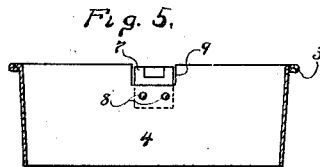
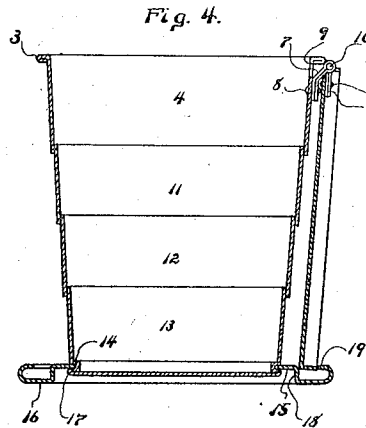
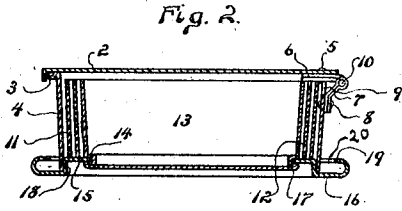
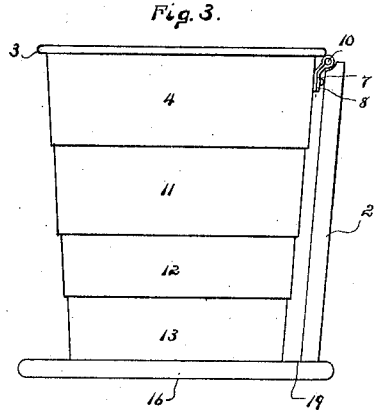
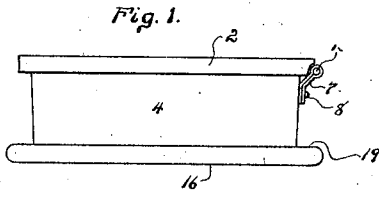


F. C. SMITH.
 COLLAPSIBLE DRINKING CUP.
 APPLICATION FILED MAR. 5, 1912.

1,037,068.

Patented Aug. 27, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK C. SMITH, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE WATERBURY MFG. CO., OF WATERBURY, CONNECTICUT, A CORPORATION.

COLLAPSIBLE DRINKING-CUP.

1,037,068.

Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed March 5, 1912. Serial No. 681,756.

To all whom it may concern:

Be it known that I, FREDERICK C. SMITH, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Collapsible Drinking-Cups; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a view in side elevation of a collapsible drinking-cup constructed in accordance with my invention, and shown in its collapsed or closed position. Fig. 2 a sectional view of the cup as closed. Fig. 3 a view of the cup shown in its open position in which it is maintained by using the cover as a support. Fig. 4 a sectional view of the cup as open. Fig. 5 a detached view of the upper ring shown in vertical section and looking toward the rectangular clearance cut formed in its edge for the reception of the hinge for the cover.

My invention relates to an improvement in collapsible drinking-cups of that class which are composed of a series of tapering rings suitably differentiated in diameter so that when they are drawn apart they will coact to form tight joints by the friction of the adjacent rings upon each other, the object of my present invention being to produce at a low cost for manufacture a simple and convenient cup of the character described, constructed with particular reference to its provision with a support whereby the rings are positively held in their extended positions and the untimely collapse of the cup prevented.

With these ends in view my invention consists in a collapsible drinking-cup having a series of differentiated rings, a base attached to the cup-like bottom ring, and a hinged cover applied to the top ring and adapted in size and position to engage with the said base so as to form a positive support for the rings when the cup is open.

My invention further consists in a collapsible drinking-cup having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claim.

In carrying out my invention as herein

shown, I employ a circular flanged cover 2 made of thin sheet-metal and adapted to shut over the horizontal rim 3 formed by bending the upper edge of the top ring 4 upon itself. The said cover 2 is secured by a rivet 5 or in some equivalent manner, to the inner face of the outer leaf 6 of a hinge the inner leaf 7 of which is secured by a rivet 8, or in some equivalent manner, to the outer face of the top ring 4 at a point directly below a rectangular clearance-slot 9 formed in the edge thereof as clearly shown in Fig. 5. The upper portion of the said leaf 7 of the hinge is bent outwardly for clearance and also to make the hinge sufficiently yielding to exert a draft upon the cover in its closed position so as to hold it in such position. As shown the leaves or members 6 and 7 of the hinge are made by folding small strips of sheet-metal upon themselves and united by a pintle 10, but I do not limit myself to any specific construction of hinge or mode of securing it in place.

In addition to the top ring 4, the cup comprises intermediate rings 11 and 12 and a cup-like bottom-ring 13 which is the smallest of the series, and the closed lower end of which is reduced in diameter to adapt it to be set through an opening 14 formed in the center of the flat circular top 15 of the sheet-metal base or foot 16 of the cup, the said base 16 being larger in diameter than the diameter of the cover 2 of the cup. In assembling the cup-like bottom ring 13 with the base 16, its said contracted lower end is set through the said opening 14 after which the projecting lower end of the cup-like ring 13 is upset to form the retaining flange 17 as clearly shown in Figs. 2 and 4. The said base 16 is formed with an annular concentric positioning shoulder 18 the diameter of which is gaged with reference to the diameter of the lower edge of the top-ring 4 so that when the cup is closed, the lower edge of the ring 4 will fit snugly over the shoulder 18 as shown in Fig. 2, whereby the ring 4 will be firmly held with reference to the base 16.

It will be noted that the joints formed between the rings when they are pulled apart for the production of the cup are merely friction joints, and it sometimes happens with drinking cups of this class that they collapse untimely. To prevent this possibility and to positively hold the cup in its

open position, I utilize the cover 2 as a support by proportioning the parts so that when the rings are fully extended the edge of the cover may be snapped over, so to speak, an inwardly turned annular flange 19 formed upon the base 16, the parts of the cup being sufficiently pliable to permit the cover 2 to be readily sprung into and out of its supporting position as shown in Figs. 3 and 4. The said flange 19 is larger in diameter than the positioning-shoulder 18 aforesaid which is concentric with it; therefore there will be formed between them an annular space 20 which receives the lower edge of the top-ring 4 to permit the same to be engaged with the said shoulder 18. This adaptation of the cover 2 to be used as a support for the cover in no wise interferes with its primary use as a cover as shown in Figs. 1 and 2. When the cover is in its supporting position as shown in Figs. 3 and 4, it serves as a handle for the cup and as a protection for the fingers.

I claim:—

25 In a collapsible drinking cup, the combi-

nation with a series of graduated rings including a top and a bottom ring, of a circular sheet metal base or foot applied to the bottom ring and formed with a positioning shoulder adapted in diameter to be engaged 30 by the lower edge of the top ring when the cup is collapsed, and the said base being formed upon its edge with an inwardly turned flange larger in diameter than the said shoulder from which it is separated by 35 an annular space for the reception of the lower edge of the said top-ring, and a circular cover hinged to the said top ring and adapted when the rings are extended, to be engaged with the said flange of the foot to 40 positively support the rings in their open or extended positions.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FREDERICK C. SMITH.

Witnesses:

A. C. RECKER,
J. S. NEAGLE.