

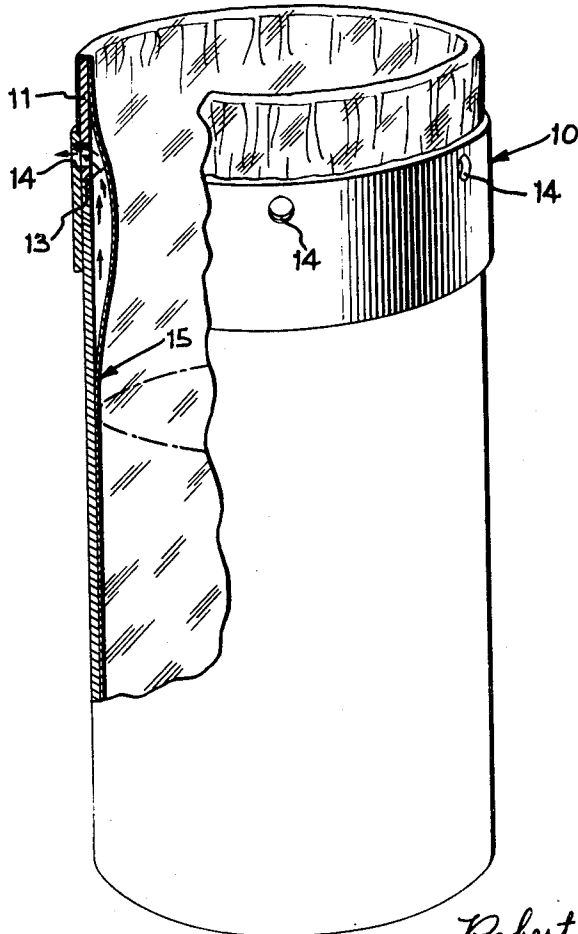
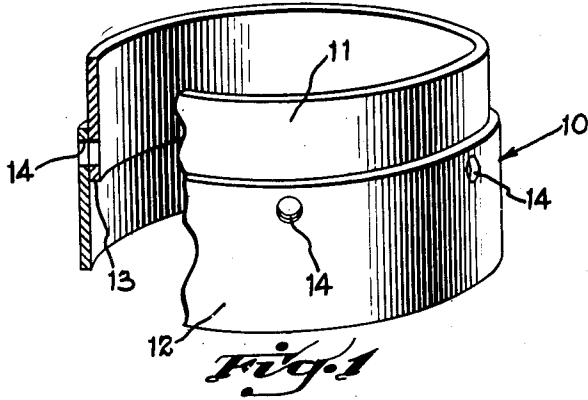
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ACCESSORY FOR USE IN FILLING LINED CONTAINERS

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*Fig. 2*

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## ACCESSORY FOR USE IN FILLING LINED CONTAINERS

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4 Claims. (Cl. 226-129)

1

This invention is directed to an accessory, in the nature of a vent device, which is designed to expedite the filling of lined containers.

The liners of the containers for which the present accessory is designed are preferably made of polyethylene or similar plastic, although other materials may be used. The liner is configured to form a bag. In order to ready the container for filling, the usual practice has been to seat the bag-like liner within the container and then turn the upper margin of the bag outwardly and downwardly over the upper rim of the container. It has been found, however, that it is virtually impossible, unless extreme care is taken, to arrange a liner in a container in this manner without entrapping air between the liner and the inner surface of the container, since in turning the upper end of the liner over the container rim a rather effective air seal is created. The result is that as the level of the material with which the bag is being filled rises during filling, the air between the liner and the container wall is squeezed upwardly, and being unable to escape readily at the top, collects, ballooning the liner out to a point where at times, it is impossible to fill the container to capacity. The entrapped air usually bleeds slowly past the rim seal but waiting for it to do so, slows the filling operation considerably.

The object of the present invention is to provide a simple and inexpensive accessory which obviates this difficulty by venting the space between the liner and inner wall of the container so that filling can progress without interference or interruption.

In the drawings:

Figure 1 is a perspective view, partly in section, showing the preferred embodiment of the invention.

Figure 2 is a perspective view of the accessory of Figure 1 shown in place upon a cylindrical drum which is in the process of being filled.

