

March 3, 1959

G. A. MOORE

2,875,563

METHOD OF SEALING CLOSURE TO CONTAINER

Filed July 3, 1956

FIG. 1

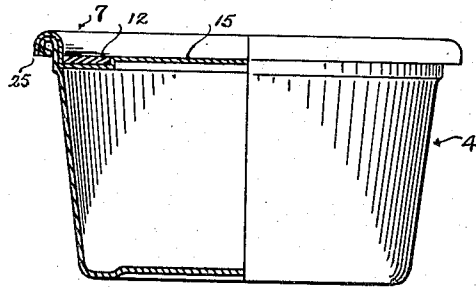


FIG. 6

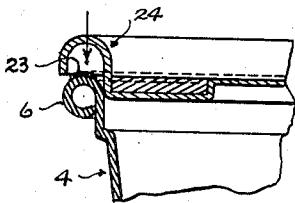


FIG. 3

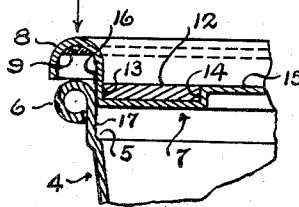


FIG. 5



FIG. 4

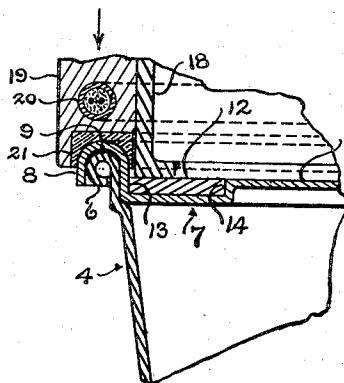


FIG. 7

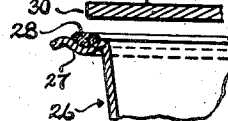


FIG. 2

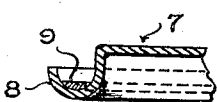
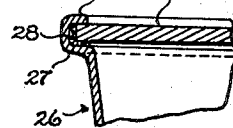


FIG. 8



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2,875,563

METHOD OF SEALING CLOSURE TO CONTAINER

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Application July 3, 1956, Serial No. 595,715

10 Claims. (Cl. 53—39)

This invention relates to a novel means and method of preparing a closure arrangement to seal containers to be liquid tight, more particularly it pertains to the sealing of closures upon the open mouth of conventional containers that are made of aluminum foil that is drawn in dies to form them in one piece, such as cups, dishes, trays and etc; and that nest together according to their kind when empty. The side wall of each of these particular containers is shaped by forming crinkles and pleated ridges in the aluminum foil in order to form the one piece body and the extent of this wall pleating of foil reaches its maximum on the upper portion of the wall periphery that forms the open mouth of the container. Hence, the rim surface around the mouth is interrupted with closely spaced ridges of raised metal that forms in the wall transverse of the top periphery surface plane of the particular container. These unruly ridges of pleated metal therefore make these containers exceptionally difficult to seal tightly with an attached closure.

Many attempts have previously been made to make lid closures of various types that are crimped on the container body, and by a top margin thereof overlapping a corresponding margin of the lid. However, the surface of the engaging lid is in contact with the top edges of the above mentioned ridges formed in the rim surface around the mouth of the container. The grooves or flutes between these ridges remain open passageways for closure leakage. In my prior U. S. Patent No. 2,746,669, issued May 22, 1956, and my copending application Serial No. 497,223, filed March 28, 1955, now U. S. Patent No. 2,787,410 issued April 2, 1957, a novel arrangement is disclosed for closing the open mouth of containers, and upon being slightly modified may be utilized for the purpose of carrying out the method of the present invention.

The novel method embodiment of this invention constitute means for an improvement on the invention of the prior patents with respect to the adaptation of the closure with containers of the above type described, and one of the prime objects herein is to provide a novel arrangement for a closure that will efficiently seal the above mentioned types of containers in liquid tight seam forming relationship.

