

(No Model.)

C. P. COGGESHALL.

UMBRELLA.

No. 354,537.

Patented Dec. 21, 1886.

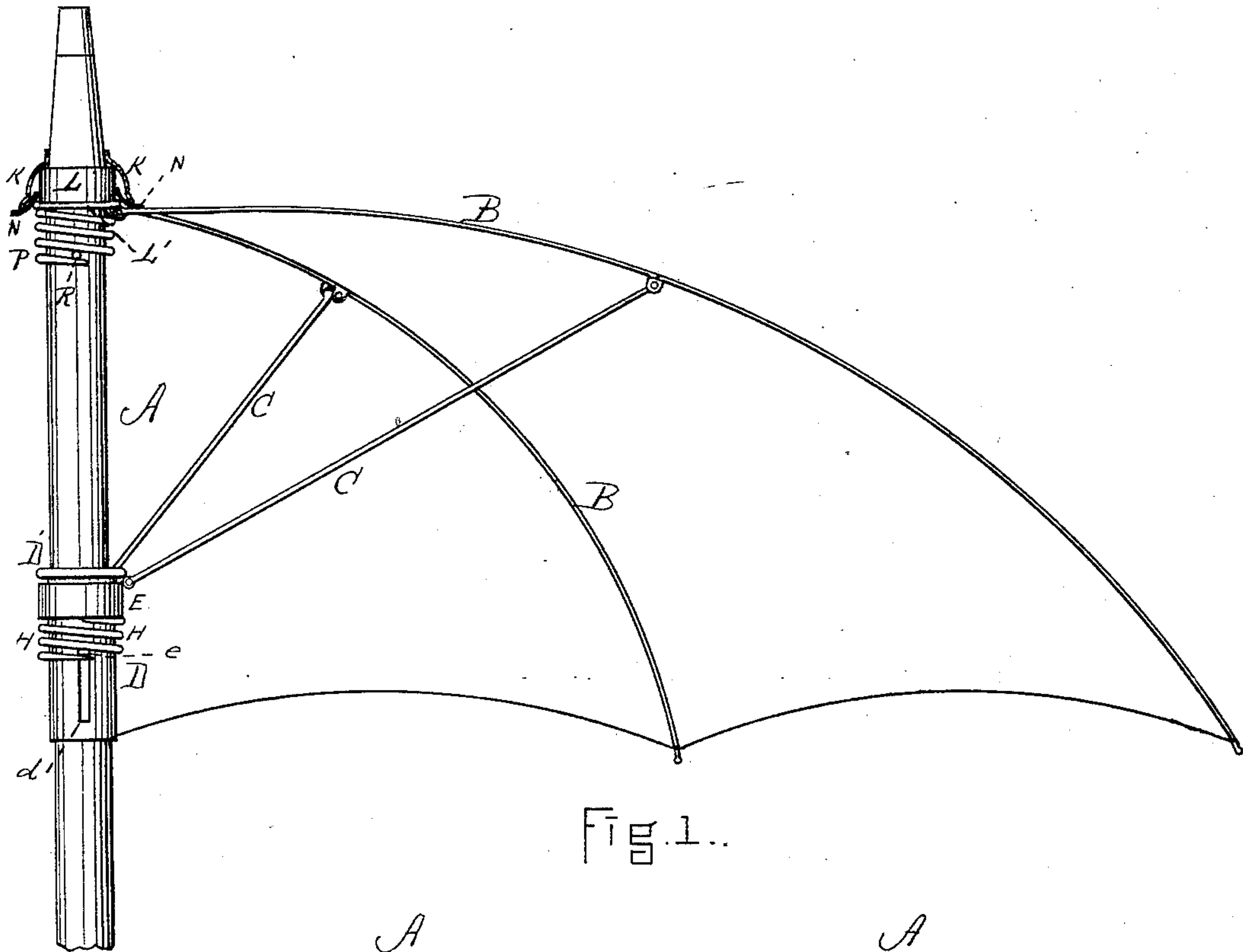


Fig. 1.

