

June 6, 1944.

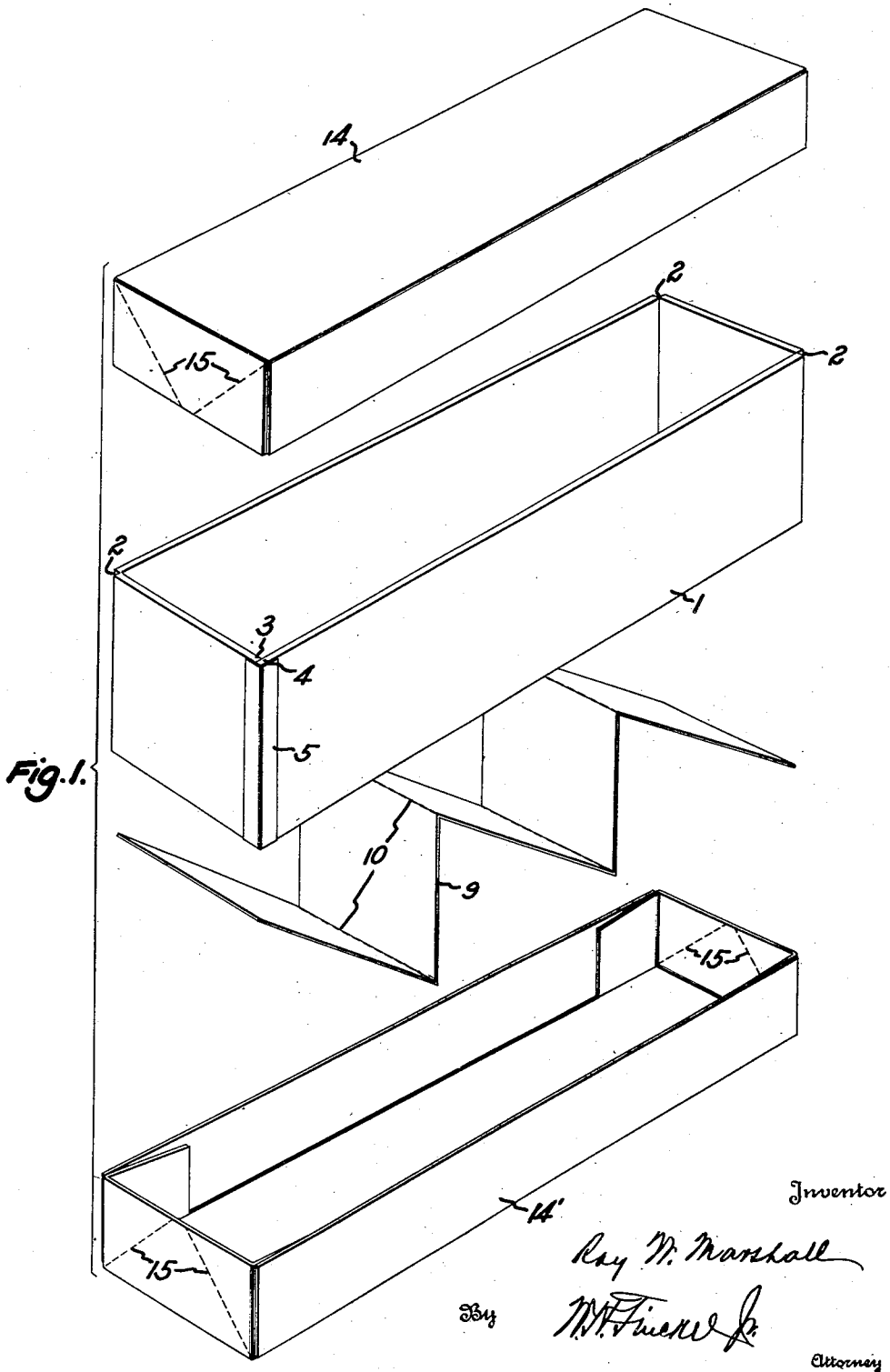
R. W. MARSHALL

2,350,912

METHOD AND MEANS FOR MOLDING AND PACKAGING MOLDABLE PRODUCTS

Filed Nov. 12, 1941

2 Sheets-Sheet 1



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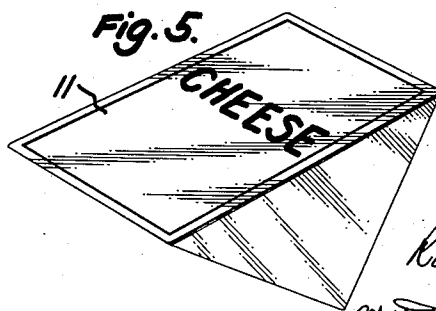
