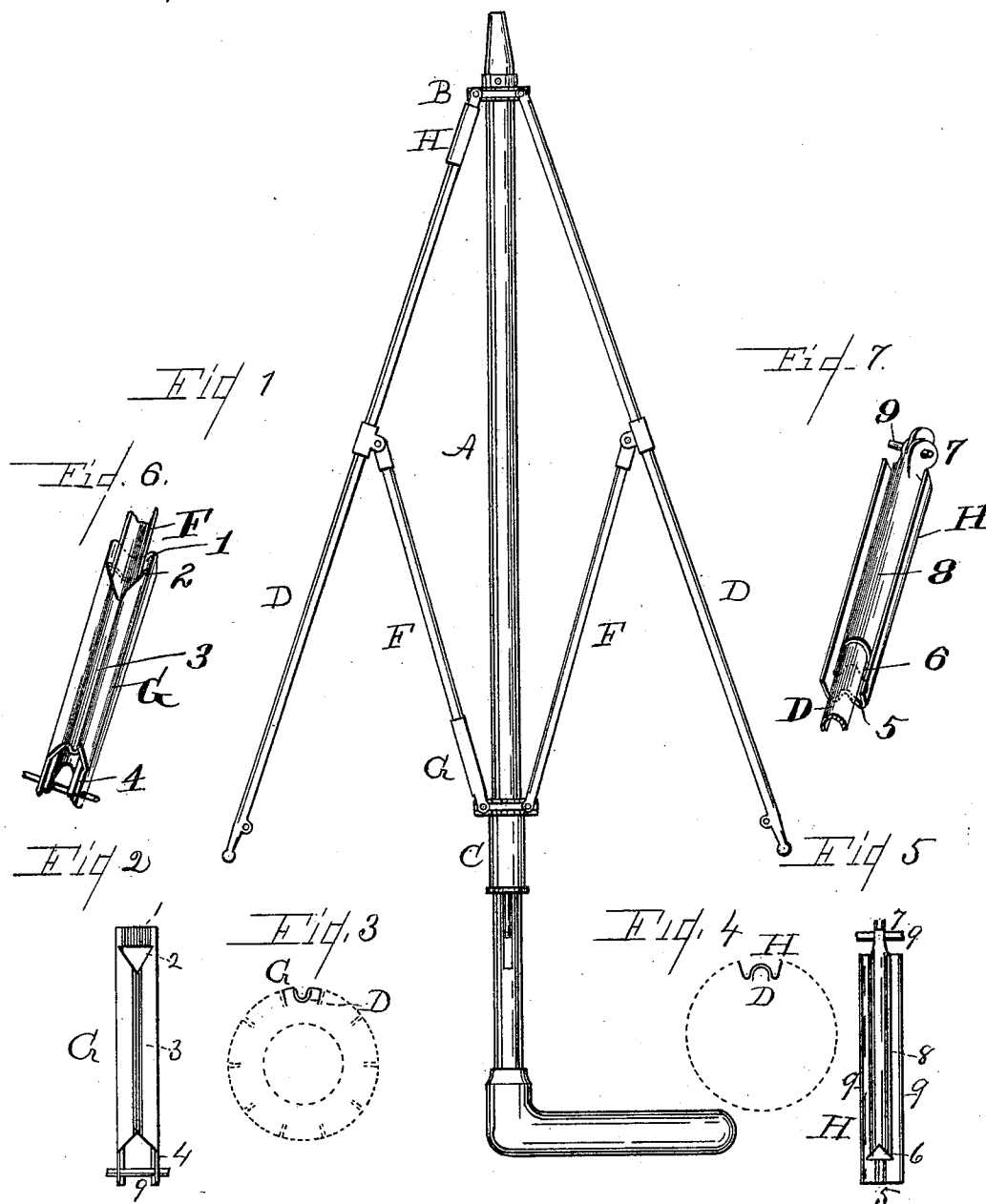


(No Model.)

