

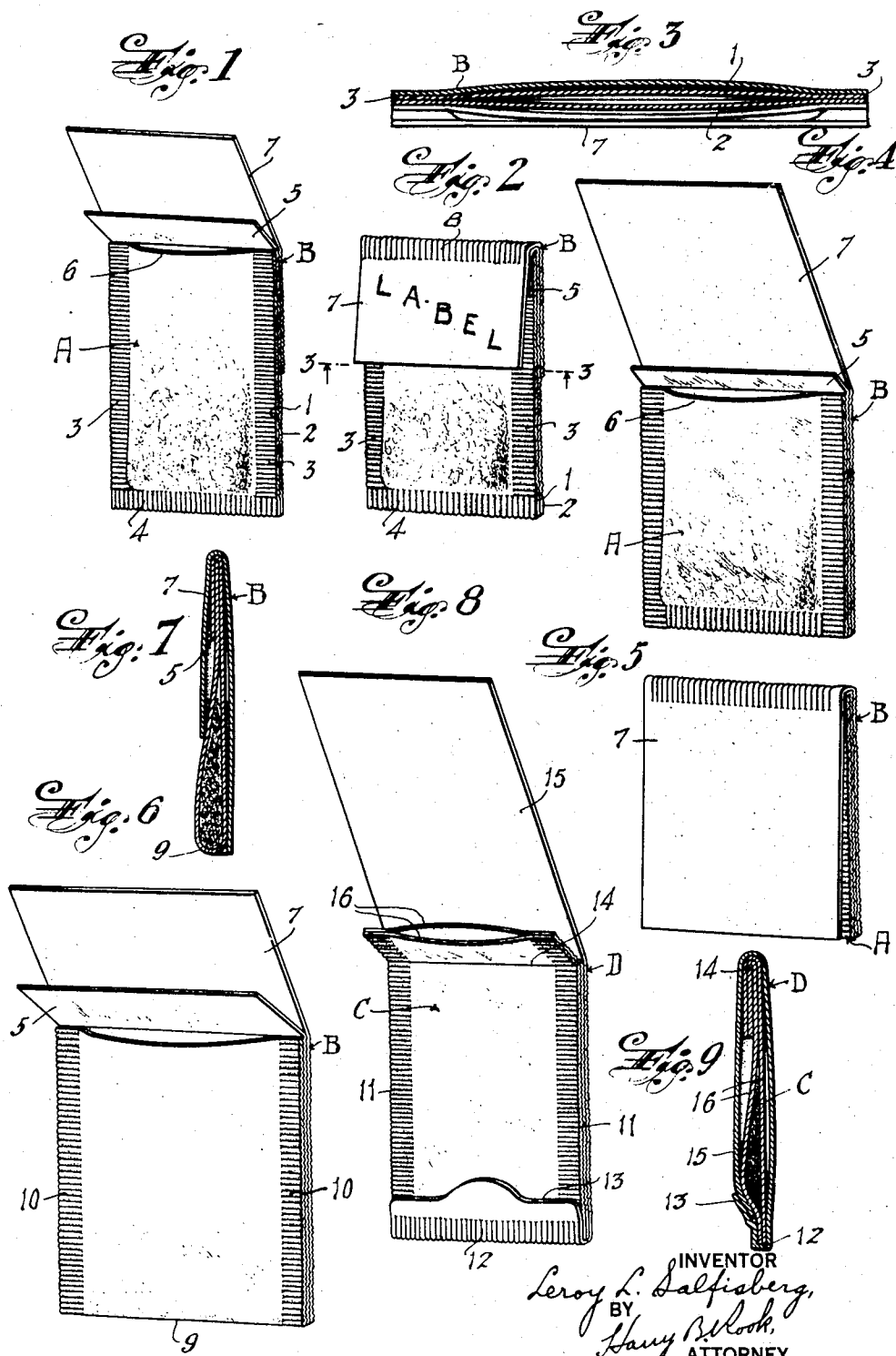
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METHOD OF MAKING PACKAGES

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METHOD OF MAKING PACKAGES

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This invention relates in general to packages that include bag-like containers having opposed walls of thin flexible material, for example "Cellophane," "Pliofilm," metal foil and the like, sealed together along spaced zones to form a commodity receiving compartment between them and a mouth for said compartment between two juxtaposed marginal portions of said walls.