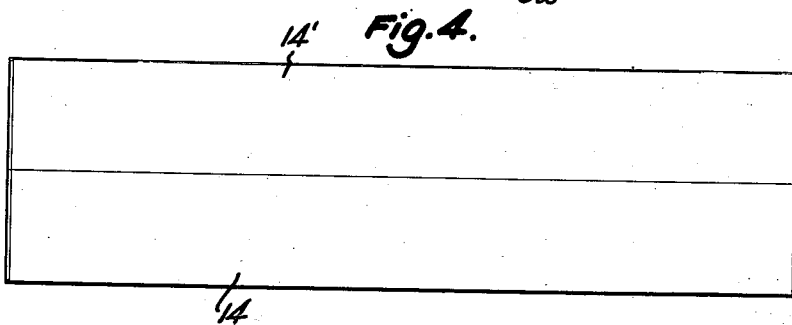
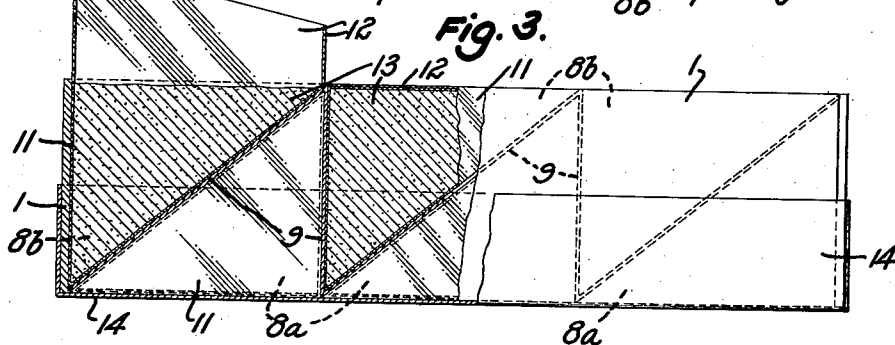
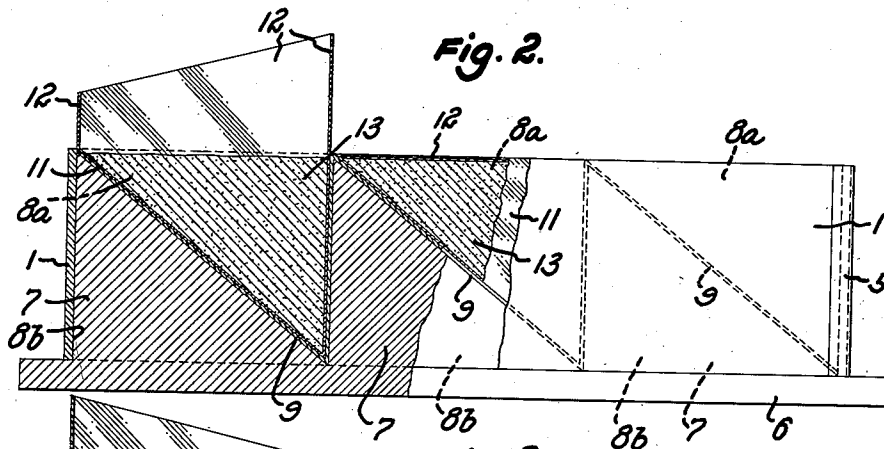
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METHOD AND MEANS FOR MOLDING AND PACKAGING MOLDABLE PRODUCTS