Another object of the invention is to provide in a container of the above type, a novel arrangement of an applied adhesive material constituting an activator sealing gasket adhered between a top surface area around the rim of the container and a rim portion of the closure in effecting the seal of the container.

A further object of the invention is to provide an arrangement that provides an applied adhesive molded sealing gasket embodied in the rim of the closure member to co-act with the rim of the container for sealing purpose.

Still another object of the invention is to provide novel means and method for constructing and activating the adhesive gasket to positively seal the closure engaged

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upon the unruly ridged rim surface of the container in liquid tight seam forming relationship.

Other objects and novel features of the invention will appear more fully hereinafter from the following detailed description when considered in connection with the accompanying drawings, wherein two embodiments of the invention are illustrated. It is to be expressly understood, however, that the drawings are utilized for purposes of illustration only, and are not to be taken as a definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings, wherein similar reference characters refer to similar parts throughout the several views:

Fig. 1 is a side elevation partly in vertical cross section showing the container and closure in sealed relationship;

Fig. 2 is an enlarged fragmentary view of the closure showing the inverted rim portion thereof containing a molded portion of adhesive that constitutes the closure sealing gasket;

Fig. 3 is an enlarged fragmentary portion of closure and container in vertical cross section and showing the rim of the closure in registering engagement above the rim of container prior to the closing thereof;

Fig. 4 is an enlarged fragmentary view in vertical cross section showing the seated closure upon the container and fragmentary portions of apparatus that may be used to seal the closure to the container;

Fig. 5 is a fragmentary view in side elevation of the ridged wall surface of the container body and showing a portion of the adhesive sealing gasket and wall of the closure rim in cross section that is upon the top of the body wall;

Fig. 6 is an enlarged fragmentary portion of closure and container in vertical cross section and showing the adhesive sealing gasket as applied upon the rim of the container;

Fig. 7 is a view showing a fragmentary portion of a modified type of rim on a container of the above type, and further showing the adhesive sealing gasket as applied thereon and in registering position with a closure forming flat disc that may be used to seat upon the sealing gasket, and

Fig. 8 is a fragmentary view in vertical cross section of the modified closure completed to seal the container.

The present invention is primarily directed to a means and method of preparing the closure rim and the rim pleated surface of the container to be sealed, with an adhesive sealing gasket that is premolded to form upon the rim in order to provide a solid body of adhesive material for contact upon the coincident portion of grooves and crevices formed in the aluminum metal that extend over the top of the container rim or flange periphery. The closure structure used in the illustrations is basically similar to the portable closure disclosed in my above mentioned prior patents. The rim shape contour of the closure structure is coincident with the rim shape structure of the container. Upon inserting the closure into the mouth of the container, the dry adhesive activator gasket formed in the rim of the closure fits upon the ridged rim of the container. Regulated heat is applied upon the rim portion of the closure to activate the adhesive gasket so that the adhesive will spread to form a solid fillet of sealing material between the downwardly pressed closure rim wall portion and rim of the container thereby effecting a substantially hermetic seal of the container.

The present invention further contemplates certain particular advantages in providing an alternative sealing arrangement whereby, the rim of the container is adapted to embody the dry adhesive sealing gasket material. The container sealing efficiency as a result of this arrangement

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being similar to the closure rim sealing gasket arrangement according to the method carried out by the invention.

Referring more particularly to Figs. 3 and 4, the container 4 shows one type of conventional rim structure that is selected to illustrate the invention and the container 5 illustrated represents the aluminum foil made container hereinbefore described, the ridges of pleats and flutes formed in the metal not being shown except in Fig. 5. It is contemplated, however, that containers and closures made of other materials may be adapted with the same embodiment of sealing arrangement disclosed by this invention. This particular conventional container 4 is provided with a body wall shoulder 5 and a curled top rim 6 around the periphery of the open mouth to stiffen the body wall thereof. The closure 7 shown in Fig. 2 shows the inverted U-shape rim portion 8 thereof containing a portion of dry adhesive 9 that has been initially heated to render it in fluid condition into the continuous rim periphery of the closure and thereby adhere to the interior surface of the coincident wall portion 8 thereof. The depth of the molded form of adhesive 9 in vertical cross section is greater than the depth of the projected ridges of spaced metal pleats extending upwardly across the rim 6 of the container. These ridges may project outwardly of the lower surface portions of the rim as much as one sixty-fourth of an inch. These projections of metal are illustrated by ridges 10 and grooves 11 shown in Fig. 5.

