

A. A. VALENTINE & H. A. MORRISON.

UMBRELLA RIB-TIPS.

No. 186,907.

Patented Jan. 30, 1877.

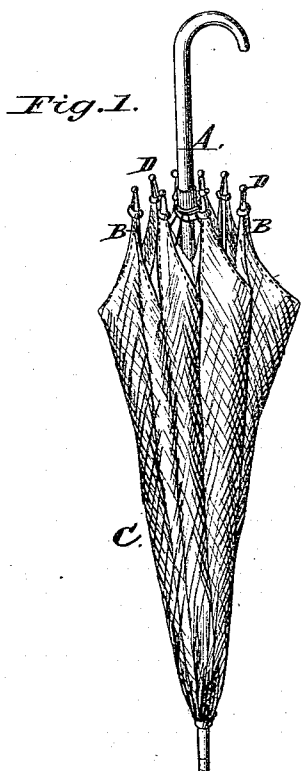


Fig. 2.



Fig. 3.

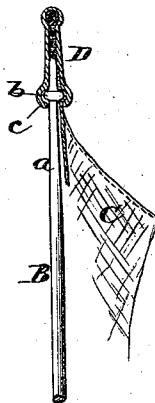


Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.

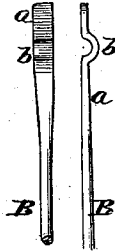


Fig. 8.

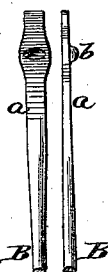


Fig. 9.



Fig. 10.



Fig. 11.



Attest
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UNITED STATES PATENT OFFICE

ALFRED A. VALENTINE, OF NEW YORK, AND HENRY A. MORRISON, OF
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IMPROVEMENT IN UMBRELLA-RIB TIPS.

Specification forming part of Letters Patent No. **186,907**, dated January 30, 1877; application filed
January 9, 1877.

To all whom it may concern:

Be it known that we, ALFRED A. VALENTINE, of New York city, New York, and HENRY A. MORRISON, of Brooklyn, New York, have invented certain new and useful Improvements in Umbrellas and Parasols, of which the following is a specification:

This invention relates to certain improvements in umbrellas or parasols, in which the covering of the same is confined and held upon or near the ends of the ribs without the necessity of sewing or stitching said covering through an opening in the ribs, which is very objectionable, owing to the fact that the thread wears and cuts out the material, and weakens it so much that it very soon breaks at such points, and speedily renders the umbrella or parasol useless.

The present invention is designed to improve the construction of the umbrella or parasol patented to us on the 21st day of November, 1876, and numbered 184,675, wherein the covering of the umbrella or parasol is secured to the ribs by means of a tip constructed to clamp the covering over and upon a projection, shoulder, or lug on the rib, or in a recess formed in the same; and the object of our present invention is to render such construction of umbrellas or parasols more effective in use, and at the same time to lessen the cost of their manufacture. The invention consists in an umbrella or parasol rib constructed or provided with a round, flattened, or other suitably-shaped end or extremity, provided with a round, oval, or other shaped projection or shoulder, and upon which projection or shoulder the edge forming the covering of the umbrella or parasol is held and confined by means of a tip having a corresponding recess or cavity for the purpose.

The invention further consists in forming the said shoulder on the rib of the umbrella by striking up an oval, flat, or other shaped recess on one side of the same, and thereby distending or forcing outwardly the opposite side of said rib, forming a correspondingly-shaped projection, ledge, or lug, whereby the cost of manufacturing this class of umbrellas is materially reduced.

In the accompanying drawing, Figure 1 repre-

sents a perspective view of an umbrella with our improvements applied thereto; Fig. 2, a view of one of the ribs and the tip in dotted lines; Fig. 3, a view of the rib and the tip, the latter being in section; Fig. 4, a view of the rib and the tip separated; Figs. 5, 6, 7, 8, and 9, modifications of the shoulders on the ribs; Fig. 10, a view of the flattened rib, and Fig. 11 another modification.

It is also proposed to split the end of an umbrella-rib, as represented in Fig. 11, insert the covering therein, and then compress the split part tightly together.

Referring to the drawing, the letter A represents the shaft or rod of the umbrella, and B the ribs of the same, attached at their inner ends in any suitable and substantial manner. The outer ends or extremities of the ribs, at and for a short distance from the ends, are flattened, as at *a*, and each rib is constructed or provided with a projection or shoulder, which is formed by striking up, on one of the flattened sides of the ribs, a cavity or recess, which distends or forces outwardly the opposite side of said flattened ribs, thereby forming the projecting shoulder or ledge *b*. This cavity may be semicircular, square, or of other suitable shape, so as to form a correspondingly-shaped shoulder or lug on the opposite side of the rib, as desired. The material forming the covering C of the umbrella is held over and upon the projection or shoulder by means of a tip, D, which is constructed with a recess or cavity, *c*, corresponding to the shoulder on the rib, in such manner as to firmly and substantially confine the edge of the covering upon said shoulder without the necessity of any sewing. The tip is flattened to correspond approximately with the flattened end of the rib, whereby the least possible projections are secured, and the appearance and neatness of the umbrella is greatly increased. The tip, in order to secure it over and upon the shoulder on the rib, is divided, as at *d*; but, after being arranged in place, the edges are brought together by compression, and, if desired, attached together so as to form an imperceptible joint.

Instead of forming the shoulder on the flattened end of the rib, in the manner described, the same may extend entirely around the

same, either in a flat, square, oval, or round shape, and the recess in the tip will, of course, be correspondingly shaped; the main object being to have the ends of the ribs and tips to have an approximately flat shape, in order to impart a neat appearance to the umbrella; and instead of the rib being provided with a shoulder, it may be constructed with a corresponding protuberance on its inside, for clamping the covering of the umbrella in said recess. In some cases I design employing a divided collar, which is arranged between the covering of the umbrella and the tip, to more firmly hold the same on the shoulder of the rib; and said collar may be made in two or more pieces, and it is constructed or provided with a recess (or a protuberance, as the case may be) of an oval, round, or other shape, corresponding in shape to the shoulder on, or the recess in, the rib.

By the construction of the ribs and tips the edges of the covering are secured to the flattened extremities of the ribs in a most effectual manner; and by the flat shape of the ends of the ribs, and the approximately flat shape of the tips, the least possible projections are secured, they occupy little room, are lighter and neater, and the symmetrical appearance of the umbrella at the tips is greatly increased.

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

1. An umbrella-rib having a projection, as described, in combination with a tip having an approximately flat shape, and a recess or projection corresponding to the projection or recess of the rib, substantially as set forth.

2. An umbrella-rib having a shoulder struck up on one side, near its end, forming a recess on the opposite side, in combination with a clamping device for holding the covering of an umbrella over and upon said shoulder, as set forth.

3. An umbrella-rib having a flattened outer extremity and a shoulder or recess, as described, in combination with a clamping-tip of an approximately flat shape, for confining the covering of an umbrella over and upon said shoulder, or in said recess, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands in the presence of the subscribing witnesses.

ALFRED AUGUSTUS VALENTINE.
HENRY ALFRED MORRISON.

Witnesses:

HENRY C. BANKS,
SARAH P. VALENTINE.