof a substantially planar and integral wall and means at the other terminus sealingly to interconnect said mould portions one to the other in such fashion that the transition between the interior surfaces of the outer portion and the exterior surface of the centre portion is substantially smooth and that together these surfaces form a substantially uniformly contoured surface area of annular-like configuration; and a resilient end closure adapted to extend across said larger opening and having means sealingly to interconnect with the flange around that opening, said

closure further including a substantially planar main wall, a portion of which is adapted to be placed in juxtaposition with the planar and integral wall of said centre mould portion. 50

2. A mould and storage member according to claim 1, wherein said outer and centre mould portions are generally of circular cross-section. 55

3. A mould and storage member according to claim 1 or 2, wherein the contoured side walls of said outer and centre mould portions are arcuate in shape. 60

4. A mould and storage member according to any one of the preceding claims, wherein the interior and exterior surfaces of the outer and centre mould portions respectively include a plurality of arcuately shaped recesses. 65

5. A mould and storage member according to claim 4, wherein said arcuately shaped recesses are in general parallelism with a central axis of the mould and those in the outer mould terminate at the larger end thereof in a laterally extending rim that is interposed between said flange and the contoured side wall. 70 75

6. A reusable mould and storage member according to claim 5, wherein the arcuately shaped recesses included in the centre mould portion, at one end, terminate in said planar and integral wall. 80

7. A mould and storage member substantially as hereinbefore described with reference to, and as shown in Figures 1 to 3 and Figure 6 of the accompanying drawings. 85

FORRESTER, KETLEY & CO.,

Chartered Patent Agents,
Forrester House, 52 Bounds Green Road,
London N11 2EY,

and
Rutland House, Edmund Street,
Birmingham B3 2LD,

and also at
Scottish Provident Building,
Glasgow G1 2DT.
Agents for the Applicants.