H. G. PRAETORIUS.
GUIDE FOR UMBRELLA RIBS AND STRETCHERS.

No. 481,283.

Patented Aug. 23, 1892.



Witnesses

J. H. Minder
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UNITED STATES PATENT OFFICE.

HERMAN G. PRAETORIUS, OF DAYTON, OHIO.

GUIDE FOR UMBRELLA RIBS AND STRETCHERS.

SPECIFICATION forming part of Letters Patent No. 481,283, dated August 23, 1892.

Application filed February 1, 1892. Serial No. 419,907. (No model.)

To all whom it may concern:

Be it known that I, HERMAN G. PRAETORIUS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Guides for Umbrella Ribs and Stretchers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in guides for umbrella ribs and stretchers, the several features of which will be fully hereinafter described and claimed.

The object of my invention is to prevent the entangling of the ribs and stretchers or one pair getting beneath the other, thereby obviating the difficulty in opening the umbrella and relieving the difficulty of breaking the ribs and rending the cover. This I accomplish by attaching metallic guides to the upper ends of the ribs and to the lower ends of the stretchers in immediate connection with the runners and top notches, and thereby filling the intervening spaces, and consequently preventing overlapping and the resulting injuries.

The construction is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of an umbrella frame with only two pairs of ribs and stretchers attached. Fig. 2 is a top view of the guide for the stretcher. Fig. 3 is a transverse section of the guide and "paragon" stretcher. Fig. 4 is a transverse section of the rib-guide and paragon rib. Fig. 5 is a top view of the rib-guide. Fig. 6 is a perspective view of the stretcher-guide and part of the stretcher and retaining-wire. Fig. 7 is a perspective view of the rib-guide and part of the rib and retaining-wire.

Like letters and numerals designate like parts throughout the several views.

The umbrella in all its parts is constructed in the usual manner of those using the paragon or U-shaped ribs, and the invention only

involves the guides in their relation to said ribs and stretchers.

In the illustration, A is the handle; F, the stretchers; D, the paragon ribs; B, the top notch, and C the runner. The ribs are held in the top notch by the usual binding-wire, which is passed through the ears of the same and rests in the annular groove in said top notch, and in the same manner are held the stretchers to the runner. At the juncture of the ribs with the top notches and the stretchers with the runner there is considerable space between the ends of said ribs and stretchers, and this condition permits of a lateral movement, which results in interlocking. To prevent this, I use guides to stay the parts in position. G serves as a guide to the stretcher and is formed of a thin metallic plate. The groove 1 receives the exterior of the stretcher.

2 is a triangular slot.

3 is a grooved portion that enters the interior of the stretcher and extends to the end of said stretcher, thus forming the ear 4, with eyes to receive the binding-wire 9. The ears occupy the notches in the runner prepared for the end of the stretchers and are secured by the binding-wires.

At Fig. 3 is shown transversely the relation of said guide to the stretchers, and the dotted lines show the relation of the series when the umbrella is closed.

At G, Fig. 1, is shown one of the guides as attached to the stretcher.

At Fig. 5 is shown the guide for the rib. The folded part 7 embraces the eye of the rib. The part 8 covers the exterior of the same. The triangular slot 6 is for the proper folding, and the raised part 5 is to enter the interior of said rib and the flanges. These guides are formed and slipped onto the ends of the ribs and stretchers, and are held in position by the binding-wires used to bind the same to the top notch and the runner. The use is to guide the stretchers and ribs, so that in the opening of an umbrella there will be no entanglement of these parts.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the paragon stretcher F, the runner C, and the guide G, comprising the ears 4 and embracing parts 1 and 3 and the binding-wire 9, substantially as set forth.
- 5 2. The combination of the paragon rib D, the top notch B, and guide H, comprising the ears 7, the embracing parts 8 and 5, and binding-wire 9, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HERMAN G. PRAETORIUS.

Witnesses:

B. PICKERING,

B. F. HERSEY.