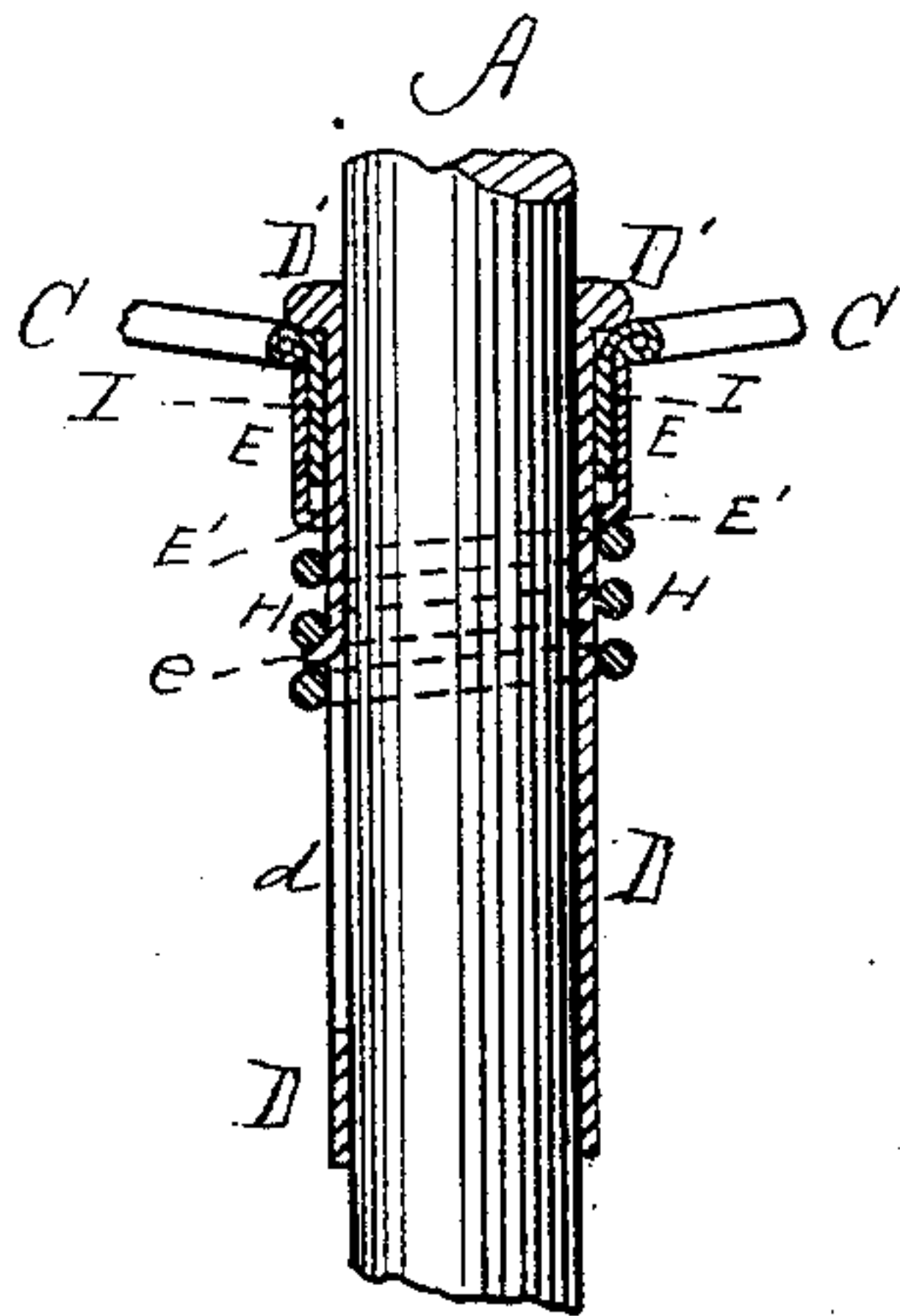


Fig. 2.

