

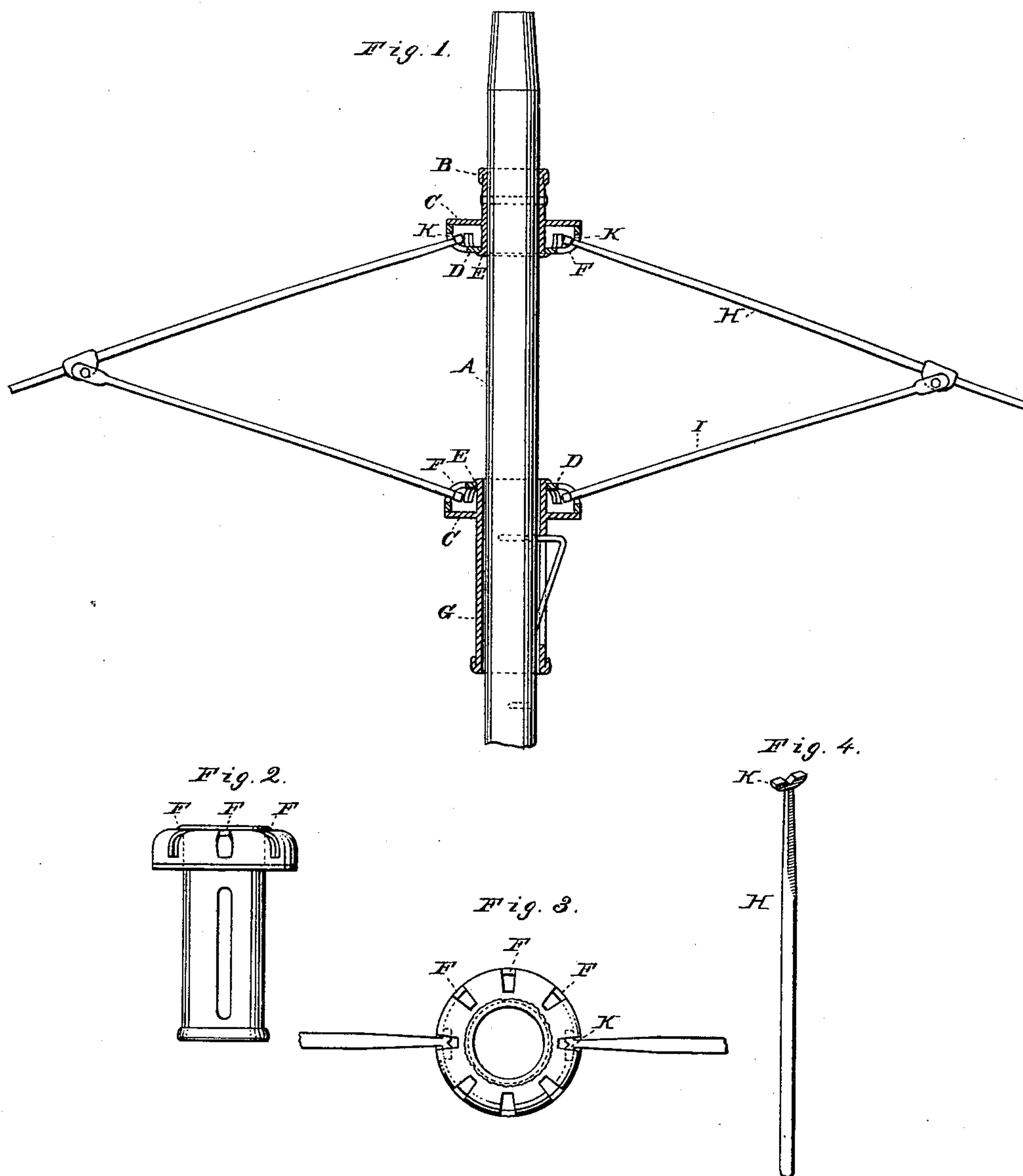
(No Model.)

2 Sheets—Sheet 1.

J. H. SIMPSON.  
UMBRELLA RUNNER.

No. 353,978.

Patented Dec. 7, 1886.



WITNESSES

*Villette Anderson*  
*Philip Lettasi.*

INVENTOR

*James H. Simpson*  
by *Anderson & Smith*  
ATTORNEYS

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2 Sheets—Sheet 2.

