Jan. 2, 1940. A. S. ALLEN 2,185,391

CONTAINER AND BLANK THEREFOR

Original Filed April 17, 1934

Fig. 1.

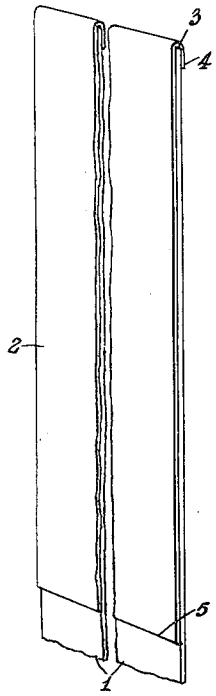


Fig. 2.

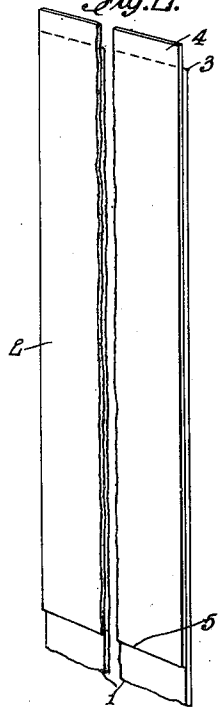


Fig. 3.

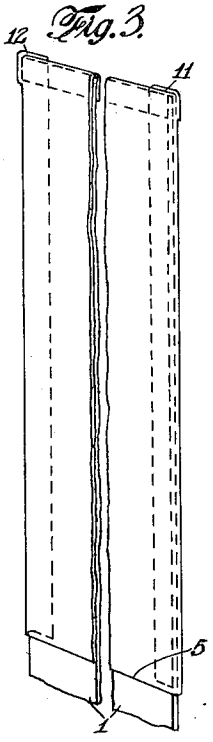


Fig. 4.

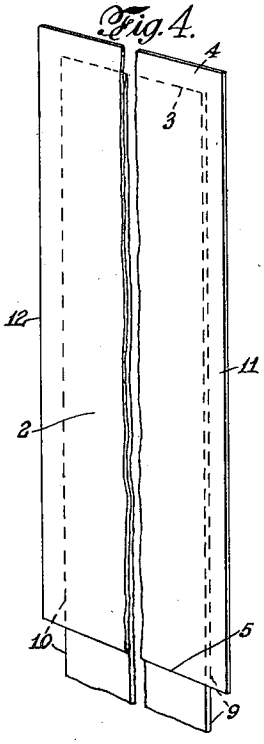


Fig. 5.

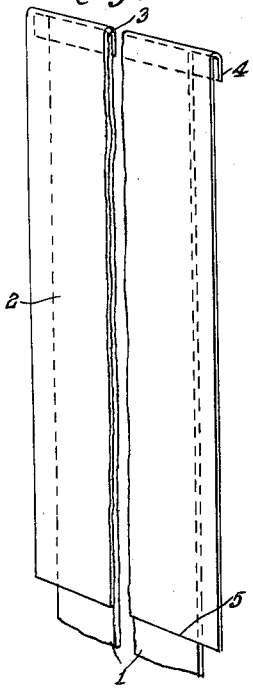


Fig. 6.

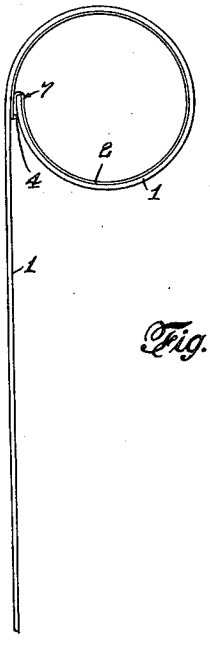


Fig. 7.

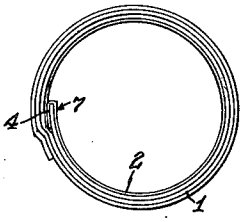


Fig. 9.

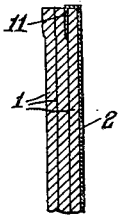
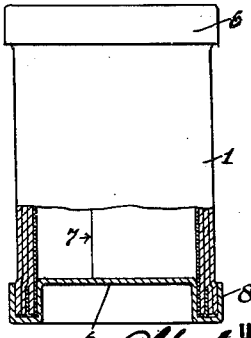


Fig. 8.



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CONTAINER AND BLANK THEREFOR

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Application April 17, 1934, Serial No. 720,927
Renewed August 11, 1937

3 Claims. (Cl. 229—3.5)

This invention relates to containers. More particularly it relates to lined containers and blanks from which said containers are made.

