

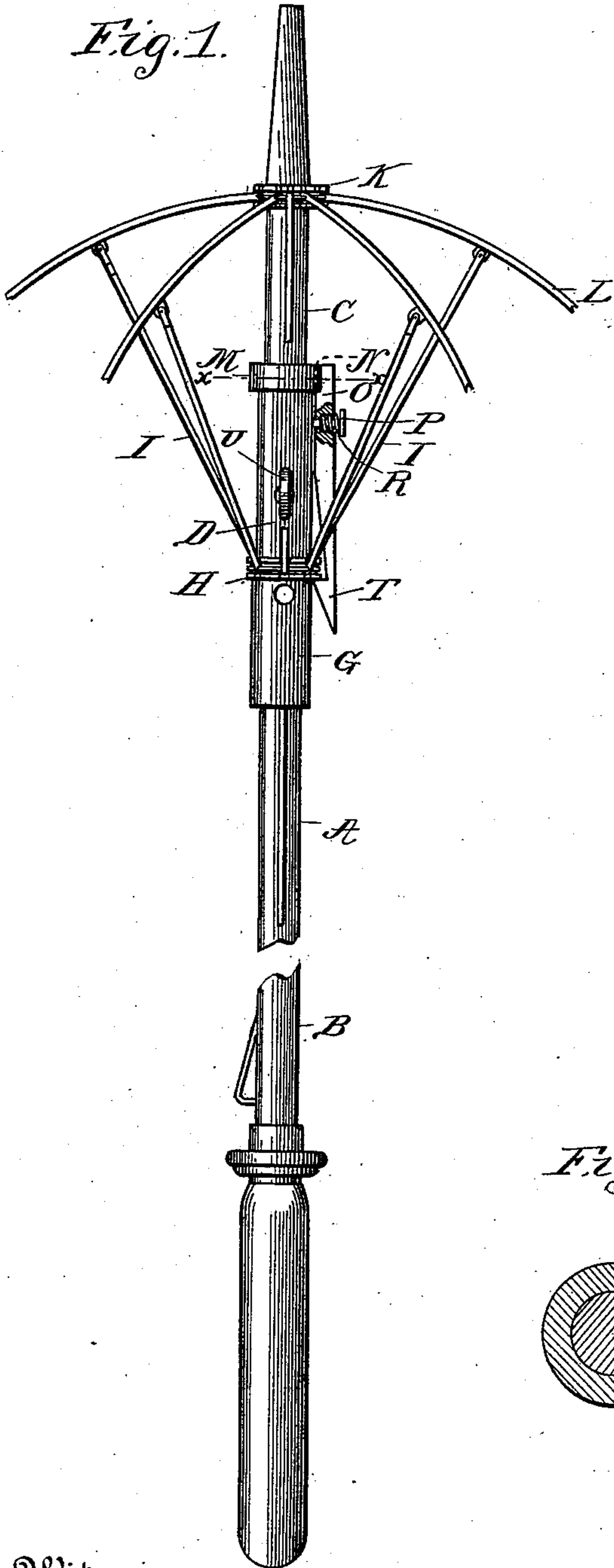
(No Model.)

F. HAITZ.  
UMBRELLA.

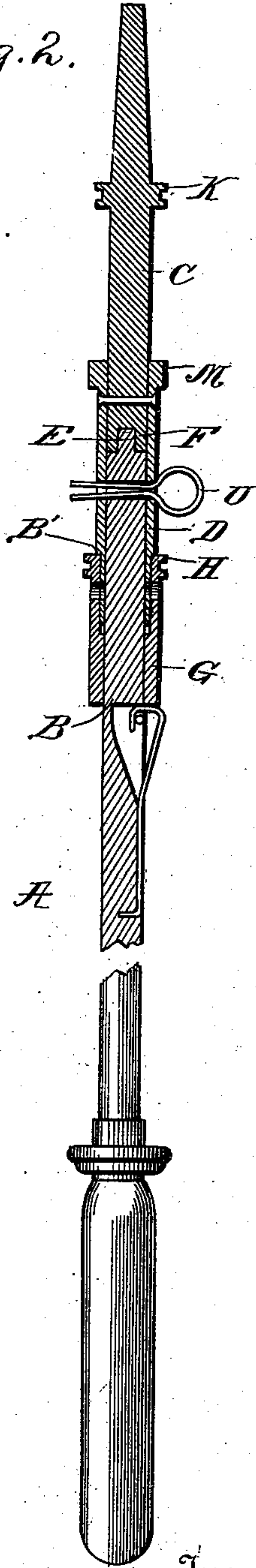
No. 377,455.

