Aug. 28, 1945. C. BARBIERI 2,383,760

COVER FOR PAPER CONTAINERS

Filed Jan. 27, 1943

Fig. 1.

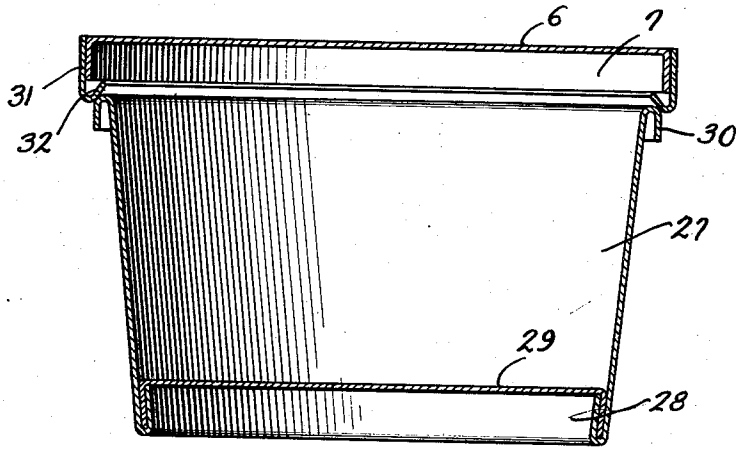


Fig. 2.

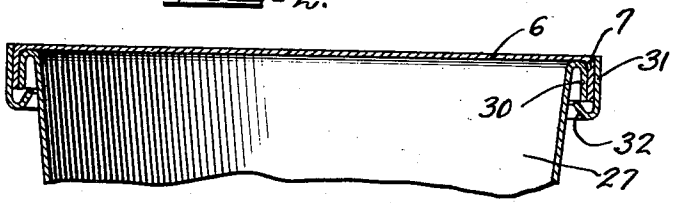


Fig. 3

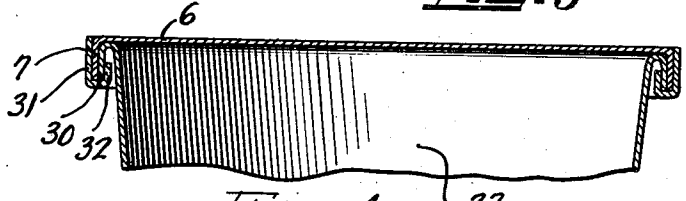


Fig. 4.

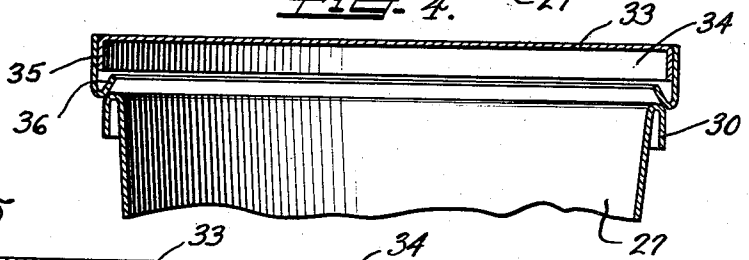
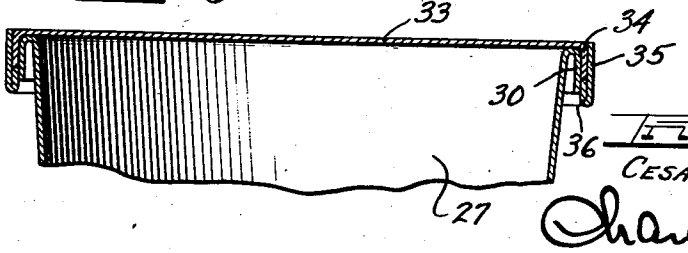


Fig. 5



Inventor

CESARE BARBIERI.

by Charles Allen Attys.

Patented Aug. 28, 1945

2,383,760

UNITED STATES PATENT OFFICE

2,383,760

COVER FOR PAPER CONTAINERS

Cesare Barbieri, New York, N. Y., assignor to Dixie Cup Company, a corporation of Delaware

Application January 27, 1943, Serial No. 473,660

1 Claim. (Cl. 229—5.5)

This invention relates to improvements in a cover for paper containers, and more particularly to a cover readily attached to a paper container of the character commonly used to contain commodities such as food products, for example, either hot or cold, liquid or solid products, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

Some difficulty has been experienced in the past in properly closing or sealing paper containers carrying food commodities. Frequently, such containers are intended for only a single usage such as when filled with hot coffee, cottage cheese, ice cream, or some similar commodity. At other times, the containers are intended for prolonged usage over a period of time during which the cover is frequently removed and replaced, such for example as containers for pipe tobacco and similar items. In certain instances, it is desirable to have a container to which the cover is attached in a manner to provide an air-tight seal of substantially a permanent character until it is desirable to remove the cover.

