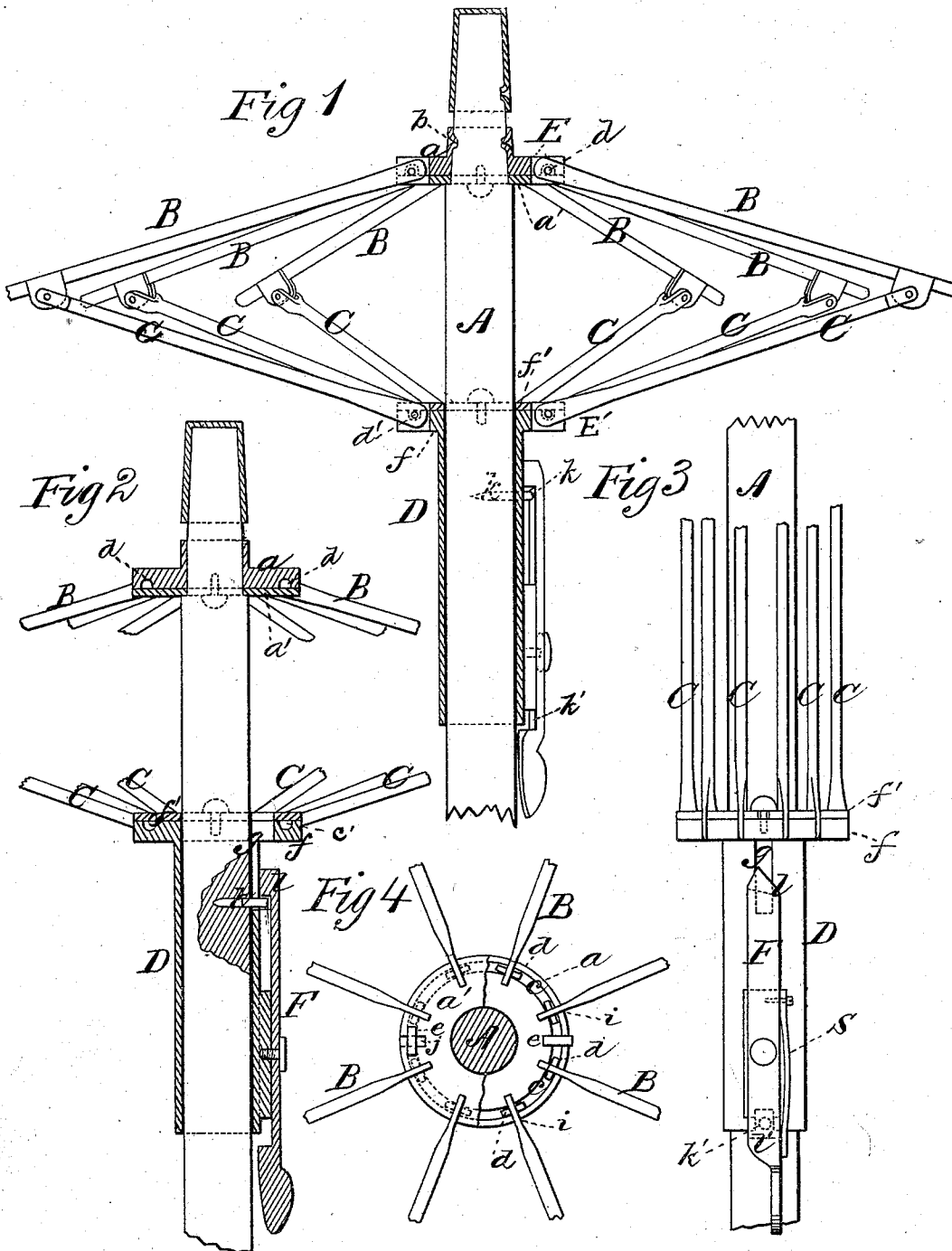


J. J. EUBANK.
 UMBRELLA-RUNNER.

No. 173,926.

Patented Feb. 22, 1876.



WITNESSES

Villette Anderson.
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JOHN J. EUBANK, OF LEXINGTON, KENTUCKY.

IMPROVEMENT IN UMBRELLA-RUNNERS.

Specification forming part of Letters Patent No. **173,926**, dated February 22, 1876; application filed January 8, 1876.

To all whom it may concern:

Be it known that I, JOHN J. EUBANK, of Lexington, in the county of Fayette and State of Kentucky, have invented a new and valuable Improvement in Umbrellas; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1 and 2 of the drawings are representations of vertical sections of my umbrella, and Fig. 3 is a front view thereof. Fig. 4 is a horizontal sectional view of the same.