Now referring to Fig. 3, the closure 7 with its cast adhesive sealing gasket 9 is registered with the container 4 to be sealed. The closure 7 is provided with a rigid disc 12 having an outer edge periphery 13 and an inner edge periphery 14 covered by the transparent plastic web 8, the interior bottom surface of the disc 12 being covered by the plastic web and the exterior surface portion 15 of the plastic web being substantially coplanar in relationship with the exterior surface of disc 12. The upwardly extending wall portion 16 of the plastic web material of the closure is intended to fit snugly upon the up-right wall portion 17 of the container when inserting the closure into the open mouth of the container. The rigid disc portion of the closure being relied upon to register the rim 8 of the closure concentrically with the rim 6 of the container as shown in Fig. 3.

The rigid disc 12 of the closure is also relied upon to plant the closure 7 into the open mouth of the container 4 as shown in Fig. 4. A plunger part 18 of apparatus engages upon the exterior surface of disc 12 of the closure and upon downward movement of the plunger the closure 7 is inserted into the mouth of the container, the dry adhesive sealing gasket 9 contacting the peak of the ridges 10 (Fig. 5) on the rim 6 of the container. A sleeve 19 is fitted over the vertical exterior surface of plunger part 18. The sleeve part is provided with a calrod electrical heating element 20 embedded within the sleeve and the element having end terminals projecting outwardly of the sleeve (not shown) for connection with a source of electrical current through a transformer not to exceed substantially twelve volts. The bottom of the sleeve is provided with a ring 21 made of Teflon material and having a surface contour that is substantially coincident with the contour surface of rim portion 8 of the engaging closure 7. The heating element 20 is thermostatically controlled to regulate proper temperature of heat to be conducted through the plastic wall 8 of the closure for purpose of thermally activating the adhesive sealing gasket 9 within the closure rim. To this end, the sleeve 19 presses downwardly upon the rim of the closure and imparts heat to soften the adhesive gasket, the softening degrees of temperature required for the adhesive being less than the degrees of temperature that would be required to soften the plastic rim of the closure. The pressure and heat as applied upon the closure rim permits the adhesive gasket 9 to bury coincident portions of contacting ridges 10 of the container rim into its softened viscous body to form a solid fillet of sealing compound when cooled,

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and between the coincident surface engaging portions of the rims 6 and 8 thereby effectively sealing the closure 7 to the container 4 in liquid tight seam forming relationship as illustrated in Figs. 4 and 5. The adhesive gasket 9 when being activated, is spread to form the solid fillet within confined limits of the closure fitted rim 8 that forms a plastic pellicle over the upper half portion of rim 6 of the container, over which defined portion, the limits of the sealing fillet of material is intended to be substantially confined. The outer edge 13 of the rigid component 12 of the engaging closure 7 effects a concentric shape of the rim 6 of the container to correctly align with the rim 8 of the engaging closure that provides the sealing gasket 9.

