

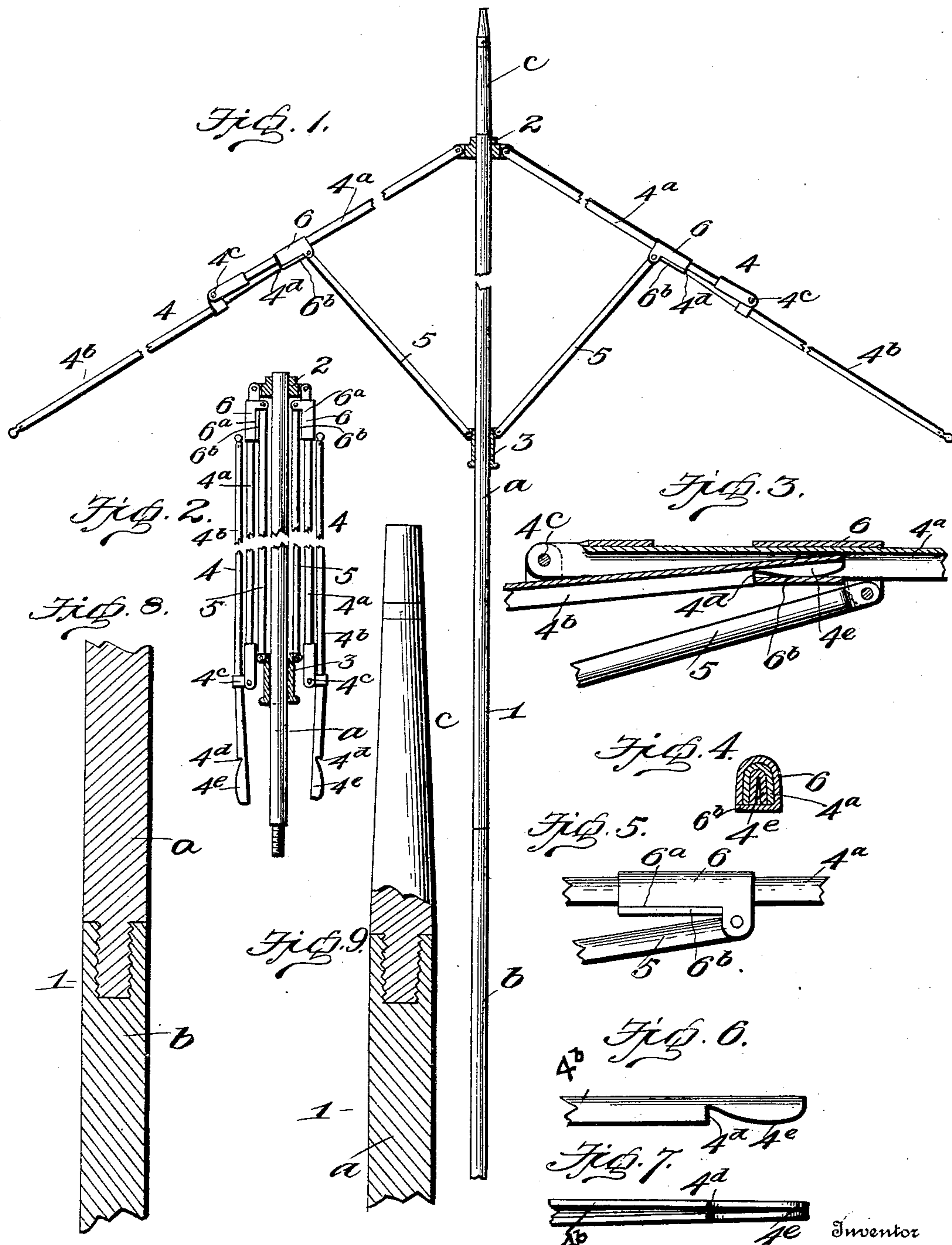
No. 677,197.

Patented June 25, 1901.

G. W. FRISBIE.  
FOLDING UMBRELLA.

(Application filed Nov. 1, 1900.)

(No Model.)



Witnesses

*E. Hunt*  
*J. Sullivan*

By

*George W. Frisbie*  
*A. B. Wilson & Co*

Inventor

Attorneys



# UNITED STATES PATENT OFFICE.

GEORGE W. FRISBIE, OF SCRANTON, PENNSYLVANIA.

