O. M. SMITH.

UMBRELLA TIP-CUPS.

No. 183,982. Patented Oct. 31, 1876

Fig 1

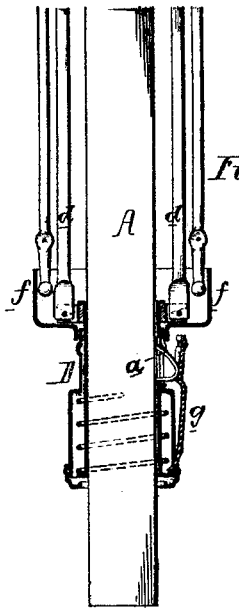


Fig. 4.

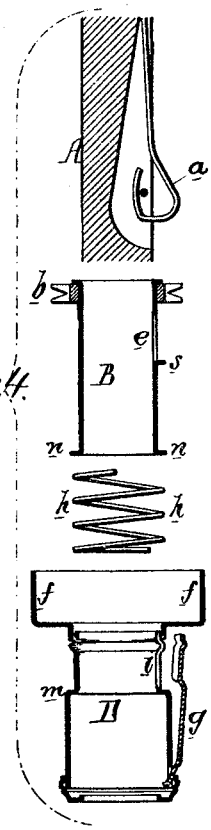


Fig. 2.

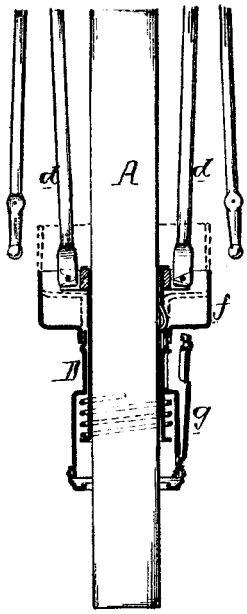
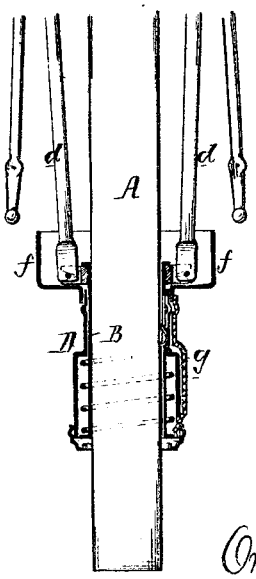


Fig. 3.



Witnesses
Hermann Moessner
Harry Smith

Orren M. Smith
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE.

ORREN M. SMITH, OF PHILADELPHIA, PA., ASSIGNOR TO EDMUND WRIGHT, JOSEPH WRIGHT, JOHN WRIGHT, AND JOHN NOBLE, OF SAME PLACE, AND JACOB H. FILSON, OF NEW YORK CITY.

IMPROVEMENT IN UMBRELLA TIP-CUPS.

Specification forming part of Letters Patent No. **183,982**, dated October 31, 1876; application filed September 30, 1876.

To all whom it may concern:

Be it known that I, ORREN M. SMITH, of Philadelphia, Pennsylvania, have invented certain Improvements in Combined Umbrella Runners and Retainers, of which the following is a specification:

The main object of my invention is to so construct a combined umbrella-runner and tip-retainer that it may be applied to umbrellas having the usual bent-wire spring, the latter serving to hold both the runner and retainer in position; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical sectional view of my combined umbrella-runner and tip-retainer, showing both parts locked by the bent spring; Fig. 2, a view showing the tips released from the control of the retainer; Fig. 3, a view showing the parts in position for hoisting the umbrella, and Fig. 4 a view showing the various parts detached from each other.

The stick A of the umbrella has the usual bent-wire spring *a* secured within a recess in the same, and on this stick slides the usual runner B, which has at the upper end the notched plate *b*, for receiving the lower ends of the stretchers *d*, the runner being recessed on one side at *e*, for the reception of the said wire spring.

Surrounding the runner B, and so fitted to the same as to move freely thereon, is a slide, D, which is enlarged at the upper end so as to form the usual cup *f*, for retaining the tips of the ribs when the umbrella is closed, as in Fig. 1. In one side of the slide D, at a point in line with the recess *e* of the runner, is formed a recess, *i*, and to the lower end of the slide on the same side is secured the lower end of a spring-plate, *g*, the upper end of which is in line with the recesses *e* and *i*, so that when it is pressed toward the stick it will force the spring *a* inward and allow the runner and retainer to be raised. In order to prevent the slide D from turning on the runner to such an extent that its slot *i* is brought out of line with the slot *e*, a lug, *s*, is formed on the runner, and this lug projects into the recess *i* and holds the slide firmly in place as far as lateral movement is concerned. The slide D is held up so that its cup *f* will cover the tips, partly by means of the spring *a*, and partly by means of a spiral spring, *h*, interposed between an internal shoulder, *m*, on the slide, and a flange, *n*, at the lower end of the runner.

When it is desired to raise the umbrella, the parts being in the position shown in Fig. 1, the slide D is first drawn down so as to release the tips, as shown in Fig. 2, this movement being accompanied with but slight effort, owing to the fact that the upper edge of the slot *i* bears upon the inclined portion of the wire spring *a*.

After the tips are released, the slide D is allowed to spring back, as shown by dotted lines, Fig. 2, and then by pressing upon the spring-arm *g* the spring *a* is forced inward so as to permit the passage over the same of the runner, which carries with it the slide D.

It will be evident that by thus combining the retainer with the runner, and by slotting both for the reception of the spring *a*, not only is the retainer out of the way when the umbrella is hoisted, but the spring *a* aids the spring *h* in keeping the retainer in place over the tips when the umbrella is closed.

I claim as my invention—

1. The combination of the umbrella-stick A and its spring *a* with the runner B, the retainer-slide D, and the intermediate spring *h*, both runner and slide being slotted for the reception of the spring *a*, as set forth.

2. The combination of the slide D and its slot *i* with the runner B and its lug *s*, as set forth.

3. The combination of the slide D, having a slotted neck for the reception of the spring *a*, and a shouldered portion below the same, with the runner B, its flange *n*, and the spring *h*, as set forth.

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

ORREN M. SMITH.

Witnesses:
HERMANN MOESSNER,
HARRY SMITH.