E. CROFT.

UMBRELLA TIP-CUP.

No. 192,638. Patented July 3, 1877.

Fig. 1.

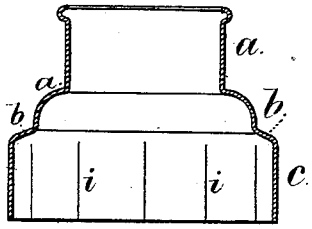


Fig. 2.

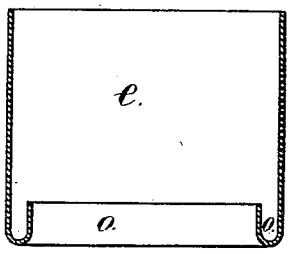
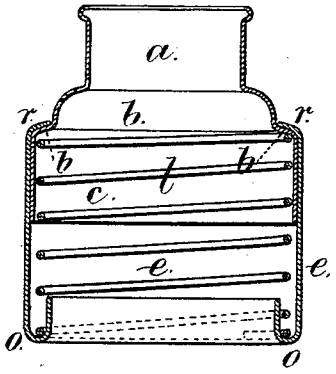


Fig. 3.



Witnesses

Chas. H. Smith

Harold Serrell.

Inventor

Edward Croft.

per Lemuel W. Serrell

Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD CROFT, OF WATERBURY, CONNECTICUT, ASSIGNOR TO WATERBURY MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN UMBRELLA TIP-CUPS.

Specification forming part of Letters Patent No. **192,638**, dated July 3, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, EDWARD CROFT, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in Tip-Cups for Umbrellas and Parasols, of which the following is a specification:

Tip-cups have been made with a friction-spring to retain the cup in position, and helical springs have been employed to press the tip-cup endwise upon the ribs.

My invention relates to a cylindrical sliding tip-cup, in combination with a stationary thimble, flange, and cylindrical guide within the tip-cup, to support the same, and on which the tip-cup is movable endwise. I also fold the lower edge of the tip-cup inwardly, to strengthen the edge of the metal, to prevent its injuring the umbrella fabric or tips, and to form an annular recess for the helical spring of the tip-cup.

In the drawing, Figure 1 is a section of the cylindrically-flanged thimble. Fig. 2 is a section of the tip-cup; and Fig. 3 is a section of the parts complete, as applied to an umbrella-handle, the parts being shown in enlarged size.

The thimble or short cylinder *a* is of a size adapted to fit upon an umbrella-handle or stick, and the flange *b* connects the thimble *a* and cylindrical guide *c*. These are preferably made of one piece of sheet metal, and more or less ornamented by ribs or beads.

The cylindrical guide *c* is of a size to fit the inside of the cylindrical tip-cup *e*, so that the same may be moved back and forth upon this cylindrical guide *c*, and to increase the friction the guide *c* may be made with longitudinal incisions, as at *i*, to form a frictional guide that fits with the required closeness the inside of the tip-cup.

The edge of the tip-cup is stiffened and strengthened by the sheet metal being folded inwardly at *o*, to form a rounded edge and an annular recess between the surfaces of the metal. This prevents the edges of the metal injuring the fabric of the umbrella or the tips. It also strengthens the cylindrical cup and maintains its shape, and when a helical spring, *l*, is made use of, the end convolutions thereof are retained within this annular recess.

The other end of the spring *l* passes within the cylindrical guide *c*, and the tip-cup is held to the flanged guide by the end being contracted or bent inwardly, as at *r*.

I claim as my invention—

1. The cylindrical tip-cup with the metal at the edge, that comes into contact with the ribs, folded inwardly to strengthen the cup and form an annular recess, substantially as and for the purposes set forth.

2. The cylindrical thimble *a*, flange *b*, and cylindrical guide *c*, in combination with the cylindrical tip-cup *e*, that surrounds and slides upon the cylinder *c*, substantially as specified.

3. The combination, with the cylindrical guide *c* and cylindrical tip-cup *e*, of the helical spring *l*, one end of which passes into the annular recess of the tip-cup, and the other within the cylindrical guide *c*, substantially as set forth.

Signed by me this 31st day of May, A. D. 1877.

EDWARD CROFT.

Witnesses:

EDWARD F. COLE,

A. C. NORTHROP.