More particularly the invention contemplates such a package having a cover applied thereto for both protecting the thin walled bag-like container and serving as a label.

One object of the invention is to provide a package of this general character which shall include a novel and improved construction, combination and arrangement of a bag-like container and a cover, whereby the container can be firmly sealed at its mouth and the sealed mouth shall be protected and reenforced by the cover.

Another object is to provide a novel and improved method of making such a package whereby the label may be applied to the bag-like container simultaneously with certain of the sealing operations incident to forming the container.

Other objects, advantages and results will be brought out by the following description in conjunction with the accompanying drawing in which

Figure 1 is a perspective view of a package embodying my invention, showing the package in open or unsealed condition.

Figure 2 is a similar view showing the package sealed.

Figure 3 is an enlarged horizontal sectional view on the line 3—3 of Figure 2.

Figure 4 is a view similar to Figure 1 showing a modification of the invention.

Figure 5 is a perspective view showing the package of Figure 4 closed and sealed.

Figure 6 is a perspective view showing another modification of the package with the package in unsealed condition.

Figure 7 is a transverse vertical sectional view through the package shown in Figure 6, but with the package filled and sealed.

Figure 8 is a view similar to Figure 6 showing another modified form of package, and

Figure 9 is a view similar to Figure 7, of the package shown in Figure 8.

Specifically describing the invention, the package includes a bag-like container A that is formed of opposed layers 1 and 2 of thin flexible material such as "Cellophane," "Pliofilm," metal foil or the like. More particularly, the package includes two separate sheets of such material

sealed together at 3 along their longitudinal marginal portions and at 4 along one transverse marginal portion to form a commodity receiving compartment between the sheets. The other transverse marginal portion of one sheet extends beyond the corresponding marginal portion 6 of the other sheet at 5 to form a closure flap.

A cover B of relatively heavy and preferably opaque material is secured to one wall of the container A as by sealing the cover to the container along the same longitudinal sealed zones 3 of the layers 1 and 2, and one end portion of the cover extends beyond the transverse marginal portions 5 and 6 of the sheets 1 and 2 as at 7 to form a flap.

A mouth for the container is formed between the transverse marginal portions 5 and 6 of the sheets through which the commodity receiving compartment is filled. After the compartment has been filled, the flap 5 of the container is folded over the other wall of the container, and the flap 7 of the cover is folded over the flap 5 and said wall of the container, and thereupon the flap 5 is sealed to the underlying wall of the container and to the underside of the flap 7 of the cover in a sealed zone 8 that extends along the transverse marginal portions 5 and 6 of the container.

Conveniently the cover 7 may be secured or sealed to the container simultaneously with the sealing together of the layers 1 and 2 of the container. Preferably the opposed surfaces of the layers 1 and 2 will have a thermoplastic coating and the surface of the cover in contact with the container will also have a thermoplastic coating so that the layers may be sealed together and to the cover under heat and pressure. Where the layers 1 and 2 are "Pliofilm," they will become fused under heat and pressure so as to effect the sealing without separate thermoplastic coating or adhesive. Any other suitable means, such as other adhesives, may be utilized for the sealing operations.

In filling packages of this nature, especially with powdered material, the interior of the walls of the container become coated with the substance being packaged so that said walls cannot be sealed together directly. However, with my invention, the flap 5 of the container can be effectually and firmly sealed to the outside of the opposite wall, the flap and the outside of said wall being substantially devoid of the packaged material.

The label folded over the sealed mouth of the package reenforces the seal, and the seal 8 effec-

tually holds the label flap 7 in substantially overlying and parallel relation to the juxtaposed wall of the container.

As shown in Figures 1 and 2, the cover-label B does not completely cover the container A, so that the contents of the container are visible easily at all times. However, if desired, the cover may be formed coextensive with both sides of the container as shown in Figures 4 and 5 so as to completely enclose the container within the cover. The package shown in Figures 4 and 5 is otherwise the same, and is assembled in the same manner as the package shown in Figures 1 and 2, the numerals in Figures 4 and 5 corresponding to the numerals in Figures 1 and 2.

