

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

UMBRELLAS.

No. 184,675.

Patented Nov. 21, 1876.

Fig. 1.

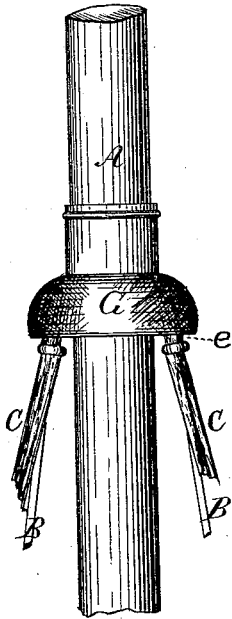


Fig. 2.

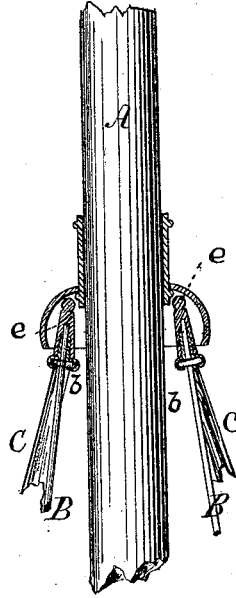


Fig. 3.

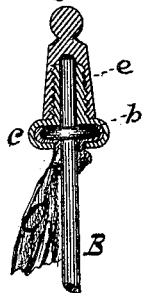


Fig. 6.

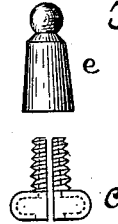


Fig. 5.

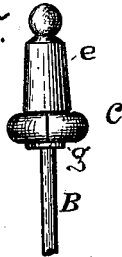


Fig. 4.

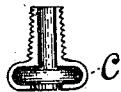


Fig. 7.

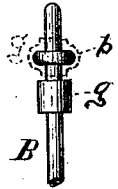
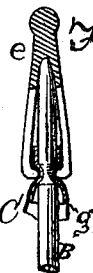


Fig. 8.



Fig. 9.



Witnesses:

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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 UMBRELLAS.

Specification forming part of Letters Patent No. **184,675**, dated November 21, 1876; application filed
October 21, 1876.

To all whom it may concern:

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

This invention relates to certain improvements in the construction of umbrellas, parasols, sun-shades, and like articles; and it consists in the means of fastening the covering of the same to the ribs thereof without stitching the covering to the ribs, as more fully hereinafter set forth.

In umbrellas as ordinarily constructed the covering has been generally attached to the ends of the ribs by means of a thread sewed through the material of the cover, and passing through an aperture in the extremity of the rib. As thus constructed the securing-thread has had a tendency to wear or cut out the material of the covering, and weaken it to such an extent as to allow the covering to break at such points, and speedily render the umbrella useless. Besides, in the means, as thus described, of securing the covering to the ends of the ribs, it required skilled labor in stitching the covering to the ribs, and our invention is specially designed to overcome these objections.

To this end our invention consists in providing the outer extremities of the umbrella-ribs with a shoulder or a recess, (preferably of an annular form,) over or into which the material of the cover can be folded and secured, by means of a divided collar, having corresponding recesses or shoulders on the interior, and a shank upon the outside, over which is adapted to fit a cap or tip, which secures the two parts of the collar together, as more fully hereinafter set forth.

In the drawing, Figure 1 represents an elevation of an umbrella staff or rod, showing the tips of the ribs in position under the shield of the umbrella. Fig. 2 is a sectional view of the same. Fig. 3 represents view of the extremity of the tip, showing the divided collar and cap for securing the material around the

annular shoulder at the extremity of the rib. Fig. 4 represents a detached view of one-half of the divided collar. Fig. 5 represents a view of the split collar and cap secured upon the end of the rib. Fig. 6 represents detached views of the split collar and cap; Fig. 7, a view of the end of the rib, showing the annular shoulder and rubber washer slipped below the same; Fig. 8, a modification showing the groove in the end of the rib, and the projection on the interior of the split collar, and Fig. 9 a modification, showing the split collar and cap constructed in one piece.

The letter A represents the shaft or rod of the umbrella, and B the ribs of the same attached thereto in the ordinary manner. The outer extremities of said ribs are provided, each, with a shoulder, *b*, (preferably of annular form,) over which the material C of the cover may be gathered, and the letter *c* represents a divided collar, having a similar recess on the inside, and a screw-shank on the outside, the recess being adapted to fit over the shoulder on the extremity of the rib, and secure the covering of the umbrella over the same. The letter *e* represents a screw cap or tip, adapted to fit over a screw-shank of the divided collar, and confine the two parts together, for the purpose of securing the covering of the umbrella between the same and the annular shoulder on the extremities of the ribs, as shown in Figs. 2, 3, and 4. To prevent undue wear or cutting out of the material of the covering where confined between the divided collar and the ribs I prefer to interpose a washer, *g*, of rubber or other elastic material, which will give slightly when the umbrella is raised and the cover stretched, thus relieving the strain upon the material at the point of attachment.

The advantages of our improvement will be apparent from the above description. The covering is secured at its center in the ordinary manner, but the edges are secured to the extremities of the tips by means of the binding action of the divided collars upon the material, securing the same over the annular shoulders without stitching, the screw-tips, which serve to hold the divided collar together, and bind them upon the material, serving the same purpose as the projecting tips of the

ordinary ribs, to conduct off the water, and to be engaged and held under the shield of the umbrella-handle when the umbrella is folded, as shown.

Instead of making the ribs with an annular projection, they may be made with a groove, (preferably of an annular form,) and the corresponding projection may be made on the interior of the divided collar, as illustrated in Fig. 8; and, instead of the cap and collar being made separate, they may be formed in one piece, as shown in Fig. 9, the sides being slightly elastic, so as to confine the fabric between the projection and recess when the collar is forced over the end of the rib.

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

1. In an umbrella or parasol, the divided collar, constructed with an annular groove, recess, or projection, adapted to fit over an annular projection, or into an annular recess on the rib of the umbrella or parasol, and secure

the covering of the umbrella thereon by means of a screw-tip, all substantially as described.

2. In an umbrella, the combination, with the ribs thereof, provided with annular shoulders near the extremities, of the divided collars, with or without the elastic washer adapted to fit over the same and secure the covering thereon, and the screw-tips for securing said collars in place, substantially as described.

3. The combination, with the umbrella-rib, having a recess at or near its end, of the clamping-tip, constructed and arranged to clamp the covering in said recess, as and for the purpose shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 16th day of October, 1876.

ALFRED A. VALENTINE.
HENRY A. MORRISON.

Witnesses:

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