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2 Sheets-Sheet 2



Inventor

Ray N. Marshall,

By

W. H. Finckel Jr.

Attorney

UNITED STATES PATENT OFFICE

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METHOD AND MEANS FOR MOLDING AND
PACKAGING MOLDABLE PRODUCTS

Ray W. Marshall, Rittman, Ohio, assignor to The
Ohio Boxboard Company, Rittman, Ohio, a
corporation of Ohio

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16 Claims. (Cl. 99-178)

This invention relates to the molding and packaging of moldable products, especially comestibles such as cheese, and particularly process cheese.

One object of the invention is to provide a container which will serve not only as a means for accomplishing the molding of the product, but as the completed marketable package.

Another object is to provide for the molding, and thus the ultimate packaging for sale, of the product in a plurality of units normally completely filling the container and separately removable therefrom.

Thus, in the molding and packaging of process cheese, a container of economical size from the packer's viewpoint, but holding an amount, by weight, of cheese in excess of that purchased by the ordinary customer, may have its contents divided into separate components of a size, shape and weight attractive to the ordinary purchaser and, moreover, parts of the container or package, itself, may be made to serve as a means for molding the cheese, thus simplifying packing and eliminating repeated handling and resulting in a material saving to the manufacturer without any sacrifice of quality of the product.

Hence, the invention contemplates a novel practice and container for the packaging of moldable products, all as will be explained hereinafter more particularly and finally claimed.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated,

Fig. 1 is a perspective view showing, in disassembled relation, essential elements of the container for providing a package in accordance with the invention.

Fig. 2 is a fragmentary sectional side elevation of the mold forming parts of the container arranged upon a templet for performing the first stage of the molding operation.

Fig. 3 is a similar view showing container parts in arrangement for performing the second stage of the molding operation.

Fig. 4 is a side elevation of the completed package, and

Fig. 5 is a perspective view of one of the wedge-shaped separate components removed from the package.

Although the invention may be practiced in the packaging of moldable products other than comestibles, it is to such latter that it especially relates, particularly to the packaging of process cheese, as hereinbefore stated, and it will hereinafter be described, in this preferred adaptation,

though it is not to be construed as limited thereto.

In the molding operation, the collar member 1, which is preferably formed of a piece of paper board of appropriate length, width and thickness to give the required dimensions and rigidity, is bent upon scores or cuts 2 to desired rectangular, tubular form and its ends 3, 4 preferably abutted and joined and sealed by a strip of suitable adhesive tape 5.

The collar member thus erected is slipped upon a properly proportioned templet which preferably has a supporting flange or base 6 and a plurality of saw-tooth shaped extensions 7 which latter extend into the rectangular space within the collar and divide the same, in final result, into a plurality of wedge-shaped mold sections 8a and 8b, six, in all, being shown in the form illustrated.

Obviously, the sections 8b constituting the lower portion of the mold chamber are initially filled by the extensions 7 of the templet, thus presenting the sections 8a in condition for performing the first stage of the molding operation.

A division member, preferably comprising a strip 9 of paper board, is bent to zig-zag or saw-tooth shape upon score or perforation lines 10 appropriately spaced in conformity with the saw-tooth arrangement of the extensions 7 of the templet and is positioned within the mold chamber of the collar in contact with the exposed surfaces of these extensions. Each mold section is then fitted with a "Pliofilm" or other appropriate liner 11, preferably in the form of a bag having a filling opening provided with flap means 12 for closing and sealing it after the cheese 13 has been poured in, as indicated in Fig. 2.

After the mold sections 8a have been filled and the liners sealed, a cover member 14, which may be of any appropriate type but which is here shown as of the kind adapted for flat-folding by end-score lines 15, is telescopically engaged with the collar member 1 to embrace the same and form a closure for its end above the filled and sealed mold sections 8a, and then the collar with its filled mold sections is up-ended and the templet removed.

