

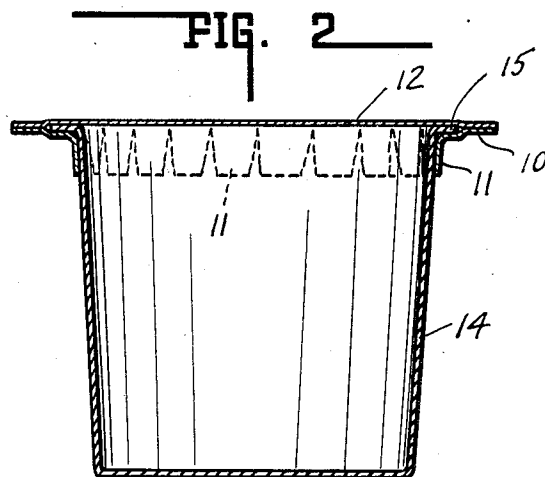
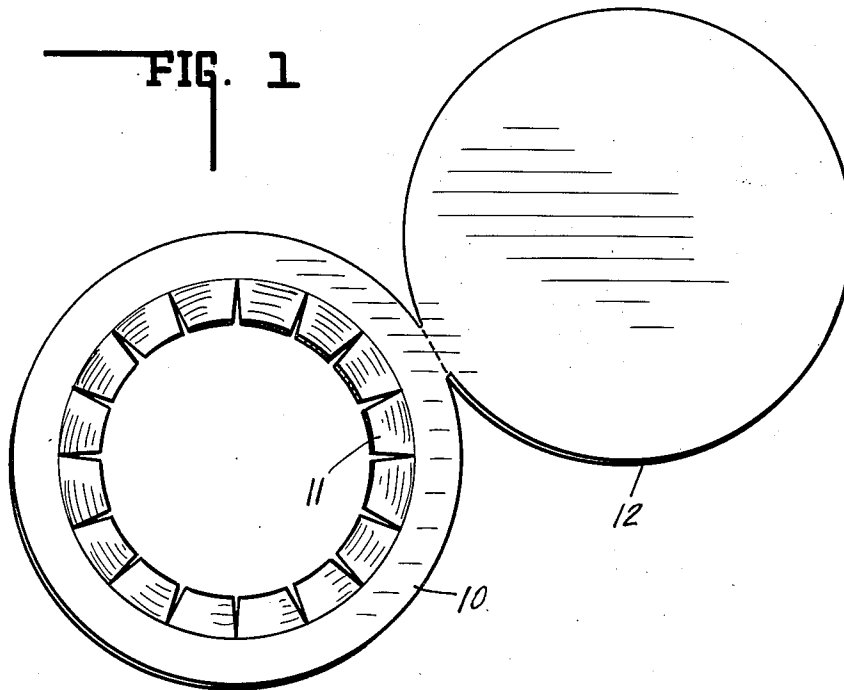
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CLOSURE FOR METALLIC FOIL CONTAINERS

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CLOSURE FOR METALLIC FOIL CONTAINERS

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1 Claim. (Cl. 229—43)

This invention relates generally to closures for containers, and more particularly to a closure device adapted to be applied to containers formed of aluminum or other metallic foil or of plastic, paper or glass materials.

It is conventional to package various products in aluminum or other metallic foil containers, but the most practical application of such containers is in the packaging of frozen goods. This is due to the fact that it is difficult to provide a closure for containers of this type which are airtight and provide a permanent seal for such containers. Consequently, preserved foods and fresh foods are not customarily packaged in aluminum or other metallic foil because no airtight closures have been available.

Accordingly, it is the principal object of this invention to provide a closure for an aluminum or other metallic foil container.

Still another object of this invention is to provide a closure for an aluminum or other metallic foil container which can be treated to provide an airtight seal for the container.

A further object of this invention is to provide a closure for an aluminum or other metallic foil container of such character that it is adapted to be utilized in machines for closing and sealing containers.

In accordance with this invention there is provided a closure for aluminum or other metallic foil containers comprising a rim adapted to fit under a flange formed on the container, and a cover hinged to the rim for movement into sealing relationship with the flange and rim, the rim and cover being formed of paper treated with a thermoplastic material which will melt and seal the cover to the rim upon the application of heat.