Oily and greasy materials have heretofore generally been packaged in containers of glass, metal or similar materials. Such containers were usually discarded after the contents had been removed. As these containers are comparatively expensive, attempts have been made to package oily and greasy materials in inexpensive containers having a container shell or tube of cardboard or other similar material provided with a liner of an oilproof and greaseproof material. In these containers, when the liners were of the same length as the container shell or tube, the oily or greasy materials were not prevented from creeping around the ends of the oilproof and greaseproof linings. This, due to the absorptive nature of the container tubes, resulted in the oil or grease being absorbed thereby with the resultant loss of contents and/or marring of the appearance of the containers. When the container was of the type which was formed by lapping the blank on itself, the exposed edge of the lapped joint on the interior of the container absorbed the oil or grease and produced the above-mentioned undesirable defects.

I have found that I can overcome the above-mentioned disadvantages and produce a container, particularly of the type formed by lapping a blank on itself, by providing a blank having secured thereto an oilproof and greaseproof material which is at least folded back over the edge of the blank which constitutes a part of the lap joint and which is to be exposed in the interior of the container. If desired, the liner may also be back-folded over the edge of the blank which constitutes the top and bottom edges of the container.

It is, therefore, an object of this invention to provide a lined container in which the edges exposed or adapted to come in contact by reason of the contents creeping are protected by the liner.

Another object of this invention is to provide a blank which is adapted to be formed into a container of the type previously mentioned.

Other objects of the invention will become apparent from the following description, appended claims and accompanying drawing forming a part of this specification and wherein:

Figure 1 is a perspective view of one embodiment of a blank made in accordance with the instant invention.

Figure 2 is a perspective view of the blank shown in Figure 1 at one stage in the manufacture thereof.

Figure 3 is a perspective view of another form of blank made in accordance with the instant invention.

Figures 4 and 5 are perspective views of the blank shown in Figure 3 at different stages in the manufacture thereof.

Figure 6 diagrammatically illustrates the initial operation of forming the container from the blank.

Figure 7 is an end view of the container shell.

Figure 8 is a front elevation partly in section of a container made in accordance with the principles of this invention.

Figure 9 is a section adjacent the end of the container made from the blank illustrated in Figure 3.

Referring now to the drawing wherein like reference numerals designate like parts, the numeral 1 designates a sheet of material which is to constitute the body portion of the container. In the preferred embodiment of the invention, the sheet 1 is made of any suitable material, preferably cardboard, paper or the like. A sheet of oilproof and greaseproof material 2, which is to constitute the liner of the body portion of the container, is adhesively secured by means of any suitable adhesive to a predetermined area of the cardboard 1. As clearly shown in Figure 2, the oilproof and greaseproof material 2 is so disposed on the cardboard 1 that a portion thereof overlaps the edge 3 of the cardboard 1. This overlapping portion is folded back over the edge 3, as shown in Figure 2. In the preferred form, the folded-back portion 4 is also adhesively secured to the cardboard 1.

In the process of making this blank, the oilproof and greaseproof material 2 is adhesively secured to the cardboard 1, the adhesive being applied to at least one of the materials to be united, either simultaneously or prior to the uniting thereof. The lamination of the two materials and also the folding back of the overlapping portion 4 of the oilproof and greaseproof material 2 may be effected simultaneously, or the folding-back operation may be performed after the laminating operation.

To form a body portion of a container from the blank previously described, the blank is folded, convolutely wound or otherwise formed into the desired shape. In the initial operation of forming the body portion of the container, the overlap 4 of the oilproof and greaseproof material 2 is brought into position so that it overlaps

the opposite edge 5 of the oilproof material, as shown in Figure 6. The remainder of the blank is then convolutely wound to form the ultimate container. A suitable adhesive is applied either prior to or simultaneously with the lapping operation. The body portion of the container thus produced is then provided with end portions or closures 6 of any convenient type, such as metal closures of the drum head type. If desired, a luting composition may be applied between each of the end closures and the body portion of the container.

It is to be noted that in the lapped joint 7 the edge of the cardboard 1 is rendered non-absorptive by the oilproof material 2 being back-folded thereover. The depth of the annular flange 8 of the end closure is sufficient to aid in inhibiting the creeping of the oily matter around the edges of the bottom and top of the container. The dimensions of the cardboard and the material constituting the liner will, of course, vary depending upon the size of the container and the number of layers constituting the wall of the container. Figure 7 illustrates the wall of the body portion as made of three layers of the cardboard but it is to be understood that a greater or lesser number of layers may be used without departing from the nature of the instant invention. The length of the material 2 constituting the liner should be such that when the blank is formed into the body portion, the entire interior surface will be lined and the overlap 4 will overlap a portion of the liner adjacent the edge 5.

In the drawing, for purposes of illustration, the body portion is shown as being cylindrical. It is to be understood that the invention is not restricted to the precise form, since it is obvious that the body portion may be made with any desired cross-section, for example, square, rectangular, octagonal, elliptical, etc. Additionally, though the invention is described in connection with body portions of containers, it is obvious that the principles thereof may be used for the manufacture of boxes, cartons, etc.

