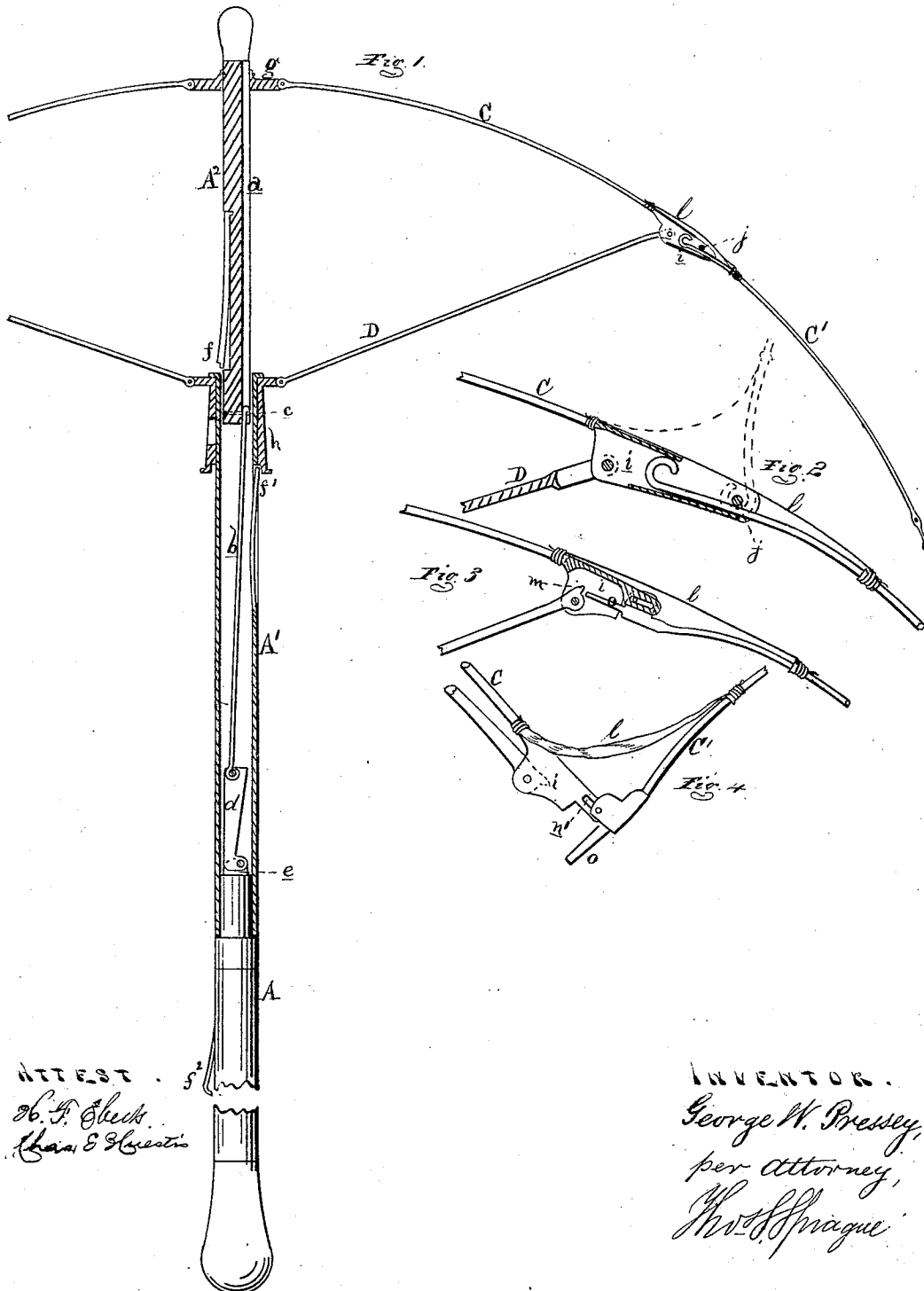


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Umbrellas.

No. 145,310.

Patented Dec. 9, 1873.



