



# United States Patent Office.

DURWARD ADAMS, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 100,582, dated March 8, 1870.

## IMPROVEMENT IN UMBRELLAS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, DURWARD ADAMS, of Boston, in the county of Suffolk, and State of Massachusetts, have invented an Improvement in Umbrellas and Parasols, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a central vertical section, representing my improvement applied to an umbrella when open and ready for use.

Figure 2 is a central vertical section through a closed umbrella, showing the position or relation of my improvement thereto just previous to its being opened.

Figure 3 represents the position of my improvement when the umbrella is to be set aside and is not required for use.

My invention has for its object to provide an umbrella or parasol which shall instantly spring open when required, by means of elastic rubber springs or bands; and

My invention consists in the application of rubber springs leading from the staff or handle, or a sleeve thereon, to the braces or runner, or both, the springs being distended when the umbrella or parasol is closed, so that when the catch is pressed in, the runner will be drawn up and the braces thrown out by the recoil of the springs, thereby opening the cover as required.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings—

A is the staff or handle, B B the braces, C C the ribs, D the cover, E the runner, G the lower catch, and H the upper catch, all constructed in a well-known manner.

I I are rubber springs, one end of each of which is secured by a ring or otherwise to one of the braces B, the opposite end of the spring being secured to a sleeve,

K, surrounding the staff or handle A, the sleeve being held in place by a catch, *a*.

J is also a rubber spring, one end of which is secured to the sleeve K, while its other end, instead of being secured to one of the braces, is connected directly with the runner.

When the umbrella is closed, the springs I J are distended and held in this position (see fig. 2) by the lower catch G, which passes through the side of the runner E.

On pressing in the lower catch the runner is released, when the recoil of the springs I J will instantly draw it up and throw out the braces B B, thereby opening the umbrella without the necessity of employing both hands, as heretofore.

To relieve the tension on the springs when the umbrella is to be set aside and is not required for immediate use, it is simply necessary to press in the catches H and *a* and slide the sleeve K over them, when it will be drawn down by the closing of the umbrella without extending the springs.

Instead of employing a sliding sleeve, K, the springs may be secured directly to the handle, their opposite ends being secured to the braces and runner by means of hooks, which may readily be detached when the umbrella is to be set aside.

### Claim.

What I claim, and desire to secure by Letters Patent, is—

The India-rubber springs I J, in combination with the braces B B, ribs C C, and the runner E, when constructed and arranged substantially as and for the purpose set forth.

DURWARD ADAMS.

Witnesses:

P. E. TESCHEMACHER,  
N. W. STEARNS.