Aug. 28, 1962 T. F. BRENNAN 3,051,580

METHOD OF PACKAGING FOOD

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Fig. 1

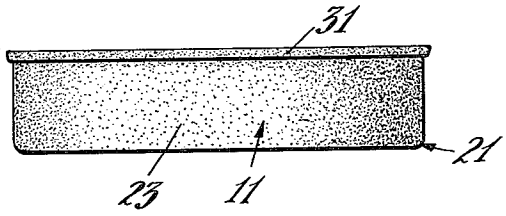


Fig. 2

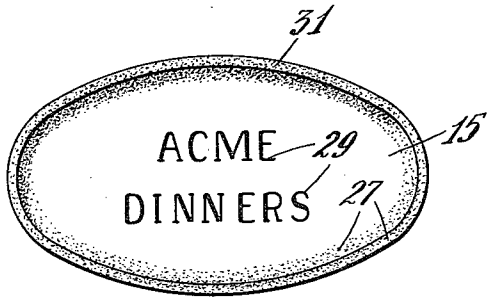


Fig. 3

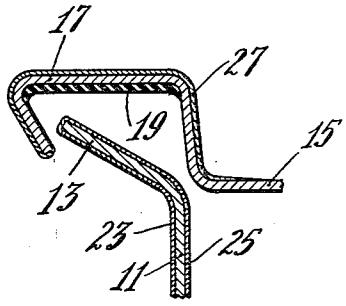


Fig. 4

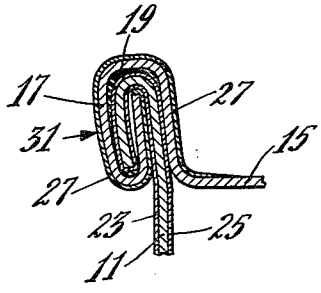
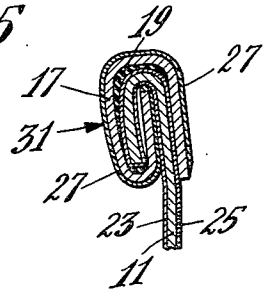


Fig. 5



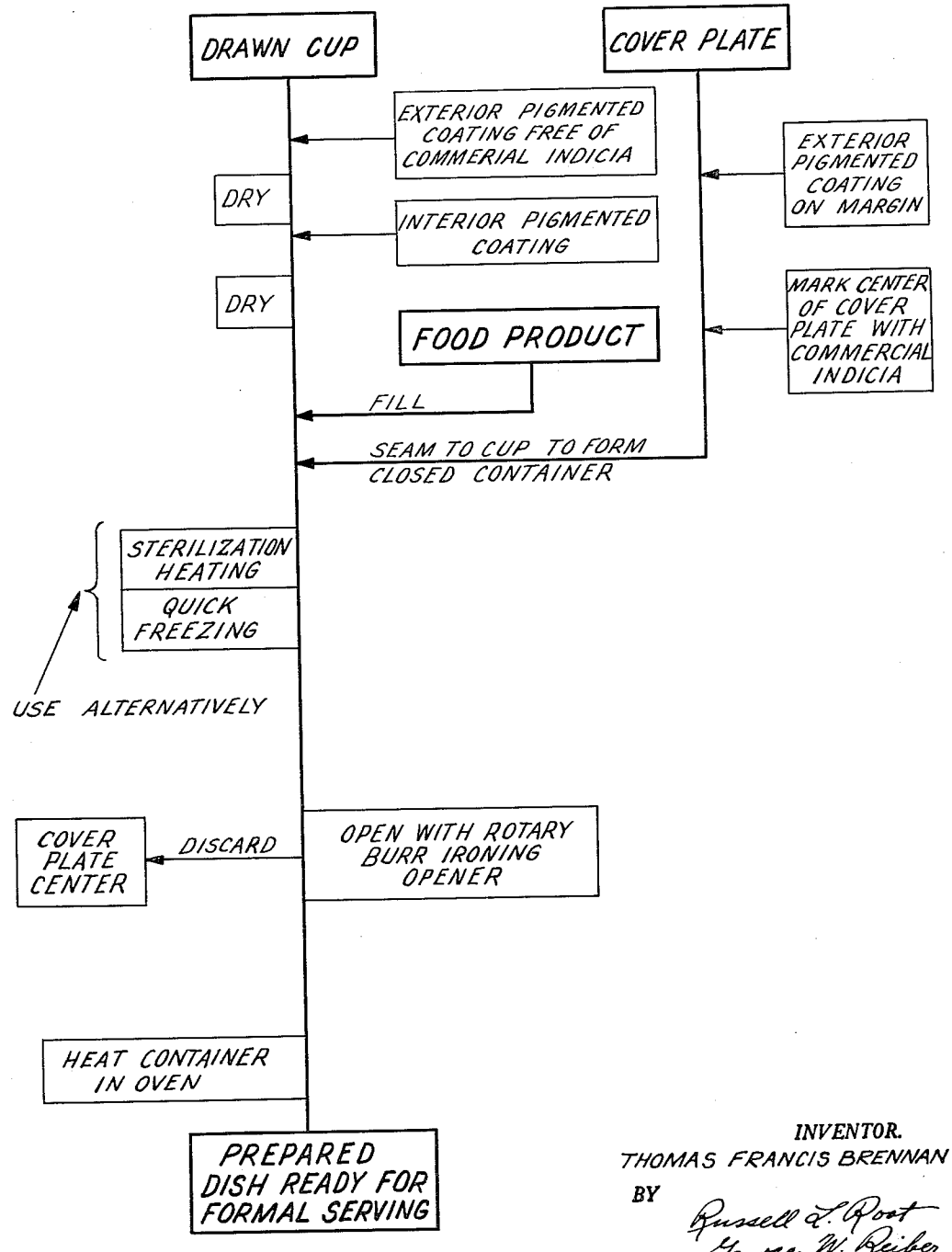
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Fig. 6