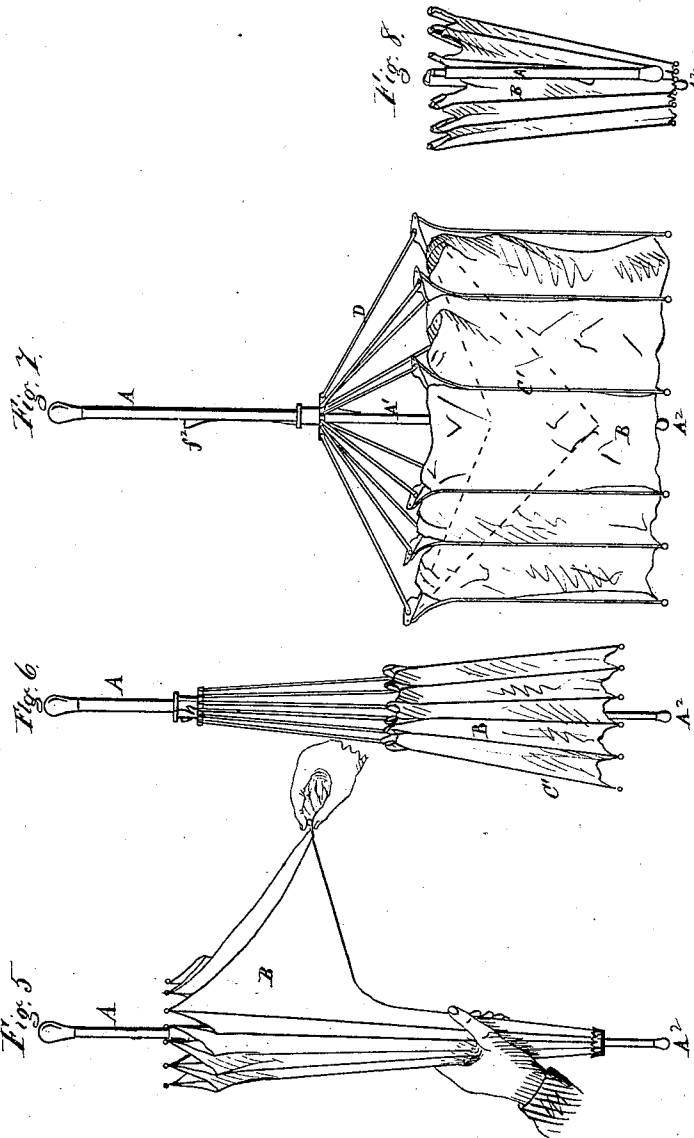
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UNITED STATES PATENT OFFICE.

GEORGE W. PRESSEY, OF HAMMONTON, NEW JERSEY.

IMPROVEMENT IN UMBRELLAS.

Specification forming part of Letters Patent No. **145,310**, dated December 9, 1873; application filed June 27, 1873.

To all whom it may concern:

Be it known that I, GEORGE W. PRESSEY, of Hammonton, in the county of Atlantic and State of New Jersey, have invented a new and useful Improvement in a Folding Umbrella; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1, Sheet 1, is a partial vertical section of my umbrella as when open. Fig. 2 is an enlarged sectional detail of a rib-joint. Figs. 3 and 4 are similar views, showing modifications of the same. Fig. 5, Sheet 2, is an elevation of the closed umbrella, showing the first step to be taken preparatory to folding it. Figs. 6 and 7 show the succeeding steps; and Fig. 8 shows the umbrella closed and folded.

Like letters refer to like parts in the several figures.

This invention has for its object to so construct an umbrella or parasol that it can be folded into a compact bundle having about one-third the length of the handle or staff, when the same is extended; and to this end it consists in the peculiar construction of the folding or jointed ribs, a jointed and telescopic staff and connections, arranged and operating as more fully hereinafter set forth.

