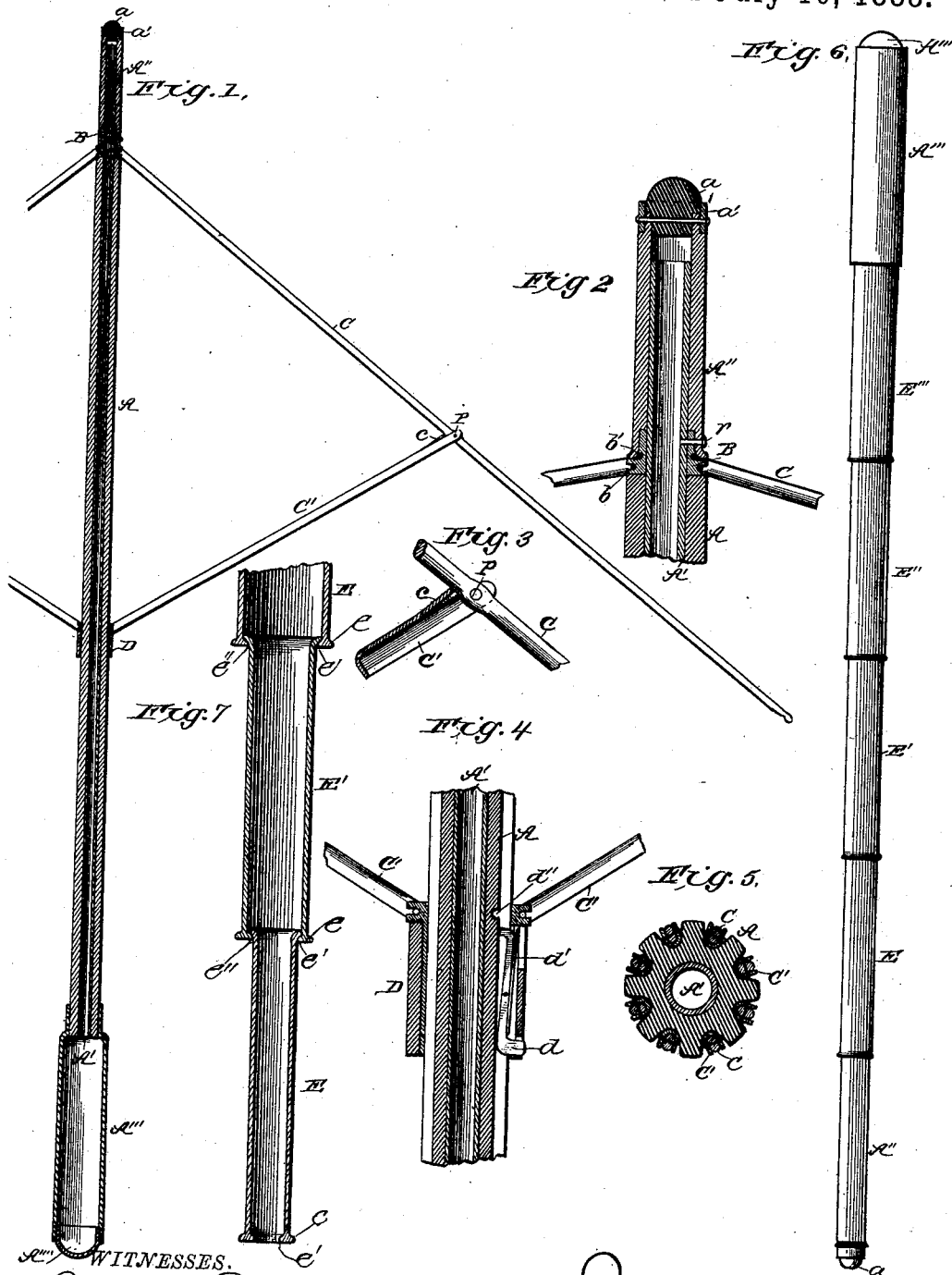


(No Model.)

J. McCORMICK.  
CANE UMBRELLA.

No. 386,078.

Patented July 10, 1888.



WITNESSES.

Jos. A. Ryan,  
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INVENTOR,

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# UNITED STATES PATENT OFFICE.

JOHN McCORMICK, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR  
TO THE McCORMICK CANE UMBRELLA COMPANY, OF SAME PLACE.

## CANE-UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 386,078, dated July 10, 1888.

Application filed January 5, 1887. Serial No. 223,424. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN McCORMICK, a resident of Washington, in the District of Columbia, have invented certain new and useful  
5 Improvements in Cane-Umbrellas; and I do hereby 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 pertains to make and use the same.

10 My invention relates to improvements in cane-umbrellas, and is fully described and explained in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a longitudinal central section of  
15 the frame of my umbrella. Fig. 2 is a similar section, on a larger scale, of the end of the umbrella shaft and the tip attached thereto. Fig. 3 is a view, partly in section and partly in elevation, showing the connection of a rib  
20 and brace of the frame. Fig. 4 is a central longitudinal section of a portion of the shaft and the runner mounted thereon. Fig. 5 is a cross-section through the shaft, the ribs, and the braces, the plane of section passing through  
25 the joints which connect the ribs and braces. Fig. 6 is a side elevation of the complete cane-umbrella, the umbrella being inclosed in a sectional shell in the manner hereinafter set forth, and Fig. 7 is a longitudinal section of a  
30 number of the sections making up the shell.

