

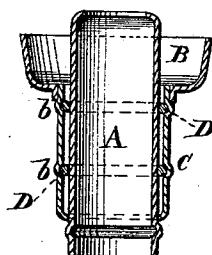
O. M. SMITH.

UMBRELLA TIP-CUPS.

No. 185,357.

Patented Dec. 12, 1876.

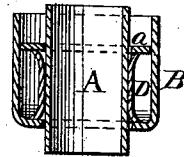
*Fig. 1.*



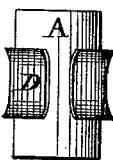
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES

*Frank L. Outland*  
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# UNITED STATES PATENT OFFICE

ORREN M. SMITH, OF FRANKFORD, PENNSYLVANIA, ASSIGNOR TO SAML. W. EVANS AND SAML. W. EVANS, JR., (DOING BUSINESS AS S. W. EVANS & SON,) OF SAME PLACE.

## IMPROVEMENT IN UMBRELLA TIP-CUPS.

Specification forming part of Letters Patent No. **185,357**, dated December 12, 1876; application filed November 25, 1876.

*To all whom it may concern:*

Be it known that I, ORREN M. SMITH, of Frankford, in the county of Philadelphia and in the State of Pennsylvania, have invented certain new and useful Improvements in Umbrella Tip-Cups and Tip-Cup Runners; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to tip-cups for umbrellas; and it consists in one or more friction-springs of suitable construction interposed between the sliding cup or its tubular extension, and the interior tube forming the body of the runner or tip-cup body for retaining the cup in any position, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of a tip-cup embodying my invention. Fig. 2 shows the form of spring used therein. Figs. 3 and 4 show a different kind of spring used for the same purpose.

A represents the sleeve or tube, which forms the body of the runner, or is fastened to the staff of the umbrella. B is the tip-cup sliding directly upon the tube A, or provided with a tubular extension, C, sliding thereon.

D represents a spring interposed between the tube A and the cup B, or its extension C, to create friction, and thereby hold the cup in any desired position on the tube A. This spring D may be made of flat spring metal of suitable length encircling the tube A, and held by the end of the cup, and the washer a fastened in said cup; or such spring may be simply a piece of spring wire, flat or round, and inserted or sprung into grooves or knurls b on the extension C, as shown in Fig. 1.

I do not confine myself to any particular form or number of springs, as any spring or springs that will create friction when interposed between the parts will answer the purpose of my invention.

This spring-friction is not liable to give way, but will always work smoothly and in any desired position, thereby making it an easy matter to insert the ribs into the cup and hold the cup in place.

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

A friction spring or springs interposed between the tube A and the tip-cup or its tubular extension, as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of November, 1876.

ORREN M. SMITH.

Witnesses:

JOHN SHALLCROSS,  
JOSEPH D. PETERS.