

PATENT SPECIFICATION (11)

1 459 919



- (21) Application No. 27512/74 (22) Filed 20 June 1974 (19)
 (31) Convention Application No. 388 850 (32) Filed 16 Aug. 1973 in
 (33) United States of America (US)
 (44) Complete Specification published 31 Dec. 1976
 (51) INT. CL.² B29C 3/00
 (52) Index at acceptance
 B5A 1K2A1B
 B8C 10E 14 15A 15D 15E1 6A
 B8P 21B 8J 9B1

(54) IMPROVEMENTS IN OR RELATING TO APPARATUS FOR MOULDING AND STORING FOODSTUFFS

(71) We, DART INDUSTRIES INC., a Corporation organized and existing under the Laws of the State of Delaware, United States of America, of 8480 Beverly Boulevard, Los Angeles, California 90048, 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 concerns apparatus for the preparation and storage of foodstuffs and more particularly concerns the moulding and storing of food patties, i.e. wafer-like foodstuffs (for example hamburgers) in such manner as to optimize the use of freezer storage space as also to enable a controlled withdrawal of the stored product for use or service.

In many instances it is preferable or desirable to prepare food products in advance and to freeze or otherwise store same in anticipation of future use. In these circumstances the desired individual serving sizes are predetermined so that prior preparation and storage are fully consistent with the anticipated or desired end result or usage. Accordingly, for example, a meat product may be prepressed into hamburger patty form and is thereafter stored and frozen. Each patty is generally separated from an adjacent patty by a paper or similar sheet separator prior to being containerized and frozen. This prior technique does not contemplate the complete separation of each patty one from the other nor does it provide a means orderly to control the usage of product. Likewise, if the patty perchance is retained in its mould for freezing, removal of the patty from the mould thereof can present difficulties due to the allaround adherence of the product to that mould.

One object of this invention is to obviate or reduce the aforementioned problems and which also provides several additional ad-

vantages which will become apparent hereinafter.

According to this invention there is provided in combination a patty-press unit and modular container member adapted for the preparation and storage of a wafer-like moulded foodstuff and including a container member having an upstanding sidewall integrally extending from a substantially planar bottom wall, said sidewall further having a peripherally positioned flange at a point spaced from the bottom wall interconnection therewith, such flange extending initially outwardly and then downwardly and approximately parallel to said side wall to a terminus proximate the plane of said bottom wall; an open-ended mould member at least one open end of which has a size and shape approximating the size and shape of said container member bottom wall such that said mould member may be positioned in said container member yet spaced from the sidewall thereof, and a press member adapted to be positioned within said mould member and having a reinforced wall having a substantially planar surface of a size corresponding to the inside dimensions of said mould member and having a handle upstanding therefrom. In particular, the storage container and the patty mould are constructed for inter-engagement in such fashion that the moulded product as formed therein will be retained out of contact with the container sidewall. This minimizes the contact between container and product and therefore enables such product to be more easily removed from the container at the intended time of use.

Each container may be designed sealingly to engage a like container so that such form a sealed stack each contained patty being separate from the others. Thus, the product patties or the like are separately stored yet the individual storage modules integrate to form a single overall assembled container. This type of assembly retains the like product together and minimizes the elemental

number of separate pieces required in so doing (i.e. separate closures and containers).

Furthermore, retention of product in this separable stacked fashion assures controlled usage. Therefore, the oldest stored product may be removed from containers at one end of the stack while the newest or freshest product is accumulated in the stack at the other end thereof. This type of control will assure minimization of spoilage due to over retention and aging of foodstuff.

Accordingly, in a preferred embodiment of the invention, there are provided relatively small storage containers capable of interengagement one with the other. Additionally, the product may be moulded in such containers in a fashion that maintains the product out of contact with the container sidewall.

In order that the invention may be more readily understood one embodiment of the invention will now be described by way of example and with reference to the accompanying drawings in which:—

Figure 1 is an exploded side elevational view of a press, mould ring and storage container as well as foodstuff that is to be formed and stored thereby;

Figure 2 is an interrelated or assembled side elevational view of the elements shown in Figure 1 partially broken away and sectioned along line 2—2 of Figure 1; and

Figure 3 is a partial cross-sectional side elevational view of a plurality of storage containers like those of Figures 1 and 2, illustrating the typical interengagement between such as well as a closure for the top-most container in the stack.