The present invention contemplates another embodiment of means and method for providing an adhesive sealing gasket that may be applied directly upon a surface portion of the rim periphery of the container 4 as illustrated in Fig. 6. In this embodiment the rim 6 is provided with an extruded portion 23 of like adhesive while in viscous condition that is anchored upon the top surface of the rim 6. This particular top surface portion of the rim is treated with a de-greasing solution that cleanses the surface of fatty acids prior to the application thereupon of the sealing gasket form of adhesive. There are several well known solutions that may be used for this purpose. One such solution may be sodium hydroxide in warm water. These aluminum foil drawn one piece containers are easily cleansed and sterilized when intended to be used for packing eatable food-stuffs. In some instances, the rim surface of the container may be provided with a prime coating of thin material that will insure the adhesion necessary to anchor the applied sealing gasket 23 upon the rim 6. The resinous adhesive material is warmed to be of proper viscosity for being extruded upon the surface of rim 6 and continuously around its periphery. The relatively small amount of adhesive applied cools and solidifies almost instantly upon contact with the rim to form a relatively narrow band of filler material between ridges of metal, the band of adhesive having sufficient body to cover the peaked top of ridges as illustrated in Fig. 5. The adhesive may be formulated of various resinous materials such as polyethylene, vinyls, polystyrene treated, mylar or other resinous compounds that have thermoplastic properties. Hot-melt resinous adhesive may be applied to form the sealing gasket, and may be so formulated as to suit any required temperature range for activating the gasket for closure sealing purpose. These hot-melt adhesives when dry are 100% solids and may be plasticized to substantially hold a body shape when heated to become viscous. Hence, these gasket forming compounds are free of solvent, odorless and non-toxic and will cool to solid consistency almost instantaneously. The particular adhesive formulation for the container rim gasket should be suitably plasticized to have a substantially resilient body consistency that will not break during the course of normal handling of the containers to which the adhesive has been applied. The relatively narrow rim portion of applied body of adhesive 23 fills in between the multiple pleated ridges of metal that crosses the rim transverse of its periphery that defines the open mouth of the container. A similar closure 24 (Fig. 6) is registered into engagement with rim 6 of the container. The closure 24 upon being inserted into the mouth of the container closes over the pre-applied sealing gasket 23. Pressure and heat being applied downwardly upon the rim portion of the closure softens the adhesive gasket to form a solid fillet of constituted sealing compound when cooled, thereby sealing the closure to the container in the same manner as hereinbefore described for the closure rim embodiment of the sealing gasket 9 as illustrated in Figs. 2, 3, 4 and 5.

The container with a sealed closure is illustrated in Fig. 1. The sealing ring adhesive gasket is relatively small in body cross section to serve economy and be

embodied within the container closure structure so that heat of relatively low temperature is applied only to a limited surface area around the periphery of the closure rim that will quickly activate the gasket to form a solid fillet of sealing material that is confined in between limited portions of wall surfaces defined as being the rim of the container and rim of the closure. The sealed closure may be easily removed from the container by lifting the free skirt portion 25 of the closure rim to peel it loose from the adhesive gasket. This rim as hereinbefore described is preferably formed of transparent plastic material as disclosed in my prior U. S. Patents hereinbefore mentioned. However, the closure may be formed of any other suitable material that may be desired for carrying out the method of this invention. The plastic structure of the closure, however, provide features that improves the general utility of the particular type of container using this closure. The featured improvement distinguished over conventional closures used for closing paper and aluminum foil containers is clearly defined. Conventional closures in the category described do not seal these containers liquid tight. The method employed by this invention positively is capable of sealing them liquid tight in an efficient yet simple manner and solves the problem of trying to apply a closure having a substantially smooth surface upon the rim or flange of a container having an unruly irregular ridged surface as illustrated in Fig. 5. Conventional paper containers such as those used by the dairy industry are provided with a longitudinal body overlapped seam that forms a crevice across the rim of the container. The conventional closures used on these containers can not seal them liquid tight because of this crevice. The sealing gasket provided by this invention when applied to these containers or closures will seal them liquid tight in the manner illustrated in Figs. 1, 3 and 4.