This invention has relation to improvements in umbrellas; and it consists in a spring-catch pivoted to the runner, and adapted to engage automatically with a pin arranged near the upper part of the stick, for the purpose of holding the ribs open, and with a second pin near the handle, for keeping the umbrella closed. It also consists in certain novel means for securing the ribs and braces to the notched collars, as will be hereinafter more fully explained.

In the annexed drawings, the letter A designates an umbrella-stick. B are metallic ribs; C, the braces, and D the runner. The braces are provided at their upper ends with eyes of the usual construction, and are secured to the upper collar E in the following manner, to wit: This collar is composed of two plates, *a* and *a'*, of circular form, each of which is provided with a central aperture adapted to receive the umbrella-stick. Plate *a* is provided with a collar, *b*, by means of which it is secured to the stick, and upon its under side is annularly grooved, as shown at *c*, Fig. 4. It has also a number of radial notches, *i*, cut in its edges, equal to the number of ribs designed to be used, which notches extend through the annular groove a certain distance into the interior of the said plate, to allow the ribs sufficient play. Ribs C are confined to plate *a* by means of short pins *d*, which pass through the eyes in their ends, and are seated in the annular groove *c*, which pins are prevented from escaping from the said-groove by means of plate *a'*, which is secured to plate *a* over the ends of ribs C by means of turn-buttons *e*. These

buttons are provided with enlarged heads, which, when turned in a certain direction, will be at right angles to a slit, *j*, cut in plate *a'*, and will thus prevent the said plate from being casually detached from the upper plate *a*; but when they are turned in line with the said slits the lower may be readily detached from the upper plate, and a worn-out or broken pin, *d*, easily replaced. The effect of this construction is that the breaking of a confining-pin, *d*, will not disable the umbrella, as would be the case where the wire is employed for confining the ribs to the collar.

The runner—designated by the letter D—is provided upon its upper edge with a plate, *f*, corresponding exactly in construction with plate *a*, and the ends of the braces C will be confined to the plate *f* by a plate, *f'*, corresponding with plate *a'* above described. The lower plate *f* of the collar E' is provided with a groove, *c'*, similar to that shown in Fig. 4, and the ends of the said braces being provided with pins *d'*, the functions of which are precisely the same as pins *d*. Braces C are pivoted, in the usual well-known manner, to ribs B. Consequently, when the runner is raised the ribs will be extended and the covering expanded.

The ribs are held in position for holding the umbrella open or closed in the following manner, to wit: The umbrella-stick is provided, at a suitable distance from collar E, with a locking-pin, *k*, and at a suitable distance from the handle with a second pin, *k'*, the functions of which will hereinafter appear; and runner D is provided with a slot, *g*, extending through plates *f* and *f'* of the runner, so that upper pin *k* may enter the said slot when the runner is raised in the act of opening the umbrella. When the pin *k* enters the slot in the runner D it will come in contact with the beveled head *l* of a vertically-vibrating catch, F, pivoted at or near the center of its length to the runner, and it will be turned aside until the pin has passed the head, when the reaction of a spring, S, will cause the shouldered head of the said catch to engage with the said pin automatically, and will hold the umbrella expanded.

When it becomes necessary to lower the umbrella, catch F is disengaged from pin *k* by

hand, and the apparatus is caused to collapse in the ordinary manner, when the oppositely-beveled head *U* of the catch will strike pin *k'*, turning it to one side until the said head has passed the pin, when, as before, the reaction of spring *S* will cause the head to engage with the pin, and will hold the umbrella closed.

The lower plates *a' f'* of collars *E E'* are radially notched to correspond with plates *a f*. Consequently the ribs *B* and braces *C* will be capable of folding inwardly very closely to the stick *A*.

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

1. In an umbrella, in combination with the stick *A*, having pins *k k'*, the runner *D*, having vertically-vibrating catch with beveled shouldered heads *i i'*, substantially as specified.

2. In combination with the stick *A*, having

locking-pins *k k'*, and the slide or runner *D*, having slot *g*, the spring-actuated and vertically-vibrating catch *F* and spring *S*, substantially as specified.

3. In an umbrella, a runner, *D*, having the collar *E'* radially notched and provided with an annular groove, *c'*, the radially-notched plate *f'* and turn-buttons *e*, in combination with the braces *C*, provided with pivotal pins *d'*, whereby any one of the braces can be readily removed or inserted in its seat without affecting the others, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN JAMES EUBANK.

Witnesses:

S. G. CALVERT,

JOHN B. RICHARDSON.