

(No Model.)

J. LINES.
COLLAPSIBLE CUP.

No. 577,764.

Patented Feb. 23, 1897.

Fig. 1.

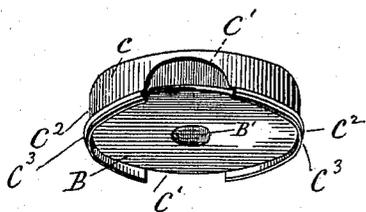


Fig. 4.

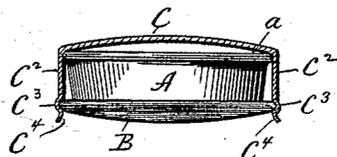


Fig. 3.

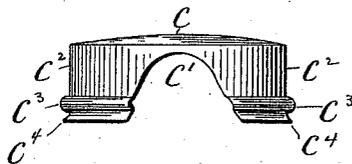


Fig. 2.

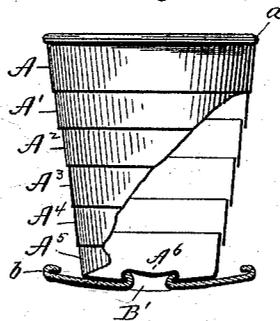


Fig. 5.

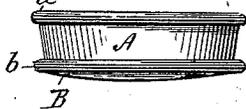


Fig. 6.

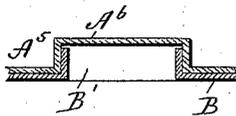
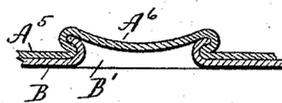


Fig. 7.



Witness.

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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE CUP.

SPECIFICATION forming part of Letters Patent No. 577,764, dated February 23, 1897.

Application filed January 31, 1896. Serial No. 577,521. (No model.)

To all whom it may concern:

Be it known that I, JOHN LINES, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Collapsible Cups; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of my improved cup as collapsed and provided with its cover; Fig. 2, a view, partly in section and partly in side elevation, of the cup as extended for use; Fig. 3, a view in side elevation of the cover by itself; Fig. 4, a view in side elevation with the cup collapsed and the cover shown in section; Fig. 5, a detached view of the cup shown as collapsed; Fig. 6, an enlarged detail view showing the bosses formed in the cup-like ring of the body of the cup and in the disk-shaped foot for the purpose of securing those parts together; Fig. 7, a similar view showing the bosses after they are upset.

My invention relates to an improvement in telescopic, folding, or collapsible cups composed of a series of rings differentiated in diameter and coacting to form tight joints when drawn out, the object being to produce a simple, convenient, and neat cup of this type and constructed with particular reference to being inclosed when not in use, as in a box, one member of which is permanently secured to the cup and constitutes a foot or standard for it.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, the cup is composed of a series of six telescopic rings A, A', A², A³, A⁴, and A⁵, differentiated in diameter, each slightly tapering in form and diminishing in size in the order named. The ring A, which is the largest of all, is constructed at its outer edge with a bead *a*, while the ring A⁵, which is the smallest of all, is of cup-like form.

When the cup is collapsed, these rings come into the same horizontal plane and are all loose, but when the cup is extended the adjacent edges of the rings come together in the formation of joints which are liquid-tight.

To the bottom of the cup I secure a dished disk-shaped foot B, having an inwardly-turned bead *b*. A simple and effective means for securing the cup-like ring A⁵ to the said foot is shown in Figs. 6 and 7.

Fig. 6 shows the cup-like ring A⁵ as being formed with a central inwardly-projecting boss A⁶ and the foot as being formed with a similar central inwardly-projecting boss B', enough smaller in diameter than the boss A⁶ to fit within the same. Then after the boss B' has been entered into the boss A⁶ both of them are upset, as shown in Fig. 7, whereby the bosses are broken down outwardly and the foot firmly clamped onto the cap A⁵, and this without the use of any solder or without breaking or cutting the metal.

The foot B is very slightly larger in diameter than the beaded edge of the ring A and performs the twofold office of forming a support for the cup when extended for use, and also of forming an attachment for the cover or cap C of the cup. This cover is preferably formed from a single piece of sheet metal, and should be as large in external diameter as the diameter of the largest portion of the ring A. For the purpose of making its flange elastic the same is constructed at opposite points with two deep notches C' C', dividing the flange into two members C² C³. These flanged members are concentrically fluted, as at C³ C³, near their outer edges, which are flared outwardly, as at C⁴ C⁴, whereby the flanges are adapted to be sprung over the beaded edge of the foot, the said edge entering the said grooves of the flanges, whereby the cover is firmly secured to the foot. The notches C' C' also permit the foot to be readily engaged in removing the cover from it.

It will be readily understood that when the cup is collapsed the cover is applied to it and snapped over its foot, which then forms one member of an inclosing box, while the cover forms the other member thereof. As thus folded and inclosed, dirt is excluded from the

cup and the same made convenient in form for carrying in the pocket or "grip."

It is of course apparent that the number of rings in the cup may be varied, as well as
5 some details of its construction. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at
10 liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. In a telescopic cup, the combination with a series of differentiated rings including a cup-like ring which is constructed with a central inwardly-extending boss, and a foot constructed with a central inwardly-projecting
20 boss fitting into that of the ring, the two bosses

being upset for securing the foot to the cup-like ring, substantially as set forth.

2. In a collapsible telescopic cup, the combination with a series of differentiated rings including a cup-like ring, of a disk-shaped
25 foot secured to the cup-like ring, and a cover adapted to fit over the differentiated rings and having two elastic flanged members adapted to be engaged with the edge of the
30 disk-shaped foot which forms one member of an inclosing box, the other member of which is formed by the cover, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib-
35 ing witnesses.

JOHN LINES.

Witnesses:

M. L. SPERRY,
T. R. HYDE, Jr.