Although usage of the invention is intended for mouldable meat product, for example, hamburger it must be stressed that it is obviously not restricted thereto. Accordingly, Figures 1 and 2 illustrate the interrelationship between the various components which include a container member 10, an open-ended mould member 12, and a press member 14.

The storage container member 10 includes an upstanding sidewall 16 that is integrally formed with, and extends from, a substantially planar imperforate bottom wall 18 (Figure 2). Intermediate the bottom wall 18 and the terminus 20 of the sidewall there is formed an integral peripherally extending flange 22. This flange is basically fashioned by a ledge 24 and a downwardly extending wall 26 that is spaced from sidewall 16, approximately parallels same and terminates at a point or in a plane proximate that of bottom wall 18. Accordingly, a sealing groove 28 is formed between the wall 26 and sidewall 16. Such groove, its function and purpose will be discussed in further detail hereinafter.

Figures 1 and 2 also depict a mouldable

foodstuff 30 in its premoulded and post-moulded forms respectively. Further, with continued reference to these Figures it can be seen that the open-ended mould member 12 is of a shape and size wherein the diameter of one end 32 of its wall 34 approximates the diameter of the container member bottom wall 18, such that upon placement in the container member 10, the mould member fits snugly into the container member at the junction of the container member side and bottom walls, 16 and 18 respectively.

The mould member 12 container member 10 arrangement, as above described, enables the formation of a foodstuff patty 30a that is positioned out of contact with the container side wall 16. In this respect it is to be noted that the space 36 is maintained between the open-ended mould member 12 and container sidewall 16. Thus, even though the container member 10 functions as a portion of the mould member, it is only the bottom wall 18 thereof that is so employed. This then further provides that the barest minimum of moulded product 30a contacts the interior surfaces of the container member. Such minimum contact of course assures the easier removal of that product at the time of use.

The wall 34 of open-ended mould member 12 is ideally of a length such that it will extend substantially above terminus 20 of container sidewall 16. This will enable the user to perfect a better control over all elements of the combination during the moulding function. Furthermore, it is preferred that a reinforcing bead or handle-like rim 38 be provided adjacent the upper edge 40 of the mould member. This lends additional support to this member 12 and also provides a means for better gripping such member.

A necessary third component to the effective utilization of this assembly is the press member 14. This member includes a substantially planar press wall 42 that is of a size and shape corresponding to the inside dimensions of open-ended mould member 12. Another or second integral upstanding wall 44 extends perpendicularly from the press wall 42. This second wall is bounded by a web portion 46 that completely surrounds same and extends transversely thereof. Likewise, wall 44 has an opening 48 provided therein which is shaped to accommodate a user's finger digits. The opening is also bounded by a transverse web 50 and is spaced from the top-most section of wall 44 so that a comfortable handle grip is formed thereby. Additionally, the press member may employ reinforcing ribs 52. The number, spacing and size of these ribs will, of course, be determined by the construction of the basic press member ele-

ments above described but it is preferable to minimize the number required.

From the foregoing, it should be apparent that the patty press combination described contemplates the use of the ultimate storage container member 10 in the moulding of the product. This, of course, negates any necessity of rehandling moulded foodstuff subsequent to its formation. However, due to the modular design of the instant container member, it is further contemplated as a part of this invention, that a similar moulded product 30a may be maintained in a unitary multicompartmented container 54 as illustrated by Figure 3 and as formed by interengaging the individual storage containers members 10 one with the other in a sealed stacked arrangement.

Thus, after the product or foodstuff 30 is moulded as at 30a in separate container members 10, such container members may be interconnected as shown. The noted interengagement or interconnection is effected by inserting the terminus 20 of the side wall 16 of one container member into the sealing groove 28 of another such container member. Accordingly the bottom wall of each intermediate container member so stacked, functions as the closure for the container member below it. In the shown stacked relationship of contain members 10 only one separate closure 56 is required. The noted closure 56 of course is employed to seal the uppermost container member 10 in the stack. Accordingly, a minimum number of elements are required in providing a maximum of segregated container compartments.

Although only two storage container members 10 and one closure 56 are shown in Figure 3, it should be apparent that many more such container members may be added to the stack, depending only upon the particular storage facility into which such stack is to be placed. It should also be pointed out that the container member construction, and in particular, the sealing groove 28 and mating sidewall terminal area 20 provide a hermetic seal for each container member 10. Furthermore, as is apparent from the various Figures in the preferred embodiment storage container members 10 are identical in size and shape.