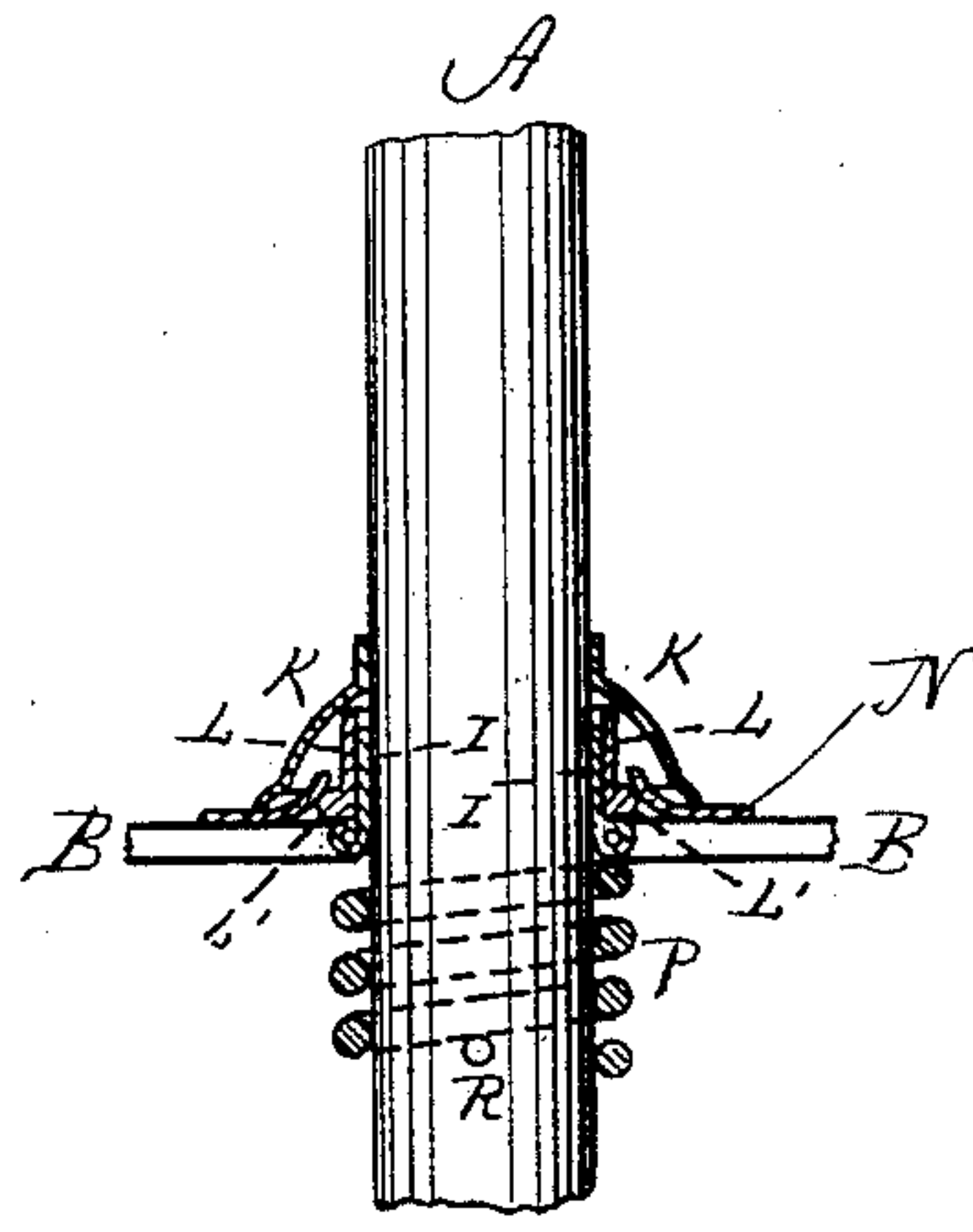


Fig. 3.

WITNESSES.

J. M. Hartnett.

L. B. Dr. Williams.

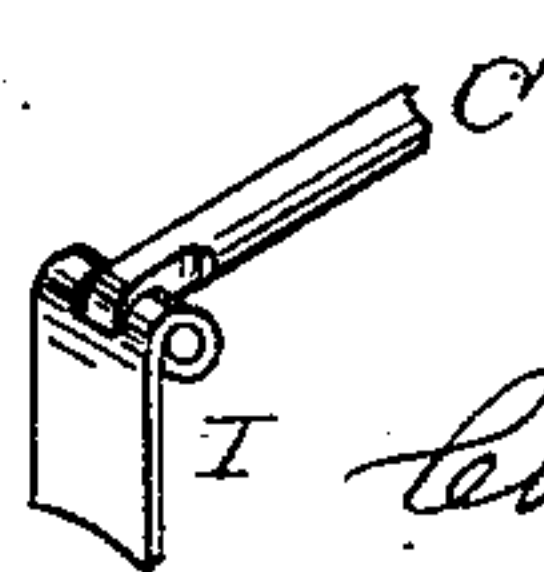
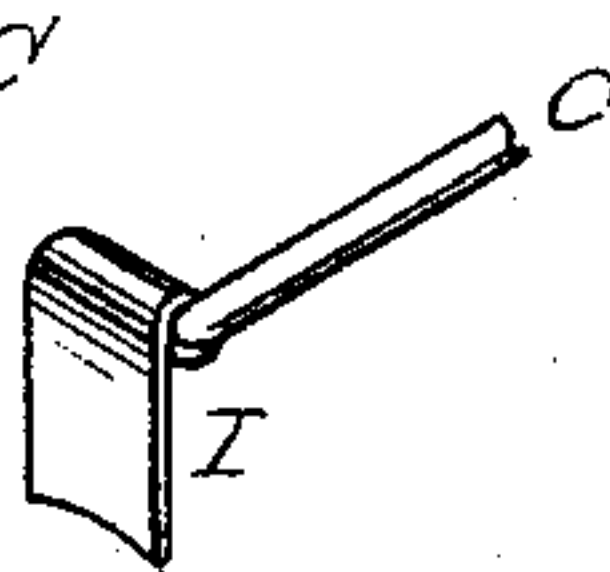
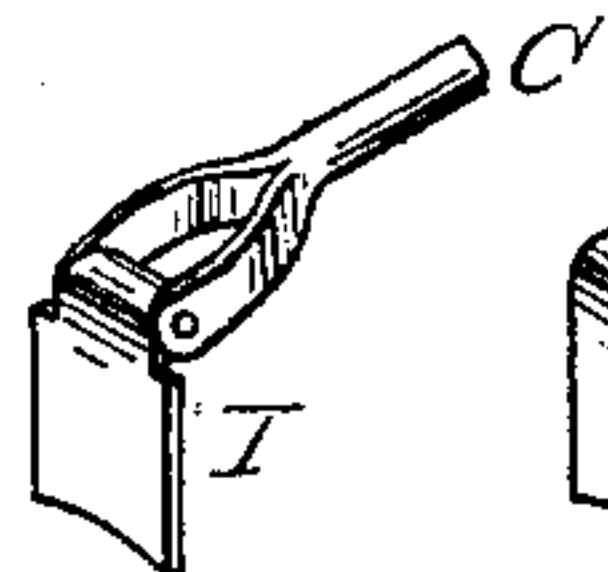