In some cases, it is desirable to also provide protection on the ends of the container to positively prevent any undesirable results occasioned by the creeping of the oil. With this in view, the instant invention in one of its phases also contemplates back-folding the liner over the end of the body portion.

Referring now to Figure 4, a sheet of oilproof and greaseproof material 2 is adhesively secured to the cardboard 1. As is clearly shown in Figure 4, the disposition and size of the sheet is such that it will overlap the edge 3 and the edges 9 and 10, as indicated, of the cardboard 1. As explained in connection with Figures 1 and 2 above, in the manufacture of the blank shown in Figure 3, the portion of the oilproof and greaseproof material overlapping the edge 3 of the cardboard is folded back on itself to assume the form and shape shown in Figure 5. The blank is then subjected to an operation wherein the portions overlapping the edges 9 and 10 are back-folded to produce the overlaps 11 and 12. The overlaps 4, 11 and 12 may be adhesively secured to the cardboard 1. The blank shown in Figure 3 is then formed into a body portion of a container in the same manner as is above explained in connection with the formation of a body portion from the blank shown in Figure 1. The end portions 5 and 6 are then secured to the body portion.

The body portion produced as immediately described, not only has the exposed edge of the lap joint protected by the liner, but the edge at the top and bottom thereof is also protected as is shown in Figure 9.

The liner 2, when the container is to be used for packaging oily and greasy materials, is of an oilproof and greaseproof nature. As illustrative examples of such oilproof and greaseproof material may be mentioned regenerated cellulose sheeting.

Though the invention has been particularly described in connection with making an oilproof and greaseproof container, it is obvious that the principles thereof are equally applicable to containers employed for other purposes. Generally, the liner is formed of a material which produces the desired results. For example, if the contents of the package is desired to be retained in its original fresh state, this may be secured by employing a moistureproof material, such as moistureproof regenerated cellulose sheets, moistureproof paper, etc. as the liner. Similarly, a container of the type herein described may be satisfactorily used for the packaging of frozen juices, such as frozen orange juice, grape juice, prune juice, etc. In such cases the liner, of course, must be of a material which will not deleteriously affect the contents and vice versa. A liner made of cellulose acetate sheeting has given satisfactory results for these purposes.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature or spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. A blank to be convolutely wound into a lined tubular body portion of a container having a lap joint on the interior thereof comprising a sheet of absorbent material which is to constitute the wall of said body portion, said sheet being of a length to form a plurality of layers when convolutely wound, a sheet of non-absorbent material which is to constitute the liner adhesively secured to said sheet of absorbent material and only extending over a portion of the length thereof, the sheet which is to constitute the liner being back-folded over the edge of said absorbent sheet which is to be exposed in the interior of the ultimate body portion to prevent absorption and also back-folded over a portion of each of the edges which are to constitute the top and bottom edges of the body portion, said sheet of non-absorbent material being of a length that, when the blank is convolutely wound, it will form a liner on the interior exposed surface of the body member and will overlap the first-mentioned back-folded portion only.

2. A container comprising a body portion formed from a blank comprising an absorbent sheet material of a length to be formed into a plurality of layers when convolutely wound, a covering of an oilproof and greaseproof material on one side of said absorbent sheet material, said oilproof and greaseproof material extending over a portion of the length of said absorbent material and back-folded over at least the edge of the absorbent material which is to be exposed on the interior of the container when the blank is convolutely wound and also back-folded over the edges of said absorbent material which is to constitute the top and bottom edges of the container, said blank being convolutely wound to form a body portion formed of a plurality of layers of said absorbent material and in which

body portion the oilproof and greaseproof material constitutes a liner on the interior exposed surface of the body portion and overlaps on the first-mentioned back-folded portion thereof only, and end portions secured to the top and bottom edges respectively of the body member, said end portions having flanges of a depth to aid in inhibiting the creeping of the packaged oily contents around the top and bottom edges of the body portion.

3. A container comprising a body portion formed from a blank comprising an absorbent sheet material of a length to be formed into a plurality of layers when convolutely wound, a covering of an oilproof and greaseproof material on one side of said absorbent sheet material, said oilproof and greaseproof material extending over a portion of the length of said absorbent material and back-folded over at least the edge of the absorbent material which is to be exposed on the interior of the container when the blank is convolutely wound and also back-folded over the edges of said absorbent material which is to constitute the top and bottom edges of the container, said blank being convolutely wound to form a body portion formed of a plurality of layers of said absorbent material and in which body portion the oilproof and greaseproof material constitutes a liner on the interior exposed surface of the body portion and overlaps only on and is adhesively secured to the first-mentioned back-folded portion, and end portions secured to the top and bottom edges respectively of the body member, said end portions having flanges of a depth to aid in inhibiting the creeping of the packaged oily contents around the top and bottom edges of the body portion.

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