Jan. 17, 1939. V. E. HEYWOOD 2,144,456

PAPER RECEPTACLE AND BLANK THEREFOR

Filed March 15, 1934 2 Sheets-Sheet 1

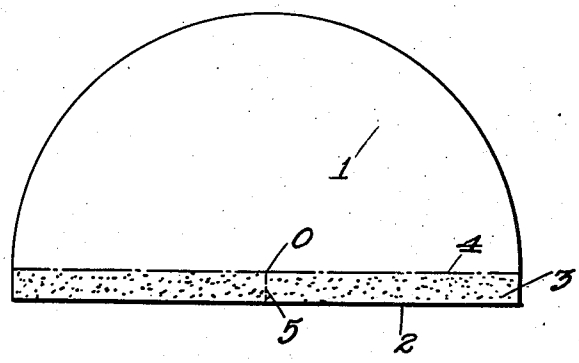


Fig. 1.

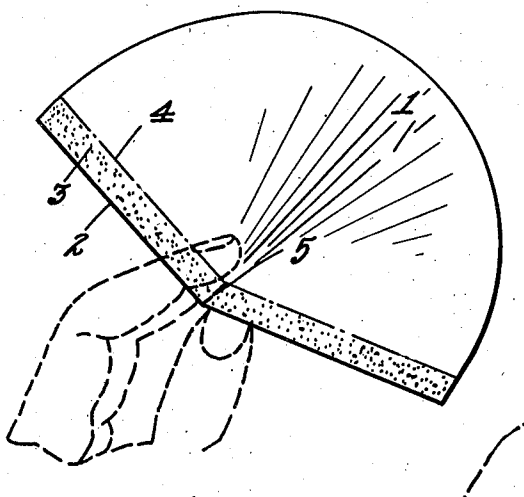


Fig. 2.

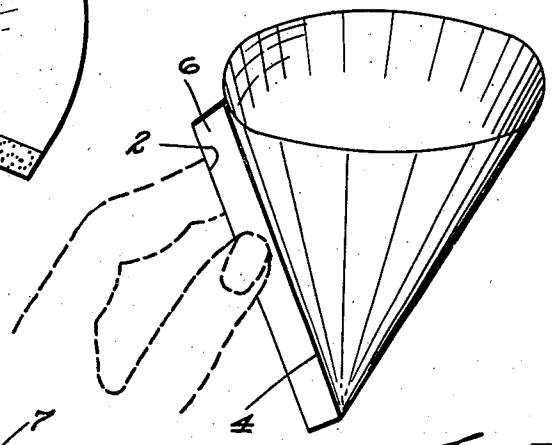


Fig. 3.

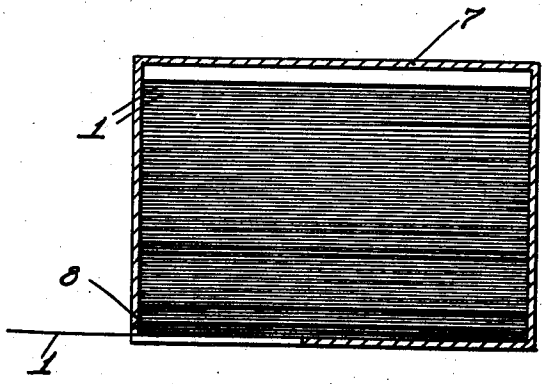


Fig. 4.

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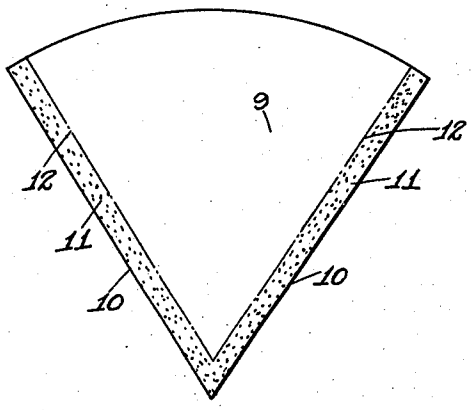


Fig. 5.

