March 5, 1940. A. SCHWARZENZER 2,192,415

PAPER CUP

Filed May 2, 1938

FIG.2.

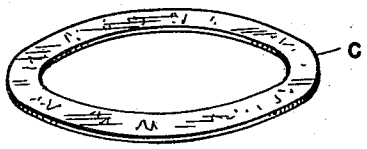


FIG.1.

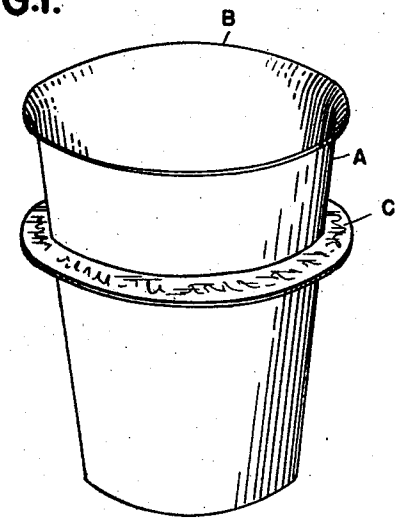


FIG.3.

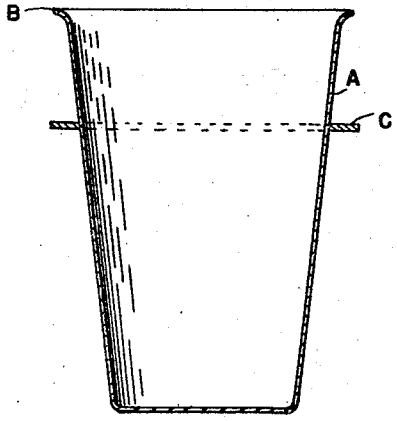
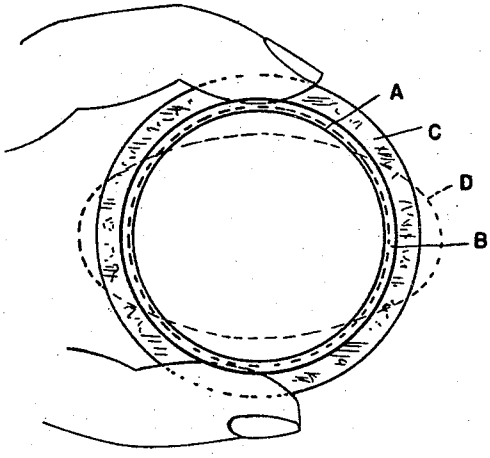


FIG.4.



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PAPER CUP

Alexander Schwarzenzer, Roseville, Mich.

Application May 2, 1938, Serial No. 205,578

2 Claims. (Cl. 229—1.5)

The invention relates to paper cups such as are frequently placed in holders in nested relation to be accessible for public use. As these cups are formed of paper they are easily collapsed and while they are usually provided with a slightly flared flange at the upper end to reenforce the same, this is insufficient to effectively prevent collapsing. Heretofore, various handle constructions have been devised for use with such cups but these are complex in construction and usually not available for public use. It is the object of the present invention to provide an exceedingly simple and inexpensive means for holding the cups from collapsing. It is a further object to provide a construction of reenforcement means which may be readily stacked adjacent to the cup holder so as to be available for application to the cups individually. The invention therefore consists in the construction as hereinafter set forth.

In the drawing:

Figure 1 is a perspective view of a paper cup with my improved reenforcement means applied thereto;

Figure 2 is a similar view of the reenforcement member;

Figure 3 is a vertical central section through the cup and reenforcement;

Figure 4 is a plan view illustrating the reenforced cup as held by a hand.

As illustrated, A is a paper cup of usual construction preferably tapered from top to bottom so as to permit of nesting and also having a slightly turned flange B at its upper end. C is my improved reenforcement member which is preferably formed as a ring of cardboard. The internal diameter of this ring is such as to fit the tapered cup a short distance below the upper end thereof, and the radial dimension of the cross-section of the ring is sufficient to impart thereto the required rigidity. Thus by sleeving the ring upon the cup and moving it upward into firm engagement therewith the desired reenforcing effect is obtained. This effect is due to the fact that the ring will resist expansion of the cup in any direction and consequently will prevent collapsing. This is illustrated in Figure 4 in which the dotted line D shows the form the unreenforced cup would assume if grasped between the thumb and finger of the hand with sufficient pressure to collapse the opposite sides thereof. It will be noted that the major axis of this form is greater than the original diameter of the cup and such expansion must take place before the sides can be collapsed. However, the reenforcement ring C has sufficient rigidity to prevent enlargement of the cup in any direction and therefore it cannot be collapsed in a transverse direction.

The cost of the cardboard reenforcing rings is negligible and by using the flat faces of the rings for advertising matter, this may partly or fully pay for the cups.

What I claim as my invention is:

1. The combination with a paper cup tapering from top toward bottom, of a narrow cardboard ring of an internal diameter to fit said cup in a plane intermediate the lower and upper ends the cross-section of said ring being of only sufficient radial dimension to impart rigidity thereto and to thereby hold the cup from collapsing by external grasping pressure on diametrically opposite sides thereof.

2. The combination with a paper cup of circular cross-section and tapering from top toward bottom, of a narrow circular cardboard ring having an internal diameter to fit said cup in a plane intermediate the bottom and top thereof the cross-section of said ring having a radial dimension only sufficient to impart rigidity thereto and to hold the same in circular form thereby preventing expansion of the cup therein in any direction and consequently preventing collapsing by external grasping pressure on the side walls thereof.

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