Patented Feb. 7, 1888.

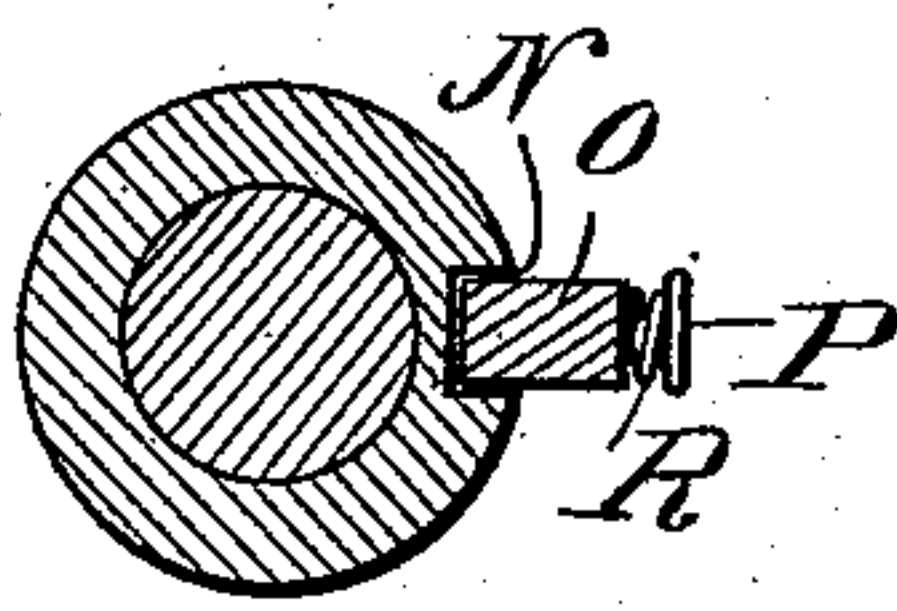
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

Wm. R. Rheem.

J. W. Garner

Inventor

Fredrick Hantz

By his Attorneys,

C. A. Snowdon



# UNITED STATES PATENT OFFICE.

FREDRICK HAITZ, OF TOWANDA, ILLINOIS.

## UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 377,455, dated February 7, 1888.

Application filed April 18, 1887. Serial No. 235,237. (No model.)

*To all whom it may concern:*

Be it known that I, FREDRICK HAITZ, a citizen of the United States, residing at Towanda, in the county of McLean and State of Illinois, have invented a new and useful Improvement in Umbrellas, of which the following is a specification.

My invention relates to an improvement in umbrellas; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

This invention is an improvement on the umbrella for which Letters Patent of the United States No. 326,213 were granted to me September 15, 1885.

In the drawings, Figure 1 is a side elevation of an umbrella embodying my improvements. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a transverse sectional view taken on the line *x x* of Fig. 1.

A represents an umbrella-stick, which is made of two sections, B and C. The upper section, C, is very much shorter than the lower section, B, and is provided on its lower end with a depending sleeve, D, adapted to receive the upper end of the lower section, B. The upper end of the said section B has a tenon, E, and in the lower end of the section C is a transverse mortise, F, adapted to receive the said tenon, and thereby prevent the upper section from rotating on the lower section when the two are coupled together. The lower end of the depending sleeve D is slightly reduced in diameter, thereby forming a shoulder, B'.