Fig. 4.

INVENTOR

Charles P. Coggeshall.

By his Atty.

Henry Williams

UNITED STATES PATENT OFFICE.

CHARLES P. COGGESHALL, OF BOSTON, MASSACHUSETTS.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 354,537, dated December 21, 1886.

Application filed March 29, 1886. Serial No. 196,921. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. COGGESHALL, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Umbrellas, of which the following is a specification.

This invention relates to the means by which the ribs and braces are secured to the runner and crown, the principal object being to so attach them that they can be easily removed for the purposes of repairing and as easily attached again, and at the same time be perfectly secure in their positions.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a view of a portion of an umbrella, with the crown and cloth in section, embodying my invention. Fig. 2 is a view of a portion of the staff, with the runner and adjacent parts in vertical section. Fig. 3 is a view of a portion of the staff, with the crown and adjacent parts in vertical section. Fig. 4 represents views of the inner ends of the ribs or braces, showing different means of attachment to the swinging plates which secure the same to the runner or crown.

A represents the staff, C the braces, and B the ribs.

D is the runner, provided with an annular bead or flange, D', at its upper end and the usual vertical slot, d. At the upper end of this slot the metal is turned up into a lip or projection, e.

E is a ring placed loosely on the runner, and provided at its lower edge with an inwardly-projecting annular flange, E', which lies against the runner, said ring being large enough to allow above its flange an annular space between it and the runner.

H is a spiral spring surrounding the runner below the ring E. Loosely attached to the ends of the ribs B, so as to swing freely therefrom, are small plates I, preferably formed upon a circle, so as to fit the runner. These plates lie in the annular space between the runner and the ring E, and the braces radiate from them between the upper edge of said ring and the bead D' on the runner.

It will be observed that the lip or projection e lies between two of the coils of the spring H. Now, if it lies between, say, the two lowest coils, as shown in the drawings, or below them, it is apparent that the larger portion of the

spring is between said lip or projection and the ring E, forcing said ring up as far as it will go, and hence preventing the plates I, to which the braces are attached, from slipping out. To detach the plates, the spring is turned until the major portion of it is below the lip e, thus allowing space for the ring E to be drawn down and the plates I removed, freeing the inner ends of the braces. By this means the braces are very readily attached or detached, when desired, for the purposes of repairs.

The method of securing the ribs to the crown is similar to that above described whereby the braces are secured to the runner.

K represents the crown, rigidly secured to the staff, and L is a ring provided with an annular bead or flange, L', at its lower edge, said ring being of sufficient size to allow an annular space between it and the staff, and being placed up under and within the crown, as shown. N is the covering.

P is a spiral spring surrounding the staff, and R is a pin inserted in the staff and lying between two of the coils of said spring. The ribs B are provided with plates I, exactly similar to the plates I upon the braces C, said plates extending up between the ring L and the staff, as shown in Fig. 3. By turning the spring P on the staff the ribs B may be detached and attached in the same manner as the braces C.

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

1. The combination of the braces C, provided with the swinging plates I, the runner D, provided with the flange D' and lip or projection e, the spiral spring H, and the ring E, placed upon said runner between the spring and said flange, and large enough to allow an annular space for the accommodation of said plates I, substantially as and for the purpose set forth.

2. The combination of the ribs B, provided with the swinging plates I, the staff A, provided with the pin R, the crown K, ring L, large enough to accommodate the said plates I between it and the staff, and spiral spring P, substantially as and for the purpose described.

CHARLES P. COGGESHALL.

Witnesses:

HENRY W. WILLIAMS,
J. M. HARTNETT.