

(No Model.)

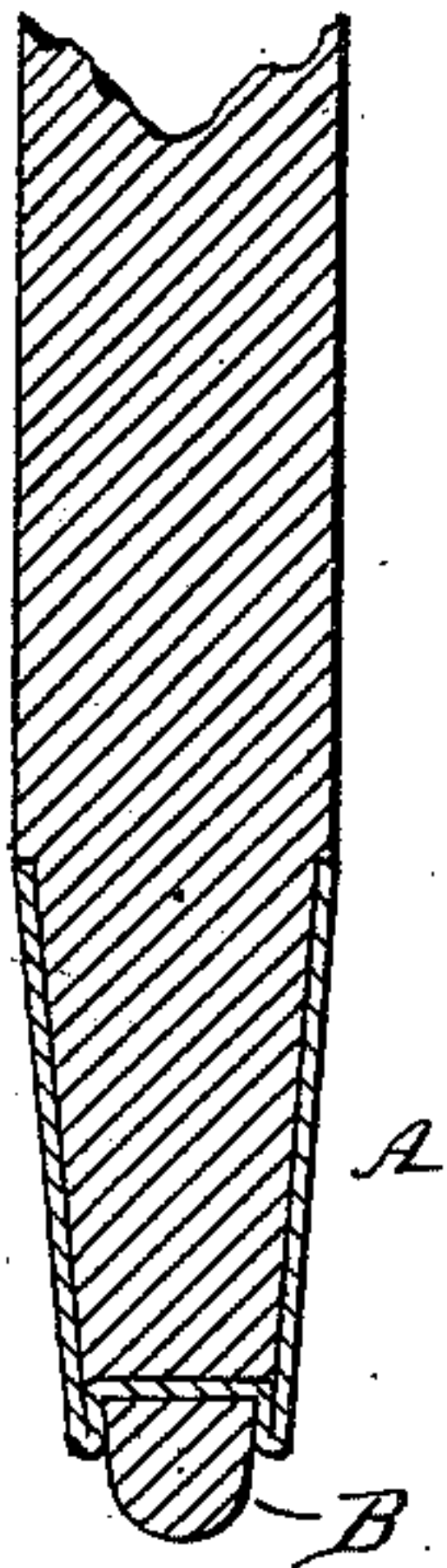
O. M. SMITH.

FERRULE FOR UMBRELLAS, CANES, &c.

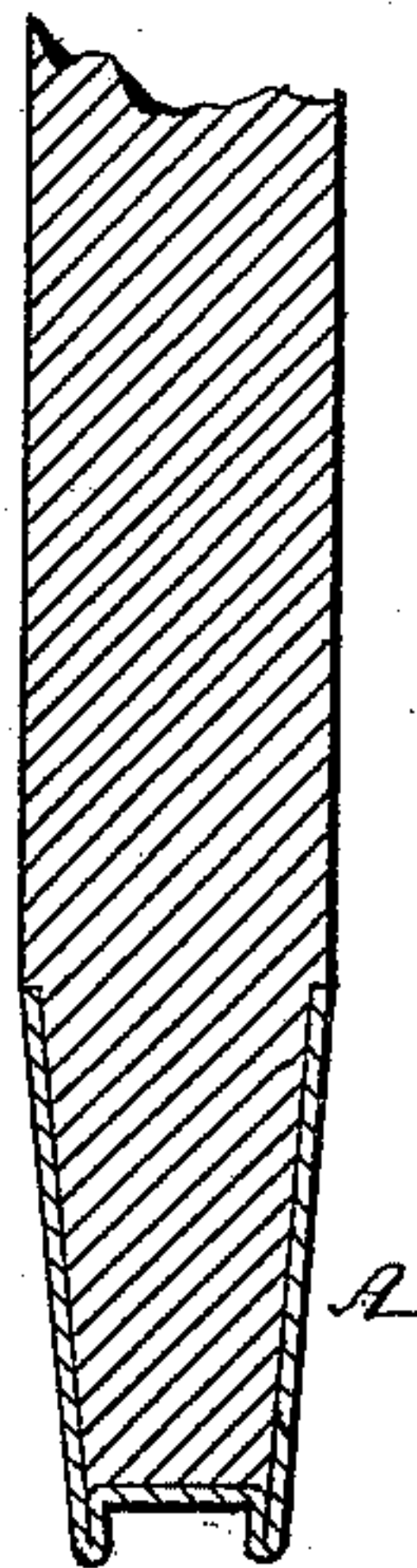
No. 383,378.

