

W. Damerel.

Umbrella.

N^o 49,986.

Patented Sept. 19. 1865.

Fig. 1.

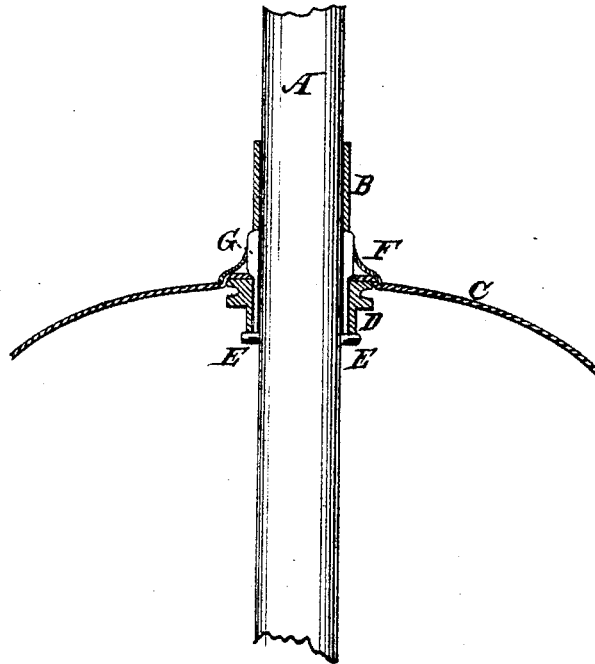


Fig. 2.

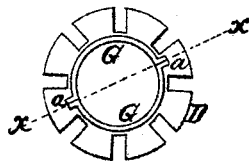
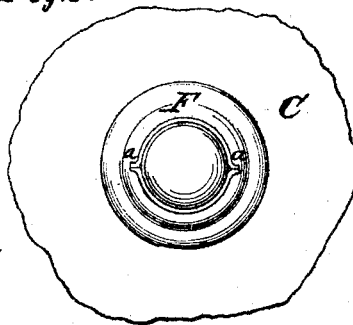


Fig. 3.



Witnesses
Wm. Dreyer
Flus. Tuck

Inventor.

Wm. Damerel
per Munn & Co
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM DAMEREL, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN UMBRELLAS.

Specification forming part of Letters Patent No. 49,986, dated September 19, 1865.

To all whom it may concern:

Be it known that I, WILLIAM DAMEREL, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Umbrellas and Parasols; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an axial section of an umbrella-stick to which my improvement has been applied, the line of section being seen at *x* in Fig. 2. Fig. 2 is a detailed view of the crown-piece, to which the upper ends of the ribs are hinged, together with the collar, which in this example of my invention is placed within it. Fig. 3 is a top view of the cap which covers or confines the cover of the umbrella.

Similar letters of reference indicate like parts.

The object of this invention is to make and connect the stick of an umbrella or parasol to the ribs and their co-operative parts in such a way that the said parts shall be free to rotate on the stick, instead of being fixed thereto, so that when the umbrella is extended and in use, the part composing the cover will yield when it meets an opposing object, and will take a rotary motion on the stick, thereby relieving the hand and also the umbrella from strain.

In the example of my invention here given A designates the stick of an umbrella, and D is the usual crown-piece, to the flange of which the ends of the ribs are hinged. The crown-piece is held up to its place by means of pins E, which project from two or more points of the stick, thereby preventing it from falling down on the stick, but not opposing any resistance to its free rotation thereon. A collar may be used for this purpose instead of pins. The letters G G designate a thimble or ferrule, composed in this example of two equal parts, divided in the line of the plane *x*, Fig. 2. The lower ends of the parts G G meet so as to present a smooth joint, making a smooth cylindrical surface, over which the crown-piece D passes, as shown in Fig. 1. The upper ends of the parts G G of the ferrule have projecting lips *a a* on their edges, which, when they come together,

form radial flanges, whose lower ends may fit in notches cut on the upper edge of the crown-piece, if it is desired to connect them with said crown-piece. It is not necessary to connect them in this manner, and if it is desired that they move always together they may be so fitted to each other as to produce friction enough to prevent them from rotating independently of each other.

C designates the usual cloth or other covering of the umbrella or parasol, which is confined between the crown-piece and a metallic cap, F, whose sides rise after the manner of a cone; or the cap may be of a semicircular form, its crown being perforated to allow it to pass over the stick. The upper edges of the cap are notched to receive the flanges *a a*, which serve to lock the cap to the ferrule. The crown-piece and cap are held down on the pins E by means of a metallic collar, B, or equivalent device, thereby, in conjunction with them, preventing those parts from having any longitudinal motion on the stick. One result of this construction is, that the frame of the umbrella or parasol—that is, the ribs and their covering and the crown-piece to which the ribs are hinged—are permitted to revolve freely upon the stick, so that when the ribs are extended, as when the umbrella is in use, if their ends or the edge of the cover come in contact with or receive a blow from any object, the frame will yield and will begin to revolve, thereby avoiding and preventing injury from tearing the cloth or breaking the ribs or other parts of the article.

Instead of using a metallic cap, F, to confine the top of the covering to the crown-piece, I can use a ring or collar of elastic and flexible material—such, for instance, as rubber and its equivalents, and which is applied or slipped over and upon the collar B, or upon the upper part of the stick, its lower end compressing and confining the covering C to the crown-piece. Such flexible collar should clasp those parts tightly, so as not to be liable easily to become displaced. Its operation will be to allow the crown-piece and ribs and covering of the umbrella to revolve on the stick without exposing the edges of the covering to the weather. The cap F may also be fixed to the collar B, and its lower edge be made flexible

and be extended down over the crown-piece, so as to inclose the upper edge of the crown-piece C.

I claim as new and desire to secure by Letters Patent—

1. In umbrellas and parasols, so securing on the stick the crown-piece or other device to which the upper ends of the ribs of such articles are attached as that the said crown-piece and the parts attached to it shall be capable

of rotating on the stick, substantially as described.

2. In combination, the crown-piece D, the collar G G, with the longitudinal flanges *a a*, and a cap, F, for inclosing the upper edge of the covering C and confining it to the crown-piece, substantially as described.

Witnesses: WILLIAM DAMEREL.

WM. F. McNAMARA,

C. L. TOPLIFF.