In addition, it will be noted that the containers themselves are made with various structural features. Some containers have outstanding flanges at the mouth end, others have rolled rim beads, others have a bead or groove disposed a slight distance inwardly from the mouth of the container, and still others have no configuration whatever in the margin of the container adjacent the mouth end, the container wall proceeding evenly to an abrupt stoppage which is the actual mouth of the container. It, therefore, is desirable to provide a cover which is substantially universal in character so that it would nicely fit substantially any form of container. In the past considerable difficulty has been experienced in applying a cover to a container, especially when the container was filled with a liquid or semi-liquid substance and filled a trifle beyond its intended cubic capacity. On such occasions, the contents of the container were frequently spilled or squirted out of the container when the cover was applied.

With the foregoing in mind, it is an important object of the instant invention to provide a cover for a paper container, which cover is substantially universal in fitting containers, being capable of providing a nice friction seal with substantially any form of container regardless of the construction of that container adjacent the mouth end thereof.

Another object of the invention is the provision of a paper container cover shaped to telescopically fit over the outside of the margin of a container adjacent the container mouth, the cover being so constructed as to maintain its shape even after repeated usage and not tend to flare outwardly and ruin its sealing capacity.

Also an object of the invention is the provision of a cover for paper containers which cover embodies a skirt-like flange upon which printing or other decorative matter may be readily placed if desired.

It is also an object of this invention to provide a cover for paper containers which may be readily manufactured on automatic machinery, and which cover is both economical and durable.

A further feature of the invention resides in the provision of a cover for paper containers which is of the snap-on character, and so may be readily and positively applied to the container.

Another feature of the invention resides in the provision of a cover for paper containers which may be both snapped on and snapped off the container, and used repeatedly with a good seal with the container resulting at each application of the cover.

It is also a feature of this invention to provide a cover for paper containers, the cover being so constructed as to provide an effective friction seal with a smooth side wall of the container, whether or not that side wall is perfectly cylindrical in character or tapering in the manner of a frusto cone.

Still another object of the invention resides in the provision of a cover for paper containers especially adapted to make a good and positive seal with the container even though the container may be filled beyond its intended capacity, the cover effecting a seal when pressed over the container a distance in keeping with the contents of the container, which may not be as great a distance as customary.

It is also an object of this invention to provide a cover for paper containers which may be associated with the container in a manner to provide an air-tight or hermetic seal, with the cover, if so desired, joined to the container in a manner requiring an implement for its facile removal.

Still a further object of the invention resides in the provision of a simple two-piece cover for paper containers, reinforced by embossing, if desired, and which may have various shapings or configurations in the central portion thereof, without interfering with the sealing capacity of the cup.

While some of the more salient features, char-

acteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawing, in which:

Figure 1 illustrates a cover of still different formation at the start of its application to a container having a different formation adjacent the mouth thereof;

Figure 2 is a fragmentary vertical sectional view of the same character as Figure 1, illustrating the further stage in the application of the cover to the container;

Figure 3 is a fragmentary vertical sectional view of the same character as Figures 1 and 2 illustrating the complete application of the cover to the container making an air-tight seal;

Figure 4 is a fragmentary vertical sectional view illustrating the first step in the application of a cover of still different form to a container like that seen in Figures 1 to 3 inclusive;

Figure 5 is a fragmentary vertical sectional view illustrating the complete application of the cover of Figure 4 to the container in the same figure.

As shown on the drawing:

In Figures 1 to 3 I have illustrated the cover embodying features of the instant invention which may be so associated with the container as to provide an air-tight or hermetic seal. In this instance, a container is shown in the form of a flat-bottomed truncated conical container. This container includes a body 27 having a reversely bent bottom flange 28 which is secured around the depending flange of a bottom member 29. The upper marginal portion of the container is turned outwardly and downwardly to provide a depending skirt 30 displaced from the body of the container.

In this instance, the cover includes the body piece 6 having the depending flange 7 thereabout. Around the flange 7 of the cover a strip 31 is adhesively secured, and this strip extends below the flange 7 and includes a marginal portion 32 extending obliquely upwardly from a bend in the nature of a smooth curve, a score line not being necessary to provide such a bend. As seen in Figure 1, when the cover is pressed downwardly over the top of the container the flange 32 is flexed in passing over the container skirt or flange 30. With reference to Figure 2 it will be seen that when the cover is actually seated on the container, the flange 32 extends below and inside of the flange 30 on the container, and may exert a frictional sealing grip on the container wall.