Instead of forming the container of two separate sheets of packaging material such as "Cellophane," the container, as shown in Figures 6 and 7, may comprise a single sheet folded upon itself as at 9 to form one transverse marginal portion of the container, and the longitudinal marginal portions of the opposed layers formed by such folding, may be sealed together along zones 10 that correspond to the zones 3 of Figures 1 and 2. The package otherwise may be similar either to the package shown in Figures 1 and 2 or to the package shown in Figures 4 and 5.

Another form of package is shown in Figures 8 and 9 where the bag-like container C comprises two sheets 16 of packaging material sealed together along their longitudinal edges at 11 and having a cover D secured to one of the sheets along said zones 11. One end of the cover is folded around and sealed to one transverse marginal portion of the container as at 12, the edge 13 of the returned end portion being free from the container and slightly spaced therefrom. This seals together the transverse marginal portions of the walls of the container C so as to form a commodity receiving compartment between the walls defined by the sealing zones 11 and 12. A mouth for the commodity receiving compartment is formed between the other transverse marginal portions of the walls 16 of the container and both walls of the container C are folded transversely at 14 inwardly of said transverse marginal portions of the container, and the cover extends beyond the fold 14 to form a flap 15.

After the package has been filled, the marginal portions are folded inwardly along the fold 14 so as to close the container, whereafter the flap 15 of the cover is folded inwardly into juxtaposition to the container with its end portion inserted between the container and the free edge 13 of the returned end portion of the cover, whereby the flap 15 is held in a position to cover the container and at the same time holds the fold 14 of the container walls against unfolding.

As appears from the drawing and the foregoing description it is preferable that the portion of the wall of the container between the longitudinal zones 3, 10 and 11 are free from the respective covers B and D so that the flexibility of the containers A and C is unimpaired and the walls of the containers may easily flex to facilitate removal of the contents. This structure also permits the container walls to flex rela-

tively to the cover in case of pressure upon the edges of the packages, whereby to reduce the possibility of rupture of the thin wall of the container by bending of the relatively stiff cover.

It will also be observed that the sealing of the cover to the longitudinal sealed marginal portions of the container simultaneously with the sealing together of the layers of the container along said marginal portions facilitates the manufacture of the package in that separate handling of the package and the cover, as when the package and cover are formed in different operations, is obviated; and furthermore, the securing of the cover to one wall of the flexible walls of the container along the longitudinal marginal zones facilitates folding of the flap portion 7 of the cover, avoiding the necessity of providing external means for preventing relative movement of the package and cover during such folding operation. Also with this structure the flap 7 of the cover automatically backs up and folds the flap 5 of the container, preventing buckling of the latter as the cover flap 7 is folded over the mouth of the container.

It will be understood by those skilled in the art that the details of structure of the container and cover, and the means of attaching the cover to the container may be modified and changed without departing from the spirit or scope of the invention.

Having thus described my invention what I claim is:

1. The steps in a method of making a package consisting in sealing together opposed layers of thin flexible material in zones certain of which extend along the longitudinal marginal portions of said layers to form a commodity receiving compartment between them having a mouth between two corresponding transverse marginal portions of said layers, and simultaneously sealing a cover to the exterior of one layer along said longitudinal marginal zones with an end portion of said cover extending beyond said transverse marginal portions of said layers.

2. The steps in a method of making a package consisting in sealing together opposed layers of thin flexible material in zones certain of which extend along the longitudinal marginal portions of said layers to form a commodity receiving compartment between them having a mouth between two corresponding transverse marginal portions of said layers and with said transverse marginal portion of one layer extending beyond the corresponding marginal portion of the other layer, and simultaneously sealing a cover of relatively heavy and stiff material to the exterior of one layer along said longitudinal marginal zones with an end portion of said cover extending beyond said transverse marginal portions of said layers, and thereafter folding said extending end portion of said cover and said marginal portion of one layer into overlying relation to the other said layer and simultaneously sealing said extending marginal portion to the second-mentioned layer and to said extending end portion of the cover in a zone along the folds.

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