In the drawing, A represents the solid, lower, or handle end of the staff. A¹ is a tubular extension thereof, forming the middle section, and A² is the upper section telescoped within the middle section, and has a longitudinal groove, *a*, in one side, in which runs a hooked wire, *b*, arrested by a stop-ring, *c*, near the lower end. The lower end of this wire, which passes within the tubular section, is hooked into the ends of a pair of links, *d*, whose lower ends embrace and are pivoted to an ear, *e*, projecting from the top of the section A. When protruded from the middle section, the upper section is kept extended by a leaf snap-spring, *f*, engaging with the flange at the top of said tube, the spring being recessed in the side of the top section. When this spring is compressed, the top section may be telescoped into the tube A¹, sliding upon the wire *b*, when the latter may be withdrawn from the lower

end of the tube far enough to enable the handle A to be withdrawn and folded over against the tube. The links *d*, however, carry it laterally from the tube far enough to provide for the double folds of the cover B. *g* is the flange at the top of the upper section, to which the ribs C are pivoted. *h* is the sleeve or runner sliding on the two lower sections of the staff, having pivoted to its flange a brace, D, whose outer end is pivoted to each rib. The ribs are in two parts, C C', the former being pivoted to the flange *g*, at their upper ends, while to the lower end of each is secured a flattened tubular socket, *i*, which receives the upper end of the section C' of the rib. The outer end of its brace D is pivoted to the inner corner of this socket, while its outer end is provided with a transverse pin, *j*, with which engages a hook, *k*, turned in the upper end of the rib C', when the latter is drawn out of the socket to fold it outwardly upon the rib C, as shown in dotted lines in Fig. 2, and in the figures in Sheet 2. When the umbrella is extended, the tension of the cover draws the hook into the upper part of the socket when it, and the transverse pin *j*, bearing upon two points of the outer end of the rib, hold it stiffly, practically making a single rib of the two sections.

When properly made, the tension of the cover should always be sufficient to draw the hooked ends of the ribs C' into the sockets of the ribs C; but should the cover stretch and slacken, an elastic band, *l*, may be secured to the two sections of each rib to draw them together.

Figs. 3 and 4 show a modified form of rib-joint, wherein the section C' is pivoted in a slot, *n*, in the socket, and provided with a prong, *o*, at the heel, with which a catch, *m*, on the end of the brace engages, and throws it forward and out of the socket when the umbrella is closed.

When the umbrella is opened or extended, as shown in Fig. 1, it may be closed like an ordinary umbrella, by pressing in the runner spring *f*¹, which sustains the runner *h*, and, drawing the latter down the staff, locking it by the spring *f*². If it be desired to fold the umbrella into the form shown in Fig. 5 the user grasps it with the left hand, as shown in Fig. 4, and with the right takes each rib-tip in turn

and draws the rib C' out of the socket, allowing them to fall into the shape shown in Fig. 6. Then pressing in the locking-spring f^2 he runs the runner h down the staff until locked by the spring f^1 , as in Fig. 7. Then pressing in the spring f , he pushes, with the other hand, the section A^2 up into the tube, and closes the cover against the middle section A^1 , when the handle A falls over, as shown in Fig. 8.

To open the umbrella, with the handle A up, insert in the tube, draw down the section A^2 until the spring f snaps it extended as in Fig. 7. Then reverse it, and draw the runner down toward the handle, until the cover falls over, and then push it up the staff until the spring f^1 locks it in its raised position.

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

1. The sectional telescopic staff A A^1 A^2 , the

connecting-wires b , links d , locking-springs f f^1 f^2 , flange g , runner h , jointed ribs C C' , and braces D , and a suitable cover, B , constructed and arranged to operate substantially as described and shown.

2. The combination and arrangement of the sectional ribs C C' , the former being provided with the socket i , having the braces D pivoted thereto, and the pin j , the rib C' having a hook or its equivalent, to engage with the said pin, substantially as and for the purpose set forth.

3. The combination of the elastic bands l with the rib sections C C' , substantially as and for the purpose set forth.

GEORGE W. PRESSEY.

Witnesses:

E. J. SEARS,

R. H. ANDERSON.