With reference to Figure 3, it will be seen that the flange 32 may then turn into intimate contact with the inside of the container flange 30 if so desired, and it will be understood that the flange 32, if so desired, may carry a stripe of adhesive on its contacting surface and thus be cemented to the inside face of the container flange 30. As the result of this attachment of the cover, an air-tight or hermetic seal results, and in most instances it would be impossible to effectively remove the cover from the container without the use of some implement or tool. While the cover just described may be termed a snap-on cover, a further operation is necessary to effectively seal the cover after it is attached to the container, and it is doubtful if the cover would be effectively removed from the container without some injury to the cover, unless the cover were only applied to the extent seen in Figure 2 from which position it might be snapped off. However, the cover is highly satisfactory for sealing some commodity in a paper container where an airtight hermetic seal is required, and where the cover will be disposed of when the container is opened.

It will be understood that the cover is preferably formed of two initially separate pieces, the piece 6 with its flange 7 and the strip 31, to avoid a tendency of the cover skirt to flare outwardly as might result if the cover were made of only one piece with a turned down marginal portion, and was repeatedly used. It will also be understood that if so desired printing or some other decoration may be applied to the cover around the exposed portion of the strip 31, and obviously any decorative characteristics may be applied to the outer face of the central part of the portion 6 so as to be visible when looking down upon a covered container. In addition, it will be noted that the cap or cover may readily be manufactured in an economical manner on automatic machinery, and that the structure is highly efficient, easy to handle, and durable.

In Figures 4 and 5 I have illustrated how a cover of somewhat similar formation to that seen in Figures 1 and 3 may be utilized with the container in a manner permitting the ready attachment and removal of the cover, so that the cover is adapted for repeated usages.

In this instance, the same container having the body 27 with the downwardly turned flange 30 is utilized. The cover includes a body portion 33 having a depending skirt or flange 34 thereabout, which skirt or flange is preferably of less depth than the skirts or flanges previously described.

Circumscribing the flange 34 is a strip 35 adhesively secured to the flange. This strip 35 is of such length and depends so far below the flange that a reversely bent marginal portion 36 which extends obliquely inwardly would just abut the lower edge of the flange 34 if the reverse bend were fully completed. As seen in Figure 4, when the cover is applied to the container the marginal portion 36 flexes in passing over the container flange 30. However, the cover is of such depth that when pressed into full engagement with the container, the sealing marginal portion 36 is still against the outer face of the flange 30 as clearly seen in Figure 5. In this position, the reverse bending of margin 36 is completed so that the upper edge of this margin is in abutment with the lower edge of the flange 34. It will be noted, however, that the margin 36 by its tendency to assume its original or obliquely disposed position will exert an even springing pressure all around the container flange 30, thus effecting a very tight friction seal, and thus permitting a ready removal and replacement of the cover. It is obvious that the cover shown in Figures 4 and 5 may be repeatedly used through a long duration of time, yet each application of the cover effectively seals in the contents of the container. It will be further noted that this cover is highly desirable for use in connection with containers frequently filled somewhat beyond their intended capacity, as when bulk ice cream is packaged for a customer. An effective seal will result as long as there is contact between the margin 36 and the container flange 30, regardless of whether or not the cover is pressed downwardly over the container as far as it would normally go.

From the foregoing, it is apparent that I have provided a novel cover construction for covers for paper containers, which covers may be snapped on the containers in an easy fashion to provide a positive frictional seal and frictional retention of the cover, and which may if so desired be snapped off the container by a reverse movement and repeatedly used. It will be further appreciated that the covers are in many instances especially adaptable for use in connection with containers frequently filled beyond their intended capacity, so that the cover may not fully go on the container, being limited in its downward movement by the bulkiness of the contents of the container, and nevertheless provide an effective frictional seal with the container. Further, it will be appreciated that the cover also may be engaged with the container to form an air-tight or hermetic seal if so desired. In addition, it will be noted that the cover construction embodied in this invention may be readily and economically manufactured on automatic machinery and is more than sufficiently durable for the intended purposes.

It will, of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claim.

I claim as my invention:

In combination, a paper container having an outwardly and downwardly turned marginal portion around the mouth end to provide a depending flange spaced from the body wall, and a paper cover for said container including a body portion having a depending flange extending therearound which flange is approximately the length of the container flange, a strip of similar material circumscribing said cover flange and extending therebelow, and the free marginal portion of said strip being turned inwardly and upwardly for interlocking engagement between the container flange and the container body wall.

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