The division member 9 is now sufficiently rigidly located by the walls of the collar and by the wedge-shaped blocks or sections of cheese in the mold sections 8a to permit performance in the mold sections 8b of the second molding stage (Fig. 3) whereby additional wedge-shaped sections of cheese are molded and sealed in liner bags in the manner already described.

After completion of the second molding stage, a complementary closure member 14', preferably

the counterpart of and interchangeable with that already described, is telescopically engaged with the collar member 1 to complete the package, as illustrated in Fig. 4.

Obviously, when the package is opened by removing either of the cover members 14, 14', a plurality (three here) of individually wrapped and sealed wedge-shaped blocks or sections of cheese (Fig. 5) will be presented for removal, and the division member or strip 9 serves not only as a means for relatively supporting the sections but will aid in their removal.

It will be noted that the liners or bags 11 may be printed and otherwise attractively ornamented, such ornamentation preferably appearing upon those portions which are normally in contact with the division strip 9.

Of course, the package thus formed may be sold complete, or it may be opened by the purchaser and as many wedge-shaped sections removed as desired, or the dealer may remove the sections from the package and sell them individually. All of these practices are customary in the merchandising of similar sectionally packaged goods, especially cheeses.

Various changes and modifications are considered to be within the spirit of the invention and the scope of the following claims.

What I claim is:

1. In the molding of moldable products in a plurality of individual components constituting the full mold contents, the steps of producing a mold having side walls and divided into a plurality of individual component compartments facing in opposite directions, temporarily filling certain of said compartments then constituting the lower portion of said mold with means removable therefrom, filling with the moldable product the upper compartments defined by said removable means, applying to said mold a closure member closing the compartments filled with the moldable product, up-ending the mold and removing the removable means therefrom to present the remaining compartments for filling, and filling said remaining compartments with the moldable product.

2. In the molding and packaging of moldable products in a plurality of individual components constituting the full package contents, the steps of producing a mold having side walls and divided into a plurality of individual component compartments facing in opposite directions, temporarily filling certain of said compartments then constituting the lower portion of the mold with means removable therefrom, providing each of the thus defined upper compartments with a liner, filling each of said upper compartments within its said liner with the moldable product, closing said liners upon the product thus molded, applying, to said mold, closure means closing the compartments thereof filled with the moldable product, up-ending the mold and removing the removable means therefrom to present the remaining compartments for filling, applying liners to and filling said remaining compartments with the moldable product, and closing the last named liners upon the product thus molded.

3. In the molding and packaging of moldable products in a plurality of individual components constituting the full package contents, the steps of producing a mold having side walls and means dividing the mold into an upper and a lower plurality of individual wedge-shaped complementary compartments, filling each of said compartments at opposite faces of said dividing means

with the moldable product, said compartments in the aggregate constituting the full capacity of the mold, and applying, to said mold, closure means closing the filled compartments thereof to complete the package.

4. Means for molding and packaging moldable products, comprising package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber and ultimately of the package, a strip bent to zig-zag shape and adapted to fit longitudinally within said collar member and serving to divide the mold chamber into a plurality of individual upper and lower component compartments, and means cooperating with the collar member to close the open ends thereof.

5. Means for molding and packaging moldable products, comprising package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber, a strip bent to zig-zag form and adapted to fit longitudinally within said collar member and serving to divide the mold chamber into a plurality of individual upper and lower component compartments, and closure means telescopically embracing the collar member and closing the compartments therein for completing the package.

6. Means for molding and packaging moldable products, comprising package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber, a strip bent to zig-zag form and adapted to fit longitudinally within the collar member and serving to divide the mold chamber into a plurality of individual upper and lower wedge-shaped compartments constituting in the aggregate the volume of the package, and means cooperating with the collar member to close the open ends thereof.