The method of the present invention further contemplates another embodiment of the adhesive sealing gasket as applied upon the flange periphery of a conventional aluminum foil container illustrated in Fig. 7. The foil container 26 represents another type of conventional one piece container having a crinkled body with an outwardly extended flange 27 around the open mouth thereof. The face of the flange is formed with a dished shallow groove extending continuously around the periphery of the container. The adhesive sealing gasket 28 is applied into this shallow groove continuously around the periphery. A substantially rigid disc 29 is shown in a position above the closure sealing gasket in the container flange and about to be applied upon the gasket. The edge periphery 30 of the disc is concentrically aligned inwardly of the outer rim edge of the gasket 28. Just prior to placing the bottom surface of the disc adjacent its outer edge upon the gasket, radiant heat may be applied to the gasket to render it activated or heat may be applied to the under surface of the flange 27 for the same purpose. The disc 29 is then pushed downwardly into the softened adhesive and the flange 27 then crimped over the periphery of the disc as illustrated in Fig. 8. The body of the adhesive 28 constituting the gasket is re-shaped by the flange crimping operation to seal the container liquid tight. The raw edge 30 of the closure forming disc is covered completely with closure sealing compound, a portion of which forms a seating ledge for the disc. The body of adhesive in cross section is sufficient to form a solid fillet of sealing material between the metal ridged surface of the container flange and engaging surface portions of the disc. The container 26 is thus sealed in liquid tight seam forming relationship. The outer portion 31 of the crimped flange clamps the closure disc periphery in fixed relationship into and with the intermediately disposed body of adhesive constituting the sealing gasket.

It is to be particularly noted that aluminum foil made containers of the class described do not have a smooth flat surface around the periphery that defines the

open mouth thereof that can be coated with a film of material usually applied conventionally upon a smooth surface portion of other types of containers such as cartons for sealing purposes. A liberal film thickness in these conventional applications of adhesive material may be defined as being one mil inch thickness. Hence, the appreciable depth of the projected ridges of metal crossing the rim of these containers makes it impractical to apply any of these conventional methods for coating either the rim of these particular containers or the rim of the intended closure for sealing purpose.

While modifications of the invention have been illustrated and described, it will be understood, by those skilled in the art of making containers and closures, that various changes may be made therein without departing from the intent and purpose of this invention, reference therefore will be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. The method of preparing a portable closure with means to seal its periphery wall portion to a coincident periphery wall portion that defines the open mouth of a container when the closure is engaged over said mouth of the container, which comprises forming the closure of transparent plastic sheet material to have a lateral wall portion of said material encasing the bottom surface and transverse edges of a substantially rigid disc component part of the closure and providing said disc with a substantially central hole covered by the plastic sheet, forming the outer portion of said plastic sheet into and inverted U-shaped rim constituting an annular groove extending continuously around the periphery and outwardly of the outer edge periphery of said disc component, rendering a controlled portion of warm thermoplastic adhesive into the bottom of said annular groove portion of the closure and to extend continuously around its periphery, and cooling the adhesive to constitute a sealing gasket embodiment in the closure that is capable of being heat activated to seal the container with less heat applied to the adhesive than the heat that would be required to soften the plastic wall of the closure rim that supports the rendered adhesive that forms the sealing gasket.

2. The method of forming a portable closure to be embodied with a sealing gasket constituting a component part thereof and of sealing the closure to aluminum foil made containers of the class described, which comprises shape forming a sheet of transparent plastic material to cover the bottom surface and transverse edges of a substantially rigid disc provided with a substantially central opening covered by a portion of the shaped plastic sheet material, and shape forming an outer portion of said sheet material to form an inverted U-shaped annular rim extending outwardly of the covered outer edge periphery of said disc, facing up the open mouth of said annular rim and rendering into the bottom thereof a controlled portion of pre-heated thermoplastic adhesive to extend continuously around the defining rim periphery of the closure, cooling said rendered adhesive to become a dry solid free of solvent, with the body of dry adhesive adhered to the supporting wall of the closure rim, inserting said closure into the mouth of the container by pushing downwardly upon the top surface of said rigid disc component part of the closure, which rigid part brings the dry adhesive portion embodied in the closure rim in engagement with the coincident shaped rim periphery of the container to be sealed, and imparting heat and pressure upon the top of the plastic wall adhered with the underlying body of dry adhesive, the heat activating the adhesive to soften and form a closure sealing fillet within confines afforded by the plastic wall encasing portion of the closure rim over the aluminum rim portion of the container, said fillet of sealing material filling the space defined between limited areas of rim engaging surfaces transverse of the closure and container periphery.