In these views, A is a tapering corrugated shaft, of any suitable material, but preferably of hard rubber, and A' is a stiffening rod or tube of metal lying within the shaft and projecting beyond the smaller end thereof.  
35 the tube A', and in contact with the end of the shaft A, is fastened a thimble, B, formed with the usual annular groove, *b*, adapted to receive the wire which secures the ribs of the frame to the shaft, and also provided with a  
40 second annular groove, *b'*, intended to receive the edge of the material with which the umbrella is covered. A tip, A'', having a flaring mouth which fits over the covering of the  
45 umbrella, is mounted on the tube above the thimble B, and the thimble and tip are both fastened to the tube by means of a rivet, *r*. A soft-rubber tip, *a*, is set in the end of the  
50 metal ring, *a'*, and a suitable rivet. A run-

ner, D, slides freely on the shaft A, and is provided with a latch, *d*, actuated by a spring, *d'*, and provided with an inwardly-extending lug adapted to enter suitable notches, *d''*, on the shaft, and thus to secure the run- 55 ner in any desired position thereon. The catch *d* lies in one of the grooves of the shaft, in which it slides freely, and thus prevents rotation of the runner on the shaft. A series of ribs, C, forming the main frame of the um- 60 brella, is joined to the shaft by means of a wire lying in the groove *b* of the thimble B, and ribs C', pivoted at their lower ends to the runner and at their upper ends, by means of pivots *p*, to the centers of the corresponding 65 ribs, complete the frame. Each of the ribs C is a solid bar, and each of the braces C' is a corrugated bar, U shaped in cross-section, the closed edge of the corrugated bar being inward and the open edge outward. The joint 70 between each brace and the corresponding rib is formed by flattening the rib, cutting away the closed edge of the corrugated brace for a sufficient distance at the end thereof, placing the separated ends of the brace on opposite 75 sides of the flattened portion of the rib, and passing a rivet through the center of the joint thus formed. The rivet is approximately in the central line of the rib, and when the frame is closed and the runner is at its lowest possi- 80 ble position on the shaft the lower half of each of the ribs lies wholly within the corresponding brace. The braces are so placed on the runner and the ribs are so spaced on the thimble B that when the frame is closed the 85 upper part of each rib and the whole of the corresponding brace lie in one of the grooves of the shaft, and since the lower half of each rib lies within the brace the entire frame lies within the grooves of the shaft, and, in fact, 90 the diameter of the entire frame when closed is no greater than the greatest diameter of the shaft itself.

A portion of the metal forming the closed edge of each of the braces C' is loosened at its 95 edges near the joint with the rib, but is still connected with the brace at one end, though free at the other, and this partially-detached strip of metal forms a tongue, *e*, which affords a yielding spring-connection of the brace and 100

rib when the frame is expanded, as shown in Fig. 3.

To convert the umbrella into a cane, I inclose it in a telescopic cover made up of sections E E' E'' E''', preferably of celluloid or hard rubber or other similar material. Each of the sections is a short cylinder, and the successive cylinders from the tip toward the base or handle of the umbrella-shaft gradually increase in diameter, their relative sizes being such that each section may be inclosed in the larger one next succeeding it, and the entire shell may be telescoped until it is wholly contained within the largest section, E'''. A hollow handle, A'', having a detachable cap, A''', is fastened to the larger end or base of the shaft A, and serves as a receptacle for the entire shell when removed from the umbrella and telescoped, as described. Each of the sections of the shell has at its upper or tip end a double annular flange, *e e'*, and at its opposite end is made flaring, and is provided with an external flange, *e''*. The inner flange, *e'*, of each section engages with the outer flange, *e''*, of the section within it when the shell is fully extended, thus preventing accidental separation of the parts through the extension of the shell, and the flange *e* of each section strikes the flange *e'* of the next larger section when the shell is telescoped, and thus prevents accidental separation of the parts through the telescoping of the shell. The flaring mouth of each of the sections prevents abrasion of the cover when the shell is slipped on or off the umbrella, and the other peculiarities of form of the sections are necessary to the satisfactory operation of the shell.

While the frame shown and described is peculiarly adapted to use with an inclosing-shell

in the formation of a cane-umbrella, I do not limit my invention, with relation to the frame itself, to its combination with a shell like the one shown and described, or any other form, since the improvements in the frame are applicable to any umbrella.

Having now described and explained my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the shaft A, the thimble B, the runner D, the ribs C, pivoted to the thimble, and the braces C', U-shaped in cross-section and pivoted to the runner with their open edges outward, each of said braces being provided at its outer end with ears which clasp the corresponding rib, C, and with the integrally-formed tongue *c*, and connected with the rib by means of the pivot P, passing through the ears and through the rib at a point approximately in its central line.

2. In an umbrella, the combination, with a suitable shaft, of a runner sliding thereon and having its inner surface longitudinally recessed, a latch pivoted in said recess and having one of its ends turned inward in a lug adapted to enter corresponding notches in the shaft and its opposite end turned outward to form a pin for operating it, and a spring interposed between the latch and the outer surface of the runner and pressing inward the inwardly-turned end of the latch, substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN McCORMICK.

Witnesses:

M. A. BALLINGER,

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