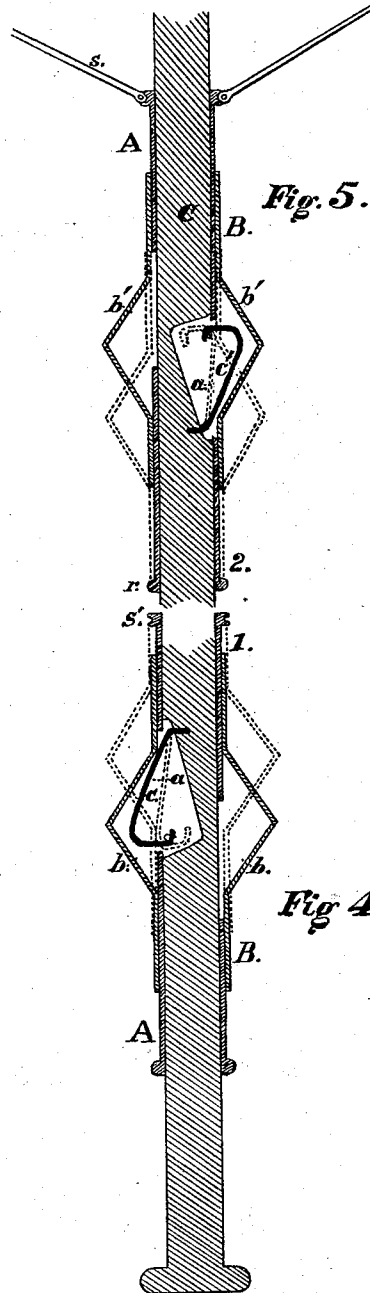
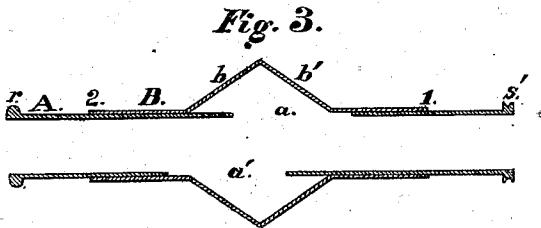
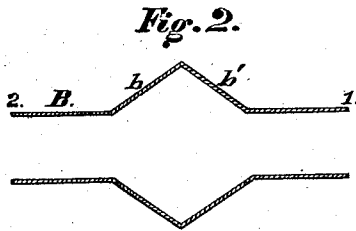
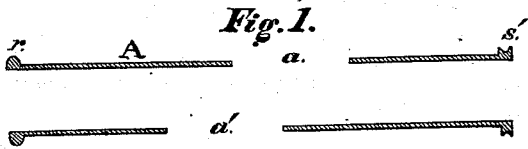


J. J. HIGGINS.
Umbrella-Runners.

No. 157,915.

Patented Dec. 22, 1874.



WITNESSES

J. D. Lee,
C. F. Hurlitz.

INVENTOR

John J. Higgins

UNITED STATES PATENT OFFICE.

JOHN J. HIGGINS, OF NEW YORK, N. Y.

IMPROVEMENT IN UMBRELLA-RUNNERS.

Specification forming part of Letters Patent No. **157,915**, dated December 22, 1874; application filed August 22, 1874.

To all whom it may concern :

Be it known that I, JOHN J. HIGGINS, of the city of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Umbrella-Runner; and I do hereby declare that the following is a full, clear, and exact description thereof, and of its construction and mode or manner of operation, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification.

My invention consists in such a construction of runner as enables the umbrella to be raised or dropped by simply moving the runner, without requiring a separate action of the hand to press in the springs which are used to hold the umbrella closed or expanded.

Figure 1 shows the inner runner-tube, in which are the slots which receive the springs in the stick. Fig. 2 shows the outer tube, which moves upon the inner one. Fig. 3 shows the two in proper position within and upon each other. Fig. 4 illustrates the action of the outer tube to raise the umbrella. Fig. 5 illustrates the action of such outer tube to lower the umbrella.

The construction of the several parts of my improved runner is as follows: The inner tube A of the runner has fixed to its upper end the stretchers, as in ordinary cases, and is substantially like the runner usually used, except that it is longer than the common runner, and has cut through it two slots, *a a'*, instead of but one, to receive the two springs *c c'*, fitted in the stick C, and which keep the umbrella closed or expanded. Over such tube A is an outer tube, B, which is somewhat shorter than A, and slides up and down upon it, and is swelled or expanded at or about its middle, substantially as shown in Fig. 2, sufficiently to allow the springs *c c'* to be fully expanded or thrown out when such swelled part is over either of such springs, at which time the outer tube also entirely conceals the spring.

The action or operation of such improved runner is as follows: When the umbrella is shut, and it is desired to open or raise it, it is not necessary to press, with the thumb or finger, the spring *c* down through the slot *a* and into the spring-recess in the stick, as has to

be done in ordinary umbrellas, to allow the runner-tube to be pushed up; but the outer tube B is moved upward and upon the tube A until its upper end 1 comes in contact with the stretcher-rim *s'*. The first upward movement of such outer tube B brings the inclined surface or face *b* of its swelled portion against the spring *c*, and presses such spring into the stick, so the tube A can pass over it as if the spring were forced in by the thumb or finger; and then the further upward movement of such outer tube carries the inner slotted tube along with it over the spring, and thus raises or opens the umbrella, as in ordinary cases. A continued movement in the same direction of the two tubes of the runner, in the manner described, thus performs the two offices of first pressing in the holding-spring and then carrying up the inner tube, which expands the umbrella. When the umbrella is fully expanded the upper slot *a'* in the tube A is brought over the upper spring *c'* of the stick, and such spring passes into such slot and holds the umbrella open.

When it is desired to close the umbrella a similar movement of the runner-tubes takes place, but in an opposite direction. The outer tube B is first moved downward, which motion brings the inclined surface or face *b'* of its swelled portion against the spring *c'*, and presses it into the stick. This is effected when the lower end 2 of such tube strikes against a rim or lip, *r*, on the lower end of the inner tube A; and the further downward movement of such outer tube carries such inner tube along with it over the spring, and closes the umbrella. When the umbrella is fully closed the slot *a* in the inner runner-tube is brought over the spring *c*, which at once expands into or flies out through such slot, and thus holds the runner and secures the umbrella from opening until the outer tube is again moved upward, as described, to release the spring and allow the umbrella to be opened.

But a single motion or continued movement of the runner-tubes in one direction is thus required either to open or shut the umbrella.

The use of this improved runner not only adds much to the utility of the umbrella in the convenience and facility of operating or manipulating the umbrella, but the outer tube

also protects the springs, particularly the lower one, which are, therefore, less liable to get bent or displaced, and thus rendered more or less useless, and also prevents the catching of anything on or over the spring, to the inconvenience of the user. It also adds to the beauty and general appearance of the article.

This arrangement and operation of runner-tubes is alike applicable to parasols and sunshades, &c., or umbrellas of any size or description.

The inner runner-tube A may also be made shorter, and with a single slot, substantially as used in ordinary umbrellas; but, with such construction of inner tube, the outer tube

would have to be retained upon and over the inner one by some device, as by a lip or rim on the inner tube, against which the angle or point *p* of the outer tube may strike, or by any convenient device for such purpose.

What is claimed as new is—

In combination with the stick C and springs *c c'* of an umbrella, the runner composed of the inner tube A and outer tube B, all constructed and arranged to operate substantially as and for the purpose set forth.

JOHN J. HIGGINS.

Witnesses:

S. D. LAW,

A. T. GURLITZ.