3. The method of closing and sealing the open mouth

of a one piece container formed of aluminum foil, the surface of the rim structure of the container having multiple ridges of gathered foil, and of providing an embodied sealing gasket within the rim of a portable closure to engage over the rim structure of the open mouth of the container, which comprises directly a flow of heated viscous resinous adhesive material into an open annular channel provided in the rim structure of the closure coincident with the rim structure of the container to be closed and sealed, controlling the body of adhesive to be of a depth in cross section that is coincident with the depth of outwardly projected ridges formed transversely across the top of the rim periphery of the container, cooling the resinous adhesive to form within the closure a constituted sealing gasket to be activated for sealing the container, inserting the closure into the open mouth of the container and bringing the embodied adhesive gasket within the closure rim upon the top of said ridges of metal extending across the rim periphery of the aluminum container, and heating the rim of the closure to soften the embodied adhesive gasket while pressing the coincident wall portion of the closure rim downwardly upon the ridged surface of the container rim to render the adhesive gasket viscous by the heat conducted through the coincident wall portion of the closure, the adhesive filling in between the multiple ridges of metal extending across the surface of the container rim and forming a solid sealing fillet of material between engaging wall surface portions of the container and closure engaging rims.

4. The method of forming a portable closure to engage with a tapered body shaped container having an open mouth adapted to receive an insertion therein of said closure adapted to seal the container in liquid tight seam forming relationship, which comprises, forming a sheet of transparent plastic material to be of wall contour shape coincident with the contour shape of the rim structure defining the open mouth of the particular container, forming a central portion of the plastic sheet over a surface and outer edge of a rigid disc provided to reinforce the plastic wall and make the closure self-sustaining, forming the plastic wall portion covering said outer edge of the disc to extend outwardly at substantially right angles to the surface plane of said disc, the extended wall portion terminating in an inverted U-shaped contour to fit upon the coincident rim of the container when engaged therewith, the channel formed by said U-shape wall contour of the closure providing a mold to receive a portion of resinous material having thermoplastic properties, and casting said resinous material into said channel to constitute a sealing gasket self-embodied in the formed portable closure.

5. The method of closing the open top of an aluminum foil one piece container having its body wall and rim surface interrupted with formed crinkled and pleated ridges of metal foil, and of directing an initial flow of activator adhesive upon the top surface of said rim to form a sealing gasket to be used with a closure for sealing said container, which comprises applying a predetermined body of initially warmed viscous resinous adhesive upon a surface portion of the rim of the container and anchoring the adhesive into the crevices formed by said pleated ridges of metal, cooling the adhesive to form a dry activator sealing gasket extending in cross section outwardly of upwardly projecting portions of the metal ridges defining the rim of the container, placing a closure forming cover over the open mouth of the container and upon the sealing gasket, heating said gasket through the coincident wall portion engaging the surface of the gasket and rendering the adhesive gasket viscous to spread and form a closure sealing fillet of material between engaging marginal surfaces of container and closure structure rims, the co-acting effects of the activated adhesive gasket formed on the container and the gasket engaging coincident portion of the closure cover rim sealing the container in liquid tight seam forming relationship.

6. The method of providing a closure sealing gasket formed of resinous adhesive anchored upon the exterior of the rim structure of one piece containers made of aluminum foil, the container having its body wall and rim crinkled that forms crevices and projected ridges due to the shaping method employed in making the container, which comprises applying a thick and relatively narrow width continuous body of viscous activator adhesive upon the rim portion of the container and directing the viscous flow of adhesive into the crevices and substantially level over the peaked ridges of the aluminum foil caused by the crinkles, and cooling the applied adhesive to form a self-sustaining sealing gasket on the container rim capable of thermally sealing an engaging closure upon the open mouth thereof.