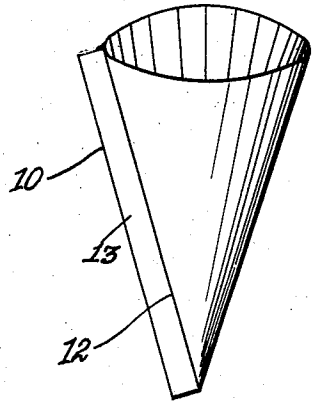


Fig. 6.

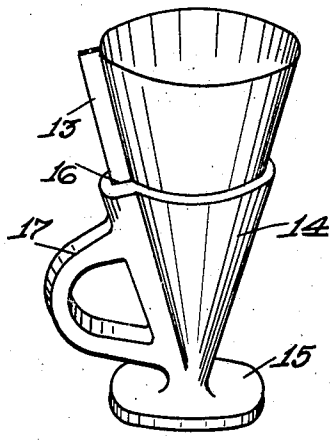


Fig. 7.

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UNITED STATES PATENT OFFICE

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PAPER RECEPTACLE AND BLANK THEREFOR

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Application March 15, 1934, Serial No. 715,683

2 Claims. (Cl. 229—1.5)

The present invention relates to paper receptacles, such as cups or similar articles which are customarily used for individually serving liquids, or semi-liquids, and then thrown away.

Heretofore such cup-like receptacles have been provided either in flat or collapsed form, or in open-mouthed self-extended form. Flat cups, while readily packed and distributed are open to the objections that they must be opened by the users and are difficult to use when full, due to their tendency to collapse when held too tightly. On the other hand, open, self-extended cups, while much easier to hold and use, are more expensive and require the use of special means for dispensing them in nested relation.

According to the present invention, there is provided an improved form of cup-like receptacle, that possesses all the advantages of an open-mouthed cup in use, as well as the advantages of a flat cup, as regards packing and distribution. Briefly stated, the invention contemplates the formation of open-mouthed receptacles from flat blanks so prepared that by an extremely simple operation, each blank may be converted into a cup, whenever required. The above and other advantageous features of the invention will hereinafter more fully appear from the following description with reference to the accompanying drawings, in which:—

Fig. 1 is a plan view of a prepared receptacle blank embodying the invention.

Fig. 2 is a view illustrating the first step of converting the blank of Fig. 1 into a cup.

Fig. 3 shows the blank of Fig. 1 converted into an open-mouthed cup, and the manner of holding the same in use.

Fig. 4 is a sectional view through a pack of blanks enclosed in a dispensing carton.

Fig. 5 illustrates a modified form of blank embodying the invention.

Fig. 6 shows the blank of Fig. 5 converted into an open-mouthed cup.

Fig. 7 shows a holder for receiving and supporting cup of Fig. 6.

Like reference characters refer to like parts in the different figures.

Referring first to Fig. 1, a blank 1 is provided which is substantially semi-circular in form, with a center of curvature 0 somewhat displaced from the straight edge 2 of the blank. In the manufacture of the blank 1, a band of gumming 3 is applied thereto paralleling and extending up to its straight edge 2, with the other edge of the gumming 3 preferably defined by scoring 4 indicated by the dot and dash line, as extending through the center of curvature 0. The gumming 3 is of such a character that any portion thereof will adhere to another portion upon non-moistened contact, although the gumming will not adhere of itself to an ungummed surface. Preferably, the gumming 3 is in the form of a dispersed rubber solution, or natural or compounded latex, the invention also contemplating the use of other similar dry-sealing adhesives in the form of thermoplastics, such as arclor resins or galyptols, either alone or in combination with rubber.