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METHOD OF PACKAGING FOOD

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3 Claims. (Cl. 99—171)

This invention relates to food preparation and service and especially to the packaging of food in such manner that the package will be not only commercially practical and economical, but will also be of such nature that it can be presented as the serving dish at table during a meal of moderate formality without detracting from the appearance of the table setting.

Heretofore foods of various sorts, especially frozen foods, have been packaged in low-cost containers such as embossed aluminum sheets, which serve as the container for preparatory treatment of the food, as by oven heating, and thereafter are intended to be used as plates from which the food is eaten. Due to their appearance, of course, such containers are only suitable for meals of the most informal sort and have no general applicability.

According to the present invention a method has been devised whereby a container whose cost is not significantly in excess of normal tinplate containers can be adapted to direct service of the contents under conditions of moderate formality by treating the container in a manner to simulate conventional ovenware of ceramic or enameled cast iron type, commonly in use as table service ware as well.

The foregoing is achieved primarily by employing a drawn sheet metal cup having a substantial radius between the base and side wall so that the thickness and nature of the wall material is not too readily apparent, and coating the same with a heat resistant, decorative coating material inside and out, pigmented to give the surface appearance of the said ovenware.

Additional features and advantages will appear as the description proceeds.

For purposes of illustration and explanation, the invention is shown in detail in its preferred form in the accompanying drawings, wherein:

FIG. 1 is a front elevation of a container according to the present invention.

FIG. 2 is a top view of the device shown in FIG. 1.

FIG. 3 is a fragmentary sectional view of the device of FIGS. 1 and 2 prior to attachment of the top thereto.

FIG. 4 is a view similar to FIG. 3 but showing the parts after the top is seamed in place.

FIG. 5 is a view similar to FIGS. 3 and 4 but showing the parts after the container has been opened and the central portion of the cover member removed, and

FIG. 6 is a flow sheet of the process aspect of the present invention.

Referring to the drawings, the invention is carried out in a preferred form by providing a can made up of sheet metal such as tinplate and consisting of a cup or body **11**, preferably formed by drawing, having the usual flange **13** for cooperation with a closure in the nature of a sheet metal cover plate **15**. The cover plate **15** has a formed rim **17** designed to cooperate with the flange **13** in the formation of a conventional double seam when the container is closed. The rim **17** preferably has its body-receiving groove prepared by placing a deposit of a suitable seam compound **19** therein to insure a tight seal when the seaming operation is performed. To this point the container as described is a conventional sheet metal container in current use.

The cup **11** to be used is preferably selected so as to have a fairly substantial radius **21** between the base and

the side wall for a purpose which will hereinafter appear. This cup is provided with an exterior layer of coating material **23** which is pigmented to give an attractive exterior decorative finish, and which when dried will form an opaque film tough enough to be resistant to flexing and scratching in ordinary handling, and which when completely set and cured will resist ordinary cooking oven heat without physical change or discoloration. Preferably the colors used are pastel or slightly grayed decorator tones simulating closely the glaze or enamel colors found on ceramic or cast iron ovenware.

The coating **23** serves as the sole decorative treatment of the exterior of the cup **11**, except for possible incidental decorative accents and, when completed, the exterior of the cup is entirely free of any printing, lithographing, or other marking of a commercial nature.

The interior of the cup is provided with a coating **25** and dried. This coating is in most respects similar to the coating **23**, but since this coating will be in contact with a food product it must of course also be non-toxic, taste-free and odor-free. In the preferred form, however, both coatings will embody these features. The pigmentation of coating **25** is selected to simulate the interior glaze or enamel of ceramic or cast iron ovenware, and in most instances will have either the same color as the exterior coating **23**, or will be a white coating, preferably slightly grayed.

