

F. E. WALCOTT & C. H. BERRY.

Folding-Umbrellas.

No. 131,916.

Fig. 1.

Patented Oct. 1, 1872.

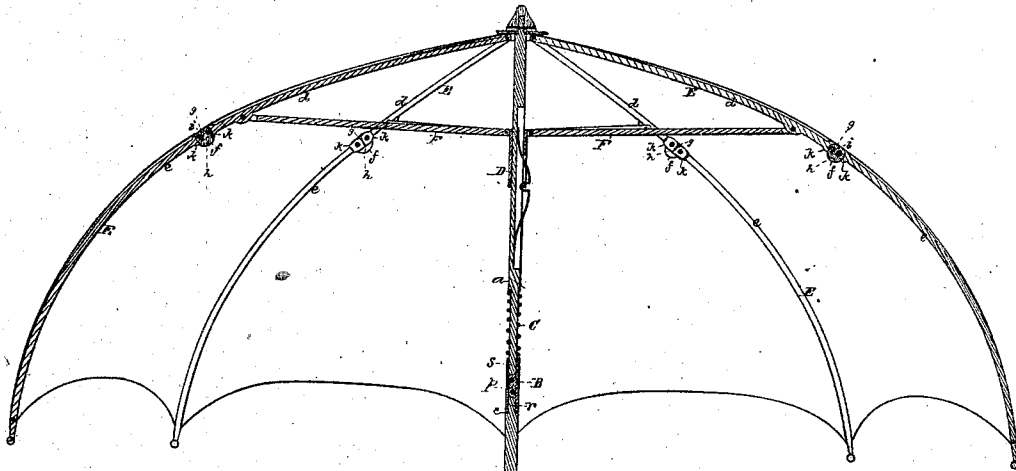


Fig. 2.

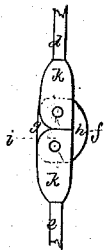
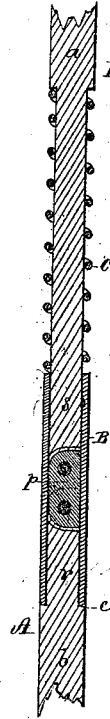


Fig. 3.



Fig. 4.



Witnesses.
S. N. Piper
L. N. Keller

Frank E. Walcott & C. H. Berry.
by their attorney
N. W. Brady

UNITED STATES PATENT OFFICE.

FRANK E. WALCOTT AND CHARLES H. BERRY, OF NATICK, MASSACHUSETTS.

IMPROVEMENT IN FOLDING UMBRELLAS.

Specification forming part of Letters Patent No. 131,916, dated October 1, 1872.

To all whom it may concern:

Be it known that we, FRANK EDWARD WALCOTT and CHARLES HEZLETON BERRY, of Natick, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Folding Umbrellas; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a transverse section of an umbrella provided with our invention; Fig. 2 is a side view of its rib-joint; Fig. 3 is a side view; and Fig. 4, a longitudinal section of the stick-joint and parts adjacent thereto—the three figures last mentioned being on a larger scale than the first.

The stick A of the said umbrella is in two parts, *a b*, jointed together by a connection piece, *p*, each part, for a short distance from the joint, being reduced in diameter, as shown at *r s*, to receive a tubular slide, B, having a diameter equal to that of the stick. Encompassing the part *a* of the stick above the slide B is a helical spring, C, whose diameter is equal to that of the slide. This spring serves two purposes, viz.: To hold the slide down against the shoulder *c*, and as a guide for the runner D to and upon the tubular slide B, the spring preventing the runner from catching against the upper end of the slide-tube. Like other folding umbrellas, each rib E is made in two pieces or elastic rods, *d e*, jointed together by a connection piece, *f*, pivoted to both of the rods. In order that the said connection piece may operate to prevent the cloth covering of the umbrella-frame from being caught in the joint of the rods, we make the connection piece with arcal portions *g h*, to project be-

yond an intermediate part, *i*, having a width to correspond with those of the joint parts *k k*, which are directly attached to the rib-portions *d e*. The arcs *g h*, whether of a circle, or ellipse, or analogous figures, serve not only to prevent the cloth from catching on the joints, but from being cut or worn through by the joints. This little improvement in the joint is one of much value and utility. Furthermore, each brace-bar F, jointed to and projecting from the runner, we pivot to the upper rib-rod *d* at about one inch and a half from the joint connecting the two rods *d e*. This, when the umbrella is spread open, or the two parts *d e* are in line with each other, effectually prevents the rods *e* from being turned back upon the rods *d* by the wind when the umbrella may be in use.

We make no claim to a folding umbrella made with its stick and each rib formed of two pieces or rods connected by a joint piece in order that the parts of the ribs and stick may be folded upon each other, such parts being provided with a receiver, and a series of brace-bars, and a tubular slide, all as set forth.

What we claim as our invention is as follows, viz.:

The two parts *a b* of the stick A, reduced at and from the joint, as shown at *r s*, and provided with the spring C and slide-tube B, constructed and arranged with them as represented, in order to serve as guides to the runner D to and across the joint.

FRANK E. WALCOTT.
CHAS. H. BERRY.

Witnesses:

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