In the preferred embodiment of the invention illustrated in the drawings, the accessory comprises a sleeve indicated generally at 10, made up of a pair of short cylinder sections, i. e., an inner section 11, and an outer section 12. The two sections are partially telescoped or overlapped, one within the other, to provide an inner shoulder 13. The two cylinder sections 11 and 12 may be secured together by any of the well known means such as adhesive, stitching, staples or the like. In the area in which the two sections overlap, a plurality of vent apertures 14 is provided, these apertures in the instance shown,

2

being cut through the walls of both cylinder sections after assembly.

In use, the accessory is seated on top of the container or drum with shoulder 13 resting on the drum's upper rim, as shown in Figure 2. The upper end of the polyethylene liner, indicated generally at 15, is then turned outwardly and downwardly over the upper rim of the accessory. Thus as the level of the filling material rises while the container is being filled, air between the liner and the wall of the container is free to escape through the vent apertures 14, as indicated by the arrows in Figure 2.

Only one accessory is needed for each drum size; in each instance, the inner cylinder section 11 being the same diameter as the diameter of the drum so that shoulder 13 seats properly.

Preferably, the accessory is made from hard fiber, plastic or like material which can be given a smooth finish, particularly on the upper rim, in order to decrease the likelihood of tearing the liner when it is turned down in the manner described.

It will be appreciated that it is unnecessary to have a continuous outer cylinder section 12 for the accessory sleeve, since this portion of the accessory merely serves to center and hold the accessory in place on the drum. In addition, it will be appreciated that the particular shape of the accessory shown can be altered in order to adapt it to use with drums of different cross sectional shapes than the one shown without departing from the spirit of the invention.

Having described my invention, I claim:

1. In combination with a container having a bag-shaped liner therein, an accessory to expedite the filling of said container, said accessory comprising a sleeve adapted to be seated atop said container, said sleeve presenting an upper rim portion to receive the upper marginal edge of said bag-shaped liner, said upper marginal edge being turned outwardly and downwardly over said upper rim portion of said sleeve to hold said bag-shaped liner open, and said sleeve having vent apertures therein at places removed from the upper rim portion thereof to vent the space between the liner and the inner wall of the container so that filling of the container can progress without interference from air entrapped in said space.

2. In combination with a cylindrical container having a bag-shaped liner therein, an accessory to expedite the filling of said container, said accessory comprising an inner cylinder section which is the same diameter as said cylindrical

3

container, an outer cylinder section depending from said inner cylinder section and in telescoped overlapping relationship with said inner cylinder section, said accessory adapted to be seated on top of said cylindrical container and the upper marginal edge of the bag-shaped liner turned outwardly and downwardly over its upper rim to hold said liner open, and said accessory having vent apertures therethrough in the area in which the inner and outer cylinder sections overlap to vent the space between the liner and the inner wall of the container to permit entrapped air to escape so that filling can progress without interference or interruption from such entrapped air.

3. In combination with a cylindrical container having a bag-shaped liner therein, an accessory to facilitate the filling of said container, said accessory comprising an inner cylinder section and an outer cylinder section, said inner cylinder section being in telescoped overlapping relationship with an end portion of said inner cylinder section to provide an annular shoulder within the accessory, said inner cylinder section being the same diameter as the cylindrical container, whereby the accessory may be placed on top of said cylindrical container with said annular shoulder resting on the upper rim of said container in position to receive the upper marginal portion of said bag-shaped liner, and said upper marginal portion being turned outwardly and

4

downwardly over the upper rim of said accessory to hold said bag-shaped liner in open position, and said accessory having vent apertures therethrough at points removed from its upper edge but above said annular shoulder to vent air entrapped between said liner and the inner wall of said container so that filling can progress without interference from said entrapped air.

4. In combination with a container having a bag-shaped liner therein, an accessory to expedite the filling of said container, said accessory adapted to be seated on the upper edge of said container in position to receive the upper marginal edge of said bag-shaped liner, said marginal edge being turned outwardly and downwardly over the upper edge of said accessory to hold said bag-shaped liner open, vent apertures in said accessory to permit the escape of air entrapped between said bag-shaped liner and the inner wall of said container to permit the filling of said container to progress without interruption from said air.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,692,986	Hardy et al. ....	Nov. 27, 1928
1,789,281	Becker et al. ....	Jan. 13, 1931
2,178,494	Richardson .....	Oct. 31, 1939
2,514,988	Bell .....	July 11, 1950