Turning now to the top or cover plate **15** it will be noted from FIGS. 2 and 3 that the margin including the formed rim **15** is provided with a coating **27** which has precisely the properties of the coating **23**, and in the preferred form will be identical in color therewith, although a suitable harmonizing color of contrasting hue may be used if desired. The central portion of the cover plate **15** may be treated in any way desired, i.e. either left uncoated, have the coating **27** extended to cover the same, reserved for receipt of a pasted label, and the like. In the form of the invention presently preferred, the central portion of the cover plate **15** will have thereon indicia such as lettering, pictures, or the like as indicated generally by numeral **29** in FIG. 2, designed to convey the necessary commercial information and supply the customary advertising and sales values which would be needed for a retail sales package.

When the container is prepared as heretofore described, the cup **11** is filled with any appropriate food product, for example a precooked main meat dish such as a meat pie or stew, or any entire precooked dinner course of the type suited to a unitary casserole serving. Thereupon the cover plate **15** is set in place and the margin **17** thereof in cooperation with the flange **13** of the cup is seamed in the conventional manner to form a tightly sealed double seam **31** in the conventional way. The filled container may be heated to sterilizing temperatures either before or after seaming, depending upon the type of food product filled into it, or instead may be exposed to very low temperatures after sealing for quick freezing if frozen storage of the food is intended. The device described thus serves as a durable, low cost storage and sales package in the cost range of the ordinary tinplate container in common usage, and provides adequate advertising and selling information via its marked top if desired.

The package described, after being purchased in the store, will be in condition for home storage and immediate serving readiness. When the purchaser desires to make use of the package he merely places the same on a suitable rotary burr-ironing can opener of the type in common use. One well-known opener which proves effective for this purpose embodies a rotary cutter wheel working in opposition to a knurled, toothed, or otherwise friction-provided driving wheel which engages under the seam adjacent the wall of the can and progresses the can

around as the cutter wheel cuts the top directly adjacent the seam. As the side of the wheel rides past the freshly cut edge it forces it down along the can wall and irons it free of burrs to produce a result as seen in FIG. 5, and when the central portion of the top is cut completely free it is removed and discarded, carrying with it all the printing and/or commercial indicia which was applied to the package.

The resulting container bears a striking resemblance to ovenware or casserole dishes of either the ceramic or enameled cast iron variety popularly used for relatively formal table service, since the colored coatings on interior and exterior simulate quite exactly the surface appearance of such vessels, and the double seam bead **31** (also colored like the walls) now forms a rolled upper edge for the side wall of cup **11** and this, together with the bottom corner radius **21**, guards against the thin wall, sheet metal appearance which might have a tendency to counteract the effect of the carefully chosen coating colors. As a result the similarity in appearance of the container to the ovenware commonly used in table service is so striking that the opened package may be heated in the oven to use temperature and placed directly on the dinner table without the need for transferring the food from the purchase package to other dishes.

From the foregoing it can be seen that I have devised a novel container, package, and method, whereby a commercial container of competitive price can be made to function also as table service ware under moderately formal circumstances with a marked increase in convenience to the user.

While in order to comply with the statute the invention is described in language which is rather specific as to structural features and arrangements, it is to be understood that the invention is not limited to the specific details shown, but that the means and method herein disclosed comprises the preferred of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the scope of the language employed in the appended claims.

I claim:

1. The method of providing and using a food packaging container suitable not only for economical storage and merchandising, but also for convenient refined table service of contained food, which comprises draw forming a sheet metal cup having a bottom integrally connected by a smooth radius to a side wall; press-forming a sheet metal cover shaped at its margin to receive the upper margin and edge of said side wall and to be double seamed thereto; applying to the outer surface of said side wall and radius and to the upper surface of said cover in the double seam margin area a pigmented opaque coating which is resistant to flexing, to scratching and to cooking oven heat, while maintaining the side wall free of commercial marks and indicia; causing said coating to harden and set to a tough decorative layer; therafter double seaming said cover to the upper margin of said side wall, after the cup is filled with food; cutting out the central portion of the cover closely adjacent the double seam; and smoothing the resulting burr at the inside of the double seam to provide a container having the appearance of conventional food-serving oven ware.

2. A process according to claim 1 which includes the step of applying lithographed commercial information to the upper surface of the lid only within the area to be subsequently removed upon opening.

3. A process according to claim 1 which also includes applying to the entire inner surface of said cup a pigmented opaque coating which is resistant to scratching, flexing and cooking oven heat, and which is non-toxic, odorless and tasteless.

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