

O. M. SMITH.

UMBRELLA-RUNNERS AND TIP-CUPS.

No. 186,630.

Patented Jan. 23, 1877.

Fig. 1.

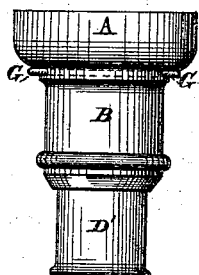


Fig. 3.

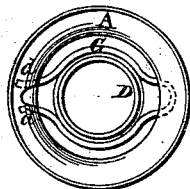


Fig. 4.

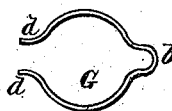
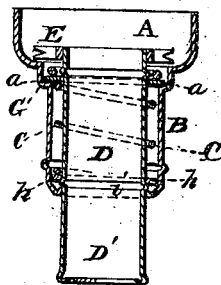


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

ORREN M. SMITH, OF FRANKFORD, PHILADELPHIA, PA., ASSIGNOR TO
S. W. EVANS AND S. W. EVANS, JR., OF SAME PLACE.

IMPROVEMENT IN UMBRELLA-RUNNERS AND TIP-CUPS.

Specification forming part of Letters Patent No. **186,630**, dated January 23, 1877; application filed
December 13, 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.

The nature of my invention consists in the construction and arrangement of a tip-cup and tip-cup runner for umbrellas and parasols, 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 side elevation of my invention. Fig. 2 is a longitudinal section of the same. Figs. 3 and 4 are detailed views of parts thereof.

A represents the tip-cup, provided with the cylinder-extension B, inclosing the spring C, which surrounds the runner D, said runner-tube having the notched ring E secured to its upper end. These parts are substantially the same as ordinarily used in this class of tip-cups.

On the tube D, below the ring E, is placed a loose flat washer, *a*, against which the upper end of the spring C has its bearing. This washer is held in the bottom of the cup A by means of a spring-holder, G, constructed as shown in Fig. 4, of a single piece of wire or flat metal, bent in the center to form the projection *b*, and the ends of the curved arms *d* *d*, bent as shown in said figure.

The center projection *b* is inserted in a slot in one side at the bottom of the cup, and the ends *d* *d* are sprung into a slot in the opposite side of the cup. This spring-holder retains the runner in the cup in its proper place, re-

taining itself in the slots, as shown, making a good strong holder to prevent any possibility of the cup being separated from the body while in operation, as is the case when knurled in or soldered in in the common way. This holder can be readily removed at any time to repair the runner or any other purpose, being simple in construction, and effective in purpose.

The runner-tube D is extended beyond the end of the tip-cup extension B, as shown at D', so that when the umbrella is closed the extension part D' of the tube will cover the joint between the handle and the stick, forming a brace for the same, as well as a finish and ornament for the umbrella or parasol. The other end of the spring C bears against a loose washer, *h*, which is held on the tube D by a bead, *i*, formed thereon. This washer prevents the spiral spring from slipping over the head, and it obviates the necessity of soldering the end of the spring to the tube D.

My invention is equally applicable in cases where the tube B simply forms the body of the tip-cup.

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

1. In combination with the tip-cup A, having extension B, spring C, and tube D, a removable spring-holder arranged in the bottom of the cup, for the purposes herein set forth.

2. The combination of the tube D, formed with the bead *i*, the washer *h*, and spring C, all constructed as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of December, 1876.

ORREN M. SMITH.

Witnesses:

J. M. MASON,
W. T. JOHNSON.