## FOLDING UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 677,197, dated June 25, 1901.

Application filed November 1, 1900. Serial No. 35,164. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. FRISBIE, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Umbrellas; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to umbrellas.

The object of the invention is to provide a folding umbrella which when not in use may be folded into small compass, whereby it will take but little room and may be conveniently carried in a valise.

With this and other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, illustrating my improved umbrella-frame. Fig. 2 is a view similar to Fig. 1, showing the frame in closed position and the members folded to reduce the length of the umbrella. Fig. 3 is a longitudinal sectional view through the overlapping hinged ends of one of the ribs and the locking-sleeve. Fig. 4 is a cross-sectional view of the same parts. Fig. 5 is a side elevation of the locking-sleeve. Fig. 6 is a similar view of the outer end of the inner member of one of the ribs. Fig. 7 is a bottom plan view of the same. Fig. 8 is a sectional view through the screw-threaded joint of the two-part stick; and Fig. 9 is a sectional view through the screw-threaded joint, showing the manner of connecting the tip to the stick.

In the drawings, 1 denotes the stick; 2, the top notch; 3, the runner; 4, the rib, and 5 the spreader.

The stick is preferably made in two parts *a b*, connected together in any suitable manner, preferably by screwing one part into the other, as shown. The part *a* has at its outer end a tip *c*, which is removably connected to the upper end of the part *a* of the stick, preferably by screw-threads.

The rib 4 consists of two parts  $4^a 4^b$ , the former of which is pivoted in any well-known or approved manner to the top notch 2, and the two parts of the rib are pivoted together

in any suitable manner at point  $4^c$ . These ribs in cross-section are of the usual U shape. The extreme upper ends of the part  $4^b$  are pressed together or otherwise reduced in breadth, so as to fit within the sides of the part  $4^a$ . This part is formed with a stop-shoulder  $4^d$  and with parallel curved edges  $4^e$ , which edges when the upper end of the part  $4^b$  is located in the channel of the part  $4^a$  of the rib projects slightly beyond the edges of the side walls of said channel.

The spreader 5 has its lower end pivoted to the runner 3 in any suitable manner and carries at its upper end a hinged sleeve 6, which in cross-section corresponds to that of the rib upon which it slides, and thereby prevents twisting or turning of the rib within said sleeve. The sleeve is provided with a slit  $6^a$ , so to form a spring-tongue  $6^b$ . When the upper ends of the section  $4^b$  are between the side walls of the section  $4^a$ , the sleeve is slipped downward along the section  $4^a$  of the rib and over the extreme upper end of the section  $4^b$ , the spring-tongue riding upon the curved edges  $4^e$  and exerting a frictional action thereon to hold the sleeve in its adjusted position. The limit of the downward movement of the sleeve is effected by the lower end thereof coming in contact with the shoulder  $4^d$ .

As shown in Fig. 1, the parts are in the position they assume when the umbrella is ready for use. To change the position of the parts and reduce the size of the umbrella, as shown in Fig. 2, the locking-sleeve 6 is slipped from engagement with the upper end of the part  $4^b$  of the rib and that part of the rib is folded back from the part  $4^a$ . The sleeve is now held upwardly upon the part  $4^a$  of the rib in the position shown in Fig. 2, thus drawing the runner 3 upwardly onto the section *a* of the stick. The section *b* of the stick may now be removed and also the tip *c*, and the parts are now in position to be packed within a valise or wrapped up for storage or transportation.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood without requiring an extended explanation. The device is exceedingly useful for the purpose for which it is designed and may be

placed upon the market at a comparatively small cost.

Various changes in the form, proportion, and the minor details of construction may be  
5 resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus fully described my invention, what I claim as new, and desire to secure by  
10 Letters Patent, is—

In an umbrella-frame, the combination with the rib consisting of two parts hinged together, one part being made U-shaped in cross-section to receive the extreme upper end of the

other part, and the extreme upper end of this 15 part being formed with curved edges and a stop-shoulder, of a spreader, and a sleeve hinged to said spreader and adapted to move upon the upper part of said rib and provided with a spring-tongue to engage said curved 20 edges, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. FRISBIE.

Witnesses:

J. R. RICHARDSON,  
C. W. NOACK.