7. A container, comprising a collar providing in rectangular form the side walls of the container, means cooperating with said collar and providing closures for the open ends thereof, and separator strip means bent to zig-zag form and arranged longitudinally of and dividing the space within the collar and closure means into a plurality of upper and lower substantially wedge-shaped complementary compartments.

8. A container for molded products, comprising a collar providing in rectangular form the side walls of the container, means telescopically embracing said collar and providing closures for the open ends thereof, a separator strip bent to zig-zag form and arranged longitudinally of and dividing the space within the collar into a plurality of upper and lower substantially wedge-shaped complementary nesting compartments, and a liner for each compartment, said liners with the product contained therein providing individual packages removable separately from said container.

9. Means for molding cheese and other moldable comestible products, comprising package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber and ultimately of the package, a strip bent to zig-zag shape and adapted to fit longitudinally within said collar member and serving to divide the mold chamber into a plurality of individual upper and lower component compartments, and means cooperating with the collar member to close the open ends thereof.

10. Means for molding and packaging cheese and other moldable comestible products, compris-

ing package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber, a strip bent to zig-zag form and adapted to fit longitudinally within said collar member and serving to divide the mold chamber into a plurality of individual upper and lower component compartments, and closure means telescopically embracing the collar member and closing the compartments therein for completing the package.

11. Means for molding and packaging cheese and other moldable comestible products, comprising package parts serving as a mold and including a collar member providing in rectangular form the side walls of the mold chamber, a strip bent to zig-zag form and adapted to fit within the collar member longitudinally thereof and dividing the mold chamber into a plurality of individual upper and lower wedge-shaped compartments constituting the aggregate volume of the package, and means cooperating with the collar member to close the open ends thereof.

12. A cheese and other moldable comestible product container, comprising a collar providing in rectangular form the side walls of the container, cover means cooperating with said collar and providing closures for the open ends thereof, and separator strip means bent to zig-zag form and arranged longitudinally of and dividing the space within the collar and closure means into a plurality of upper and lower substantially wedge-shaped complemental compartments.

13. A cheese and other moldable comestible product container, comprising a collar providing in rectangular form the side walls of the container, means telescopically embracing said collar and providing closures for the open ends thereof, a separator strip bent to zig-zag form and arranged longitudinally of and dividing the space within the collar into a plurality of upper and lower substantially wedge-shaped complemental nesting compartments, and a liner for each compartment, said liners with a product contained therein providing individual packages separately removable from the container.

14. In the molding of cheese and other moldable comestibles, in a plurality of individual components constituting the full mold contents, the steps of producing a mold having side walls and

divided into a plurality of individual component compartments facing in opposite directions, temporarily filling certain of said compartments then constituting the lower portion of said mold with means removable therefrom, filling with the product to be molded the upper compartments defined by said removable means, applying to said mold a closure member closing the compartments filled with the product, up-ending the mold and removing the removable means therefrom to present the remaining compartments for filling, and filling said remaining compartments.

15. In the molding and packaging of cheese and other moldable comestibles, in a plurality of individual components constituting the full package contents, the steps of producing a mold having side walls and divided into a plurality of individual component compartments facing in opposite directions, temporarily filling certain of said compartments then constituting the lower portion of the mold with means removable therefrom, providing each of the thus defined upper compartments with a liner, filling each of said upper compartments within its liner with the product to be molded, closing said liners upon the product thus molded, applying, to said mold, closure means closing the compartments thereof filled with the product, up-ending the mold and removing the removable means therefrom to present the remaining compartments for filling, applying liners to and filling said remaining compartments with the product, and closing the last named liners upon the product thus molded.

16. In the molding and packaging of cheese and other moldable comestibles, in a plurality of individual components constituting the full package contents, the steps of producing a mold having side walls and means dividing the mold into an upper and a lower plurality of individual compartments complemental to each other and of wedge shape, filling each of said compartments at opposite sides of said dividing means with the product to be molded, said compartments in the aggregate constituting the full capacity of the mold, and applying, to said mold, closure means closing the filled compartments thereof to complete the package.

RAY W. MARSHALL.