7. The method of sealing a portable closure to a container having an open mouth and a closed bottom end, which comprises applying a body portion of warm thermoplastic adhesive material upon the surface of the rim periphery of the container, thermally controlling the body of adhesive to be of a consistency less than free flowing, anchoring said body of adhesive to adhere upon the coincident surface portion of said rim in stable form to provide a sealing gasket embodied on the container for co-action with said portable closure when applied thereupon, fitting said closure over the open mouth of the container and substantially concentrically aligning the engagement of the closure rim upon the rim and adhesive gasket of the container, heat contacting the surface portion of the closure rim over the surface area coincident with the underlying surface of the adhesive gasket and pressing downwardly upon the coincident surface portion of the closure wall to soften the adhesive gasket to form a solid fillet of adhesive sealing material between a limited space area of said surface engaging portions of the closure and container rims.

8. The method of sealing a closure to a container formed in one piece of aluminum foil and having a crinkled body wall with a crinkled rim surface that defines the open mouth thereof, which comprises applying a body portion of warm thermoplastic adhesive upon a limited surface area of said rim extending continuously around its periphery, thermally controlling the temperature of heat of said adhesive to be of a consistency less than free flowing while applying it upon the metal ridged surface of said container rim thereby providing a closure sealing adhesive gasket extending in a relatively narrow ridged band continuously around the top surface of said rim, the applied adhesive gasket crossing over and in between the multiple crinkled transverse ridges of the aluminum foil rim structure of the container, applying a closure over said open mouth of the container and upon the applied closure sealing adhesive gasket, applying heat and pressure upon the wall portion of the closure that is in direct contact with the adhesive gasket and softening said adhesive gasket to spread and form a solid fillet within confines of the wall portion that defines the closure rim, said fillet of sealing material filling the space between the smooth surface portion of the wall of the closure rim and the ridged uneven surface portion of the rim of the container in liquid tight seam forming relationship.

9. The method of sealing a flat closure disc upon the open mouth of an aluminum foil one piece container having a flanged rim defining the open mouth thereof, which comprises forming a ring gasket of warm thermoplastic resinous adhesive upon the top surface of said flange of the container, cooling to solidify said adhesive to constitute an adhered sealing gasket embodied to the container that provides a solid ring of activable adhesive filling all crevices and ridges of metal foil upon which the ring of adhesive is anchored, placing a flat closure forming disc upon the ring gasket so that the edge of the disc registers inwardly of the outer periphery edge of the ring gasket, heat softening said ring to become viscous and

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pressing said disc downwardly into the viscous adhesive, crimping the outer portion of the flange periphery of the container upwardly and inwardly bringing the adhesive inwardly against the porous edge periphery of the disc and clamping the disc transversely thereof in permanent position upon a portion of said adhesive, the relationship of the edge of the closure disc pressed into said adhesive prior to said crimping of the flange causing the adhesive to shape in right angular form upon crimping said flange portion and forming a solid fillet of sealing material between coincident surfaces engaging with the adhesive gasket.

10. The method of making a portable closure forming cap and of applying said cap to a container to effect the hermetic sealing of said container, which comprises molding a disc of plastic sheet material and shaping a marginal portion around the periphery of said plastic disc to take the form of a substantially U-shape contour defining a rim cup groove to be dimensionally coincident with the open mouth of the container to be closed and sealed, shaping said groove to have two wall portions spaced apart

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substantially in parallel and projecting outwardly from its bottom end, offsetting said wall portions in transverse relationship and at substantially right angles to the inner spread wall portion of the disc, depositing a portion of viscous thermoplastic adhesive material into said U-shape groove to constitute a sealing gasket confined within the base of said rim, fitting said cap over and into said open mouth of the container, and subjecting said rim of the cap to heat and pressure upon the exterior surfaces of its grooved contour whereby said gasket within the groove becomes activated to effectively seal the container, the inner disposed wall portion of said contour providing means to anchor said cap upon the container and maintain said seal.

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