When it is desired to convert the blank 1 into a cup, the blank is held by the fingers along its gummed edge as indicated in Fig. 2, and the gumming 3 folded at its middle, which folding may be expedited by the provision of scoring 5 extending from the center 0 at right-angles to the scoring 4. The blank is then curled to bring opposed portions of the edge 2 into exact register, and pressure is applied to the overlying gummed portions to bring them into close contact, as shown in Fig. 3. As a result of the engagement of the contacted gummed areas under pressure, the blank 1 is converted into a complete cup-like receptacle characterized by an open-mouthed body of conical form, with a straight fin 6 of double thickness extending along one side of the body, whereby the cup may be conveniently held between the thumb and fore finger, as indicated in Fig. 3. Due to the inherently moisture-resistant characteristics of the adhesive utilized for the gumming 3, the completed cup retains liquid without leaking, and when held by the flat fin 6, it is very easy for the user to present the opposite edge of the cup to the lips for drinking, without spilling.

Obviously, the blanks 1 can be piled flat and handled in packs without any possibility of the gumming 3 on one blank coming into contact with the gumming on the next adjacent blanks. Furthermore, the blanks can be readily removed, individually, from the packs for conversion into cups. In Fig. 4, a pack of blanks 1 is shown enclosed in a suitable carton 7, the bottom of which is cut away at 8 to permit the lowermost blank to be withdrawn flatwise with its gummed edge uppermost, as indicated. This manner of removing a blank insures that the fingers of the user come into contact only with the gumming 3 and with portions of the opposite side of the blank which form the outside of the completed cup. Therefore, there is no possibility of the inside of the cup becoming contaminated from contact with the fingers before use.

Referring to Figs. 5 and 6, there is shown a

modified cup blank 9, which is in the form of a segment of a circle. In the manufacture of the blank 1, the radial edges 10 thereof are gummed at 11, with the same type of adhesive which is applied to the blank 1, with score lines 12 preferably defining the inner edges of the gummed areas. In converting the blank 9 into a cup, it is seized between the fingers near its apex and then curled to bring the edges 10 into exact register, followed by the application of pressure to the engaged gummed areas. This results in the formation of a complete cup, which as shown in Fig. 5, provides an open-mouthed conical body, with a fin 13 extending along one side thereof by which the cup may readily be held.

The cups of either Fig. 3 or 6 are particularly adapted for use instead of glasses, wherever beverages or semi-liquid foods are served, by reason of the fact that the cup blanks are not exposed to contamination and are converted into cups only as needed. Furthermore, the provision of the side fins 6 and 13 particularly adapts the cups to be used in connection with a rigid holder for supporting the cups in an upright position. Such a holder is shown at 14 in Fig. 7 as providing a supporting base 15 and a slot 16 in its wall for receiving the fin 13 of the cup of Fig. 6. The reception of the fin 13 in the slot 16 prevents the cup from moving in the holder, and the slot 16 can be conveniently formed in a handle portion 17 by which the holder may be grasped.

From the foregoing, it is apparent that by the present invention there is provided an improved cup-like receptacle that may be quickly and easily formed from a prepared blank whenever it is desired to use the same. Cups formed in accordance with the invention thus possess all the advantages of open-mouthed cups in use, with the added advantage of being able to pack the blanks in flat form without possibility of contamination, or the necessity of using any special dispensing apparatus. Obviously, the exact forms of the prepared blanks may be varied to meet the proportions of the receptacles which it is desired to produce, and the resulting receptacles are adapted for a wide variety of uses. Thus, a soda fountain can utilize several forms of blanks, receptacles formed from the blank of Fig. 1 being suitable for serving ice cream, while receptacles formed from the blank of Fig. 5 are suitble for serving drinks, as well as for enclosing ice cream cones so that the melting ice cream will not get on the hands.

I claim,

1. A semi-circular, flexible blank for a receptacle of the class described, provided along its diametrical edge with a moisture-resistant, dry-sealing adhesive.

2. An open-mouthed receptacle of conical form made from a flat blank having a straight marginal portion thereof coated with a moisture-resistant, dry-sealing adhesive, said receptacle providing a tight, waterproof seam in the form of a flat fin extending along the conical body of the receptacle from its apex to mouth, and with said fin comprising overlying pressure-engaged portions of the said dry-sealing, adhesive-coated margin of the blank.

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