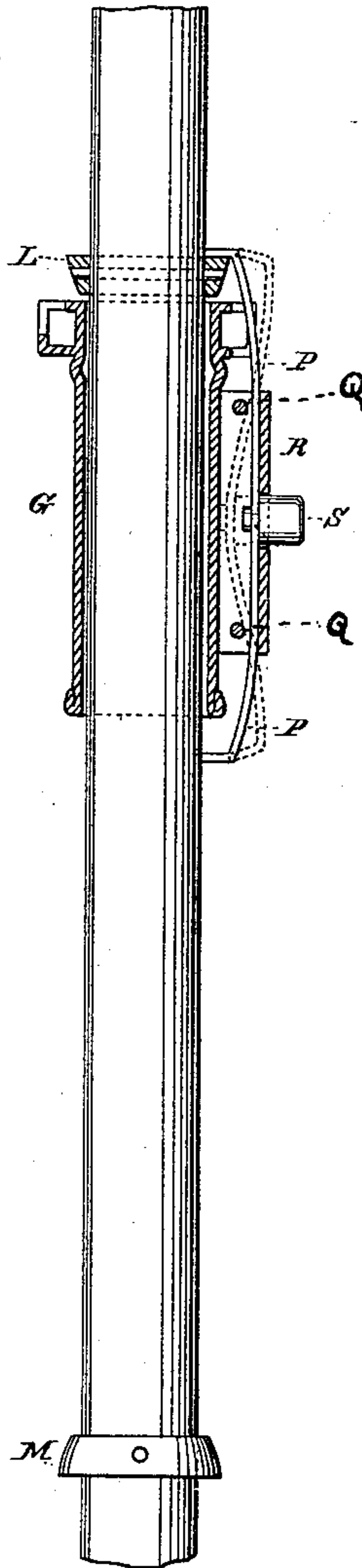
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*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

JAMES HARVY SIMPSON, OF RICHMOND, VIRGINIA.

## UMBRELLA-RUNNER.

SPECIFICATION forming part of Letters Patent No. 353,978, dated December 7, 1886.

Application filed August 26, 1886. Serial No. 211,927. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES HARVY SIMPSON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Umbrella-Runners; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention, and shows a portion of an umbrella with the top notch and runner in vertical section. Fig. 2 is a side view of the runner. Fig. 3 is a top view. Fig. 4 is a perspective view of the end of one of the wires. Fig. 5 shows a modification, and is a vertical section, except the stick and one of the stop-collars, which are shown in side view.

My invention relates to umbrella-runners; and it consists in the construction and novel combination of parts, as hereinafter described, and pointed out in the claims.

Referring by letter to the accompanying drawings, A designates the umbrella-stick, and B is the upper stationary or fixed top notch. Near its lower end the fixed top notch, B, is provided with an integral or a fixed collar or annular flange, C, and immediately below this collar or flange C, and having its upper edge bearing against the lower face of the collar or flange C, is a cup-shaped ring, D, having a central opening, E, in its bottom to receive the lower end of the top notch, B. The material of the lower end edge of the top-notch, B, is upset or forced outwardly by a reamer introduced into the bore of the top notch, B, at said lower end, so that the rough peripheral edge formed by the reamer will engage the lower face of the material of the cup-shaped ring D and hold the latter in place on the top notch, B, without having to resort to the use of solder or brazing to secure the ring D to the top notch, B. This ring D is provided with a number of radially disposed slots, F, around the body of said ring, the number of

slots F being equal to the number of ribs that are to be used in constructing the umbrella-frame.

The upper end of the runner G is constructed similarly to the lower end of the fixed top notch, B, so that a description of one will answer for both.

H designates a portion of one of the ribs of the umbrella-frame. The upper end of this rib H is first heated, and is then split for a short distance in the longitudinal middle line of said rib, and a T-head is formed thereon, said T-head being designed to be inserted in its proper radially-disposed slot and then the rib turned one-fourth way round on its axial line to turn the T-head crosswise of the slot, so that the rib cannot be accidentally removed from its slot.

The braces I of the ribs are connected to the ribs in any of the well-known ways commonly practiced, and the lower ends of the braces I are provided with T ends or heads K, which are constructed in the same manner as the T-heads at the upper ends of the ribs.

The connections between the ribs and braces or stretchers are made after the T-heads of the ribs and stretchers have been introduced into their respective radial slots in the top notch and runner.

At proper points near the runner G the umbrella-stick is provided with stop-collars L and M, the former, L, being above the runner G, and the latter, M, being below said runner G, the said stop-collars being secured to the stick at a proper distance from each other, to permit the upper angularly-bent end of the spring P to engage the upper collar, L, when the runner is moved up to expand the umbrella, and also to permit the lower angularly-bent end of said spring P to engage the lower collar, M, and hold the umbrella in the closed position. The spring P is rested on transverse bearing Q in an elongated open-end box, R, secured to or forming a part of the runner G, and said spring P is provided at its middle with a push-button, S, upon which the operator pushes to operate the spring to cause it to engage with and be disengaged from the stop-collars L and M when hoisting and folding the umbrella.

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

1. In an umbrella, the notch B, having the  
5 rigid external annular flange and the lower  
edge of the opening E turned outwardly, as  
shown, in combination with the cup-shaped  
ring D, having radially-disposed slots, and se-  
cured between the said external annular flange  
10 and the outwardly-turned edge of the notch,  
substantially as specified.
2. In an umbrella, the combination of the  
runner having one edge of its bore turned out-  
wardly, as shown, and having the external an-

nular flange, C, the cup-shaped ring D, hav- 15  
ing the radially-disposed slots, and secured be-  
tween the said annular flange and outwardly-  
turned edge of the runner, and the stretchers  
having their inner ends provided with an in-  
tegral T-head, and the opposite ends adapted 20  
to be secured to the ribs, substantially as speci-  
fied.

In testimony whereof I affix my signature in  
presence of two witnesses.

JAMES HARVY SIMPSON.

Witnesses:

THEO. MUNGEN,  
PHILIP C. MASI.