The full nature of the invention will be understood from the accompanying drawings and the following description and claim:

Fig. 1 is a top plan view of a rim and cover structure as provided in accordance with this invention.

Fig. 2 is a cross sectional view illustrating a container having applied thereto the rim and cover illustrated in Fig. 1.

Referring to the drawings, there is provided in accordance with this invention a closure for aluminum or other metallic foil containers comprising a rim portion 10, which may be formed into a disc having a plurality of inwardly disposed flaps 11, the purpose of which will become apparent from subsequent description. To a portion of the periphery of rim 10 there is integrally attached a cover 12 which is adapted to be folded over into contact with the rim 10 for sealing thereto.

The rim 10 and the cover 12 preferably consist of a paper product having a coating of a thermoplastic adhesive, such for example as any of the well known polyvinyl or polyethylene adhesive products. In fact, any thermoplastic adhesive material may be used so long as the application of heat will provide an adequate seal. The paper materials should have such a thickness that momentary application of heat will serve to cause adhesion between the rim 10 and the cover 12 when they are applied to a container.

Fig. 2 of the drawings illustrates a typical aluminum or other metallic foil container 14 which may be formed with an externally protruding flange 15. The closure

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member illustrated in Fig. 1 may be applied to containers such as 14 by superimposing the rim portion on the under side of flange 15 in such fashion that the tabs 11 of rim 10 hug the outside wall of container 14 and thereby center the rim with respect to the container. After a container is filled with a food product, cover 12 may be closed into intimate contact with rim 10, and a suitable circular heating device may be applied to the upper surface of cover 12 and the lower surface of rim 10, thereby to cause the adhesive coatings on rim 10 and cover 12 to adhere to one another and to a certain extent to the upper and lower surfaces of flange 15. In this manner an airtight seal is provided for the container 14.

It should be noted that the cover 12 is hinged to rim 10 for the purpose of providing self-alignment of the cover with respect to the rim. This feature of the invention adapts the closure for use in automatic machinery customarily used for packing and covering packaged goods.

While the rim portion 10 has been disclosed as having a plurality of inwardly disposed flaps 11, it will be readily understood that the rim portion may be manufactured without such flaps or tabs. In fact, it is found by experiment that in the case of aluminum containers, a better seal is obtainable between the upper and lower surfaces of flange 15 and the surfaces of the rim 10 and cover 12 when the flaps or tabs are omitted.

It should be understood that it is within the scope of this invention to manufacture the closure disclosed herein of transparent materials, for example, such as "cellophane" having thermoplastic adhesive materials coated thereon such for example as polyethylene. The closure may also consist of aluminum or other metallic foil, vinyl coated to provide an air and liquid tight seal. Still another modification of this invention comprises a bottom rim member 10 coated with a suitable thermoplastic adhesive material, together with a transparent cover also coated around its peripheral portion with a thermoplastic adhesive material. In all of these modifications the rim and cover may or may not be hinged together, depending upon the desires of the particular manufacturer.

The invention claimed is:

In combination, a foil container having an outwardly directed annular flange at its upper edge, a substantially flat annular rim having an internal diameter substantially equal to the external diameter of the container at its juncture with the flange and its external diameter greater than said flange to project beyond the latter, an adhesive substance applied to the entire upper surface of said rim, a substantially flat cover of substantially equal diameter with the external diameter of said rim superimposed upon said container and said rim, and the underface of said cover overlying said flange and rim having adhesive applied thereto, the upper surface of said rim being adhesively secured with the adjacent undersurface of said flange and the cover being adhesively secured to the adjacent upper surfaces of the said flange and rim, whereby the contents are hermetically sealed within the container.

References Cited in the file of this patent

UNITED STATES PATENTS

617,401	Kinnard	Jan. 10, 1899
1,633,197	Snyder	June 21, 1927
1,816,542	Mellin	July 28, 1931
1,851,981	Morris	Apr. 5, 1932
2,126,185	Friedl	Aug. 9, 1938
2,542,245	Gottesman	Feb. 20, 1951

FOREIGN PATENTS

958,491	France	Sept. 12, 1949
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