

A. MILLIKEN.

Notch-Ring for Umbrellas.

No. 198,549.

Patented Dec. 25, 1877.

Fig. 1.



Fig. 2.

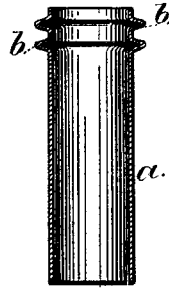


Fig. 3.

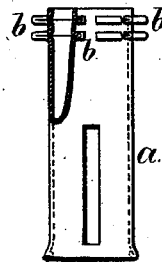
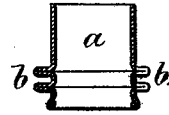


Fig. 4.



Witnesses

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Inventor.

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per Lemuel W. Terrell
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UNITED STATES PATENT OFFICE.

ALONZO MILLIKEN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN NOTCH-RINGS FOR UMBRELLAS.

Specification forming part of Letters Patent No. **198,549**, dated December 25, 1877; application filed October 24, 1877.

To all whom it may concern:

Be it known that I, ALONZO MILLIKEN, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Joint-Rings for Umbrellas and Parasols, of which the following is a specification:

The notched joint-ring upon the runner and the crown-ring upon the stick, near the end, have usually been made of cast metal, which is soft and liable to break, and has to be attached to the tube when applied to the runner, and is liable to become disconnected or broken, and to maintain the required strength the ring cannot be notched deeply.

Rings for umbrella-runners have been made from the metal of a tube so swaged in dies as to form two flanges, one of which is double, and the other is of single thickness, being formed by turning the sheet metal outwardly. These flanges are not of uniform strength, and the notches in the edges of the single flange render it weak and easily bent, especially with the thin metal usually employed in umbrella-runners.

My invention consists in a notched ring for umbrellas or parasols made of a sheet-metal tube, with two annular and adjacent flanges, each made double by spreading the sheet metal of the tube outwardly, and compressing the same endwise of the tube to fold such metal double at each flange.

In the drawing, Figure 1 represents the sheet-metal tube from which the joint-rings are made. Fig. 2 represents the ribs as thrown

outwardly. Fig. 3 is a section of the runner complete, and Fig. 4 is a section of a crown-ring similarly made.

The tube *a* is of any desired character, and by preference it is made similar to a blank for a cartridge-case, so as to be without seam. Two ribs are thrown outwardly, as in Fig. 2. This is done by rolling-dies, or in any desired manner. Afterward the ribs *b b* are pressed in the direction of the axis of the cylinder, to flatten them and make the ribs double, and standing out uniformly all around the sheet-metal cylinder *a*; and the notches for the ends of the stretchers can then be cut in the sheet-metal double ribs or flanges, and when these ribs or stretchers are strung up the wire lies in the groove between the flanges.

When used for a runner, the tube *a* will be sufficiently long to form the runner. When used for the crown notch-ring, the cylinder should be short, as seen in Fig. 4.

I claim as my invention—

The notch-ring for umbrellas or parasols, made of one piece of sheet-metal tubing, having two annular flanges adjacent to each other, and each flange made of a double thickness of the sheet metal of the tube, spread outwardly and folded double, substantially as set forth.

Signed by me this 22d day of October, A. D. 1877.

A. MILLIKEN.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.