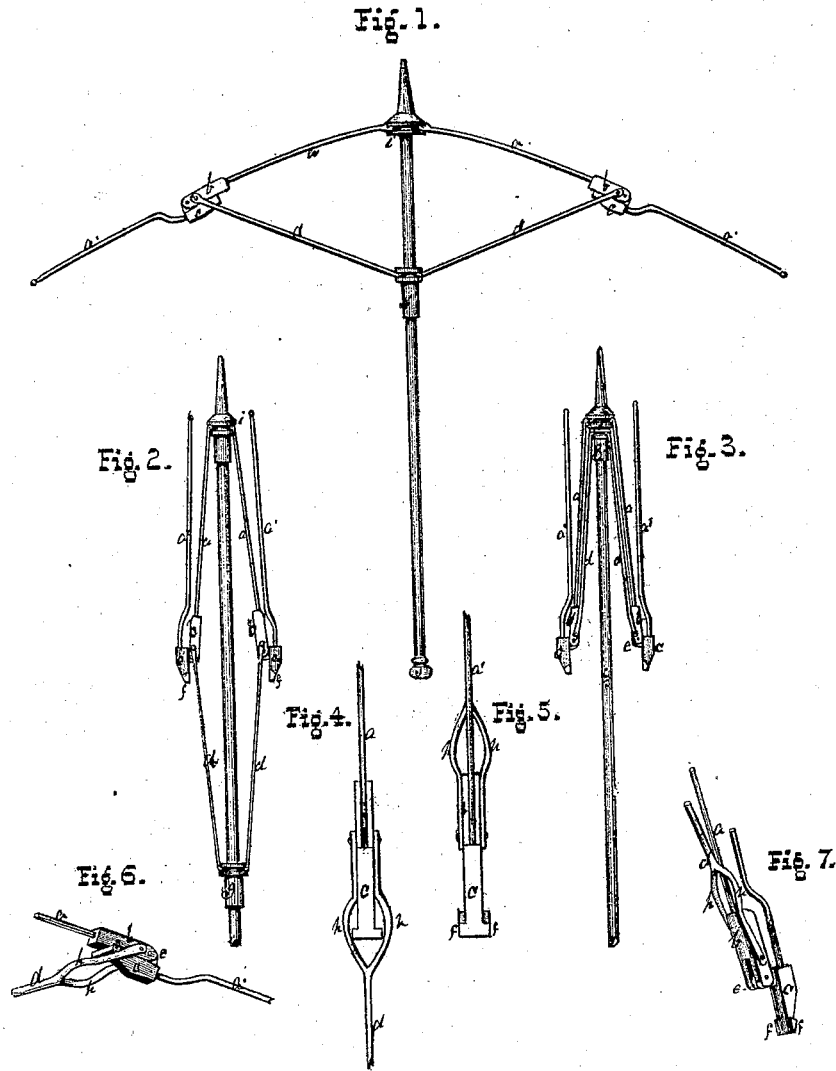


A. S. Hubbell, Umbrella.

No. 110,918.

Patented Jan. 10, 1871.



Witnesses.

H. Poole
W. S. Davis

Inventor.

Almon S. Hubbell
By J. B. Woodruff
Attorney

United States Patent Office.

ALGERNON S. HUBBELL, OF NORWICH, CONNECTICUT.

Letters Patent No. 110,918, dated January 10, 1871.

IMPROVEMENT IN JOINTS FOR FRAMES OF FOLDING-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, ALGERNON S. HUBBELL, of Norwich, in the county of New London and State of Connecticut, have invented a certain new and useful Improvement in Joints for the Frames of Folding-Umbrellas and Parasols; and the following is full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents the staff-cap and slide, showing two of the jointed ribs with their lock-braces in their position when the umbrella is spread.

Figure 2 is a view of the same, showing the frame in position when the umbrella is closed, with the braces brought toward the handle and the jointed ribs turned back.

Figure 3 is another view of the same, showing both the ribs and braces turned toward the tip for holding the same in small compass.

Figure 4 shows an outside view of the rib and brace-joint or double hinge.

Figure 5 shows an inside view of the same as folded.

Figure 6 shows an enlarged view, in perspective, of the double hinge lock-joint as opened.

Figure 7 is a view of the same as folded up for packing the umbrella in a small compass or space.

My invention relates to folding-umbrellas and parasols, for the purpose of shortening their length, so that they may easily be packed and carried in a traveling-bag or hand-trunk; and

My improvement consists in the construction of the rib-joints in their connection with and relation to the brace and the brace-joint, so that the one supports the other when the umbrella is spread, and holds the frame so firmly that it is not likely to be turned inside out, while it admits the ribs or stretchers to be folded back over the outside, and the braces and slide to fold up inside, so as to shorten the whole to one-half of its length.

To enable others to make and use my improved

umbrella frame, I will describe it more fully, referring to the drawing and the letters marked thereon.

The ribs *a a'* or stretchers, which form the frame for the covering, are provided with a substantial joint-piece, *b*, to which the brace *d* is riveted, so as to operate in the usual manner to open and close the umbrella.

The outer or extended portion of the rib or frame *a'*, which is designed to fold over, is also provided with a block, *c*, on the under side of which is a lug, *e*, projecting sufficiently to connect with the piece *b*, and form the hinge for the folding-frame.

On the end of the block *c* are ears or small flanges *f f*, projecting out on both sides a sufficient distance to lock against the sides of the bow or fork of the brace *d* back of where it is pivoted to the joint-piece *b*, which holds the rib *a a'* very stiff when the umbrella is spread. The fork of the brace *d* is spread open to form a bow, *h h*, sufficiently wide to let the ears *f f* pass through between the prongs, when the slide *g* is moved toward the handle *j* in closing the umbrella, and while in that position the outer portion of the rib *a'* is free to turn over on the outside and shorten it one-half the length of the frame; the braces *d* being also turned in, and the slide *g* moved up to the cap *i*, thus making the frame close up very compactly, as shown in fig. 3.

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

A joint for folding-umbrellas, consisting of a block, *c*, provided with ears *f f* to lock against the fork of the brace to which it is hinged, and attached to the outer portion of the stretcher, and hinged to its inner portion, the whole arranged as herein shown and described.

In testimony whereof I hereunto subscribe my name in the presence of—

ALGERNON S. HUBBELL.

Witnesses:

GEO. F. SAXTON,
K. M. HUBBELL.