G represents a thimble which fits on the lower section of the umbrella-stick and has its bore enlarged at its upper end sufficiently to adapt it to receive the reduced lower end of the upper sleeve, D. At the upper end of the thimble is the usual annular flange, H, provided with a number of radial notches adapted to receive the inner ends of the umbrella-stays I, and an annular groove is made in the said flange to receive the usual ring, which passes through openings at the inner ends of the stays and forms the pivot upon which the latter turn.

The upper section of the umbrella-stick, near its upper end, is provided with an annular flange, K, to which the upper ends of the umbrella-ribs L are pivoted in the usual man-

ner. The upper ends of the stays are pivoted to the said ribs.

The upper end of the sleeve D has an annular flange, M, in one side of which is an opening, N.

O represents a keeper which has its upper end fitted in the opening N. A headed pin, P, extends transversely through the sleeve and through the upper section of the umbrella-stick to secure them together, and the outer end of the said pin passes through an opening near the upper end of the keeper. A coiled extensile spring, R, fits in a countersunk opening in the keeper and bears against the inner side of the enlarged head of the pin. The function of this spring is to prevent the keeper from becoming accidentally disengaged from the flange H of the lower sleeve, G. The lower free end of the keeper is provided with an engaging inclined shoulder, T, which is adapted to slip over the flange at the upper end of the thimble and engage the same when the umbrella is hoisted, so as to secure the thimble to the lower end of the sleeve D.

Transverse openings are made in the upper end of the lower section of the stick and in the sleeve D, and through the said openings passes a spring-pin, U, to secure the upper end of the lower section of the stick to the sleeve. By removing the said pin the upper section of the stick and the thimble G may be removed from the lower section of the stick when the umbrella is hoisted, the keeper serving to secure the thimble to the sleeve, and thus preventing the umbrella from closing.

The umbrella is adapted to be removed from the stick, as before described, in order that the stick may be readily replaced by a new one when it becomes broken. This also enables the umbrella to be secured to the vertical stem of an umbrella-support for vehicles such as described in Letters Patent of the United States No. 326,214, granted to me September 15, 1885.

Aligned openings are made in the thimble G and in the lower reduced end of the sleeve to receive the spring-pin when the umbrella is detached from the lower section of the stick, and thus prevent the sleeve from turning in the thimble when the umbrella is detached from the stick.

Inasmuch as the keeper serves to prevent



the umbrella from closing when the stick is removed, this enables the umbrella to continue to be used in a storm of wind and rain by grasping it by the sleeve G after the stick  
5 has been broken off by the force of the wind or by any other cause.

Having thus described my invention, I claim—

1. The combination of the umbrella-stick  
10 made in two detachable sections, B and C, the sleeve D, secured to the upper section and forming the socket for the lower section, the thimble free to slide on the lower section and forming a socket to receive the lower end of  
15 the sleeve, the ribs pivoted to the upper section of the stick, the braces pivoted to the thimble and connected to the ribs, and the spring-actuated keeper O, to secure the thimble to the sleeve when the umbrella is hoisted,  
20 and thereby permit the umbrella to be detached from the lower section of the stick, substantially as described.

2. The combination of the umbrella-stick made in two detachable sections, B and C, one  
25 of the said sections having the mortise and the other provided with the tenon adapted to

enter the mortise, and thus prevent the upper section from turning on the lower one, the sleeve D, depending from the upper section and forming a socket to receive the upper end  
30 of the lower section, the ribs pivoted to the upper section of the stick, the thimble G, adapted to slide on the lower section of the stick and having the socket to receive the lower end of the sleeve when the umbrella is  
35 hoisted, the stays pivoted to the thimble and connected to the ribs, and the keeper O, attached to the sleeve and adapted to engage the flange formed on the thimble to lock the thimble to the sleeve, and the pin adapted to  
40 pass through transverse openings made in the sleeve and in the lower section of the stick to attach the sleeve to the said lower section, substantially as described.

In testimony that I claim the foregoing as  
45 my own I have hereto affixed my signature in presence of two witnesses.

FREDRICK HAITZ.

Witnesses:

WILLIAM B. CARLOCK,  
ADA M. SMITH.