Patented May 22, 1888.

F = Fig. 1 =



F = Fig. 2 =



F = Fig. 3 =



F = Fig. 4 =



Witnesses,

Albert B. Blackwood.

O. M. Humphrey.

By his Attorneys

Conroy & Co.

O. M. Smith

Inventor,

UNITED STATES PATENT OFFICE.

ORREN M. SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
WILLIAM GRANGE, OF SAME PLACE.

FERRULE FOR UMBRELLAS, CANES, &c.

SPECIFICATION forming part of Letters Patent No. 383,378, dated May 22, 1888.

Application filed March 17, 1888. Serial No. 267,545. (No model.)

To all whom it may concern:

Be it known that I, ORREN M. SMITH, a citizen of the United States, residing at Philadelphia, Pennsylvania, have invented certain
5 new and useful Improvements in Ferrules for Canes, Umbrellas, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which
10 form part of this specification.

This invention has relation to ferrules for sticks, canes, umbrellas, &c., and has for its object the provision of a novel expedient for retaining the steel point or plug in the end of
15 the ferrule.

In applying the steel point or plug to a ferrule it has been customary to simply insert a suitably-shaped piece of steel in the small open end of a common brass tube and to fasten the
20 same in place by solder. Plugs or points thus fitted are not held sufficiently tight to withstand rough usage, and are frequently displaced and lost, thus rendering the ferrule useless.

My invention contemplates fitting and fastening the steel point or plug to the brass socket without the use of solder or brazing, in such a manner that said point will remain permanently in place and cannot be accidentally displaced.
25

My invention consists in the novel construction and combination of parts, as hereinafter described and claimed.
30

In the accompanying drawings, Figure 1 is a vertical central section of a completed ferrule embodying my improvement. Fig. 2 is a similar section of the ferrule before insertion of steel point. Figs. 3 and 4 are side views of modified forms of plug or point.
35

In carrying my invention into effect I employ as the body or socket of the ferrule a tapering tube, A, of thin metal, such as brass, having its smaller end closed. This tube may be struck up, spun, or otherwise made according to any of the methods in use capable of
45 producing such articles.

The ferrule point or plug consists of a small block, B, preferably of hardened steel, of conical shape, and having its small end rounded or flattened. To insert the plug in the ferrule-tube I first place the latter between holding-
50 dies, and with a suitable punch turn the end inward a sufficient distance to receive the plug. I then insert the large end of the steel plug in the recess formed as above, and by proper dies and punch close in the metal around the base
55 of the plug, so as to produce the result shown in Fig. 1. When in place, the base of the point or plug is firmly seated against the introverted end of the tube and cannot be driven farther, while its conical sides are embraced by a double
60 thickness of metal conforming to the shape of the plug and holding the latter firmly and securely in place and preventing it from being displaced by any thrust or blow.

I do not confine myself to any special form
65 of plug, as the same may be either flat or squared or turned to a semi-spherical form. The latter form is, however, preferable, as it is less likely to be knocked out of shape or worn by contact with hard surfaces.
70

Having described my invention, I claim—

1. As a new article of manufacture, a ferrule for canes, umbrellas, and the like, consisting of a tube or socket of thin metal having a closed introverted end and a double-walled
75 recess containing a conical plug or point, substantially as described.

2. As a new article of manufacture, a ferrule consisting of a thin metallic tube having a closed recess at its smaller end containing a
80 conical plug or point resting against the base of said recess and clamped by the walls thereof, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of
85 March, 1888.

ORREN M. SMITH.

Witnesses:

SAML. A. LEWIS,
JOHN W. GRANGE.