WHAT WE CLAIM IS:—

1. In combination a patty-press unit and modular container member adapted for the preparation and storage of a wafer-like moulded foodstuff and including a container member having an upstanding sidewall integrally extending from a substantially planar bottom wall, said sidewall further having a peripherally positioned flange at a point spaced from the bottom wall interconnection therewith, such flange extending initially outwardly and then downwardly and approximately parallel to said sidewall to a terminus proximate the plane of said bottom wall; an open-ended mould member at least one open end of which has a size and shape approximating the size and shape of said container member bottom wall such that said mould member may be positioned in said container member yet spaced from the sidewall thereof, and a press member adapted to be positioned within said mould member and having a reinforced wall having a substantially planar surface of a size corresponding to the inside dimensions of said mould member and having a handle upstanding therefrom.

2. The combination according to Claim 1, wherein the container member sidewall and flange form a groove that is adapted sealingly to engage the upper extremity of said sidewall of a like container member and wherein the bottom wall thereof is adapted to form the closure for said like container.

3. The combination according to Claim 1 or 2 wherein the handle of said press member comprises a second wall extending transversely of, and perpendicularly to, said planar wall, said second wall being bounded by a web and including an opening for accommodation of the user's finger digits.

4. In combination a patty-press unit and modular container substantially as hereinbefore described with reference to, and as shown in, 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,
Agents for the Applicants.

ments above described but it is preferable to minimize the number required.

From the foregoing, it should be apparent that the patty press combination described contemplates the use of the ultimate storage container member 10 in the moulding of the product. This, of course, negates any necessity of rehandling moulded foodstuff subsequent to its formation. However, due to the modular design of the instant container member, it is further contemplated as a part of this invention, that a similar moulded product 30a may be maintained in a unitary multicompartmented container 54 as illustrated by Figure 3 and as formed by interengaging the individual storage containers members 10 one with the other in a sealed stacked arrangement.

Thus, after the product or foodstuff 30 is moulded as at 30a in separate container members 10, such container members may be interconnected as shown. The noted interengagement or interconnection is effected by inserting the terminus 20 of the side wall 16 of one container member into the sealing groove 28 of another such container member. Accordingly the bottom wall of each intermediate container member so stacked, functions as the closure for the container member below it. In the shown stacked relationship of container members 10 only one separate closure 56 is required. The noted closure 56 of course is employed to seal the uppermost container member 10 in the stack. Accordingly, a minimum number of elements are required in providing a maximum of segregated container compartments.

Although only two storage container members 10 and one closure 56 are shown in Figure 3, it should be apparent that many more such container members may be added to the stack, depending only upon the particular storage facility into which such stack is to be placed. It should also be pointed out that the container member construction, and in particular, the sealing groove 28 and mating sidewall terminal area 20 provide a hermetic seal for each container member 10. Furthermore, as is apparent from the various Figures in the preferred embodiment storage container members 10 are identical in size and shape.

WHAT WE CLAIM IS:—

1. In combination a patty-press unit and modular container member adapted for the preparation and storage of a wafer-like moulded foodstuff and including a container member having an upstanding sidewall integrally extending from a substantially planar bottom wall, said sidewall further having a peripherally positioned flange at a point spaced from the bottom wall interconnection therewith, such flange extending initially outwardly and then downwardly and approximately parallel to said sidewall to a terminus proximate the plane of said bottom wall; an open-ended mould member at least one open end of which has a size and shape approximating the size and shape of said container member bottom wall such that said mould member may be positioned in said container member yet spaced from the sidewall thereof, and a press member adapted to be positioned within said mould member and having a reinforced wall having a substantially planar surface of a size corresponding to the inside dimensions of said mould member and having a handle upstanding therefrom.

2. The combination according to Claim 1, wherein the container member sidewall and flange form a groove that is adapted sealingly to engage the upper extremity of said sidewall of a like container member and wherein the bottom wall thereof is adapted to form the closure for said like container.

3. The combination according to Claim 1 or 2 wherein the handle of said press member comprises a second wall extending transversely of, and perpendicularly to, said planar wall, said second wall being bounded by a web and including an opening for accommodation of the user's finger digits.

4. In combination a patty-press unit and modular container substantially as hereinbefore described with reference to, and as shown in, 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,
Agents for the Applicants.

