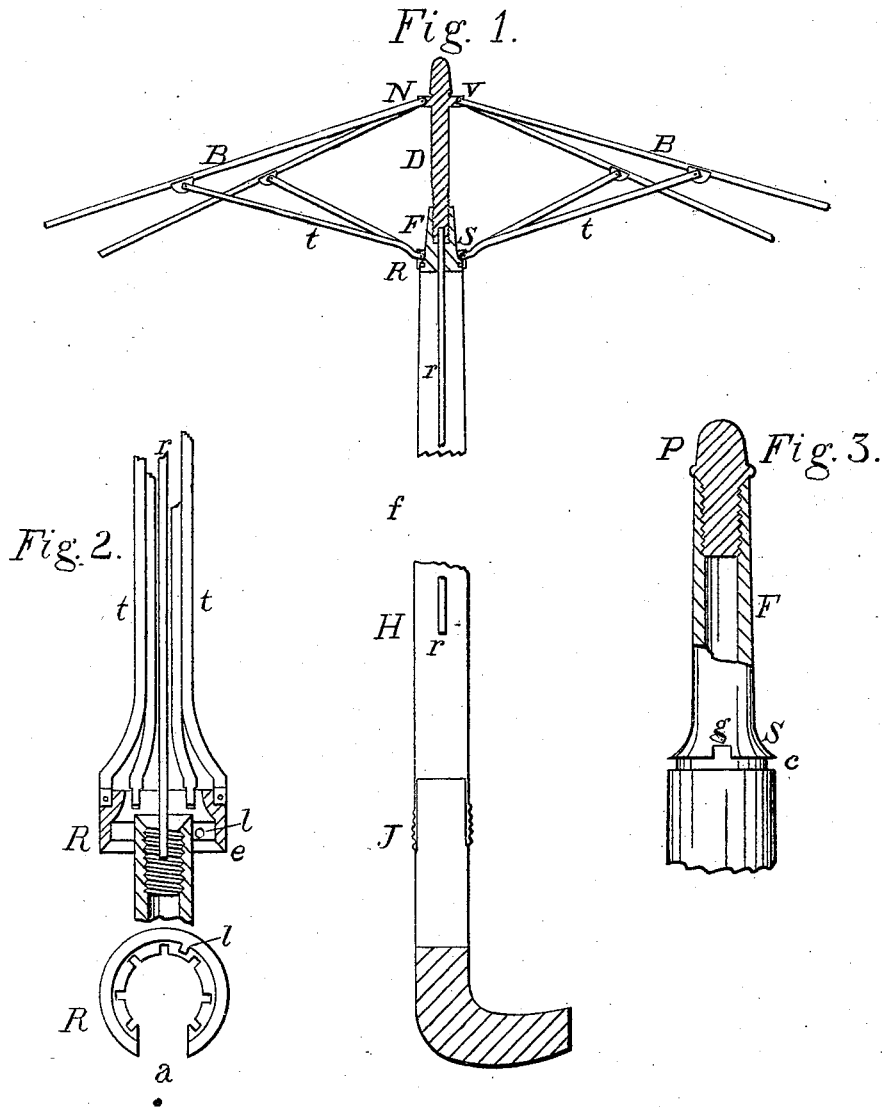


M. M. COPP.

COMBINED CANE AND UMBRELLA.

No. 189,084.

Patented April 3, 1877.



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UNITED STATES PATENT OFFICE.

MONROE M. COPP, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN COMBINED CANE AND UMBRELLA.

Specification forming part of Letters Patent No. 189,084, dated April 3, 1877; application filed August 19, 1876.

To all whom it may concern:

Be it known that I, MONROE M. COPP, of the city of Rochester, State of New York, have invented certain new and useful Improvements in Combined Cane and Umbrella Frames; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the drawing accompanying this specification, on which like letters refer to like parts throughout the same, and on which—

Figure 1 represents a longitudinal-sectional view of the handle and outspread frame. Figs. 2 and 3 represent detailed sections of the handle and finial.

This invention relates to a combined cane and umbrella, and the object of which is, first, to readily connect or disconnect the expanding or collapsing frame to the handle or cane of the umbrella; second, to inclose in the handle, retain, or abstract from it the collapsing portion or case; third, to make the said case or handle, while inclosing the frame or when opened out, secure and rigid, and also at will to produce tension or flaccidity in either or both the umbrella cover or frame. It consists in certain improvements added to the ordinary umbrella, the same being composed of ribs, stretchers, runners, notched rings, and handle, all having the usual connections and fastenings, as follows:

In place of the common solid handle, there is, for the purpose of inclosing the umbrella cover and frame out of sight, and retaining and transporting the same on all occasions when not in use, a screw-jointed case-handle, the outward end of which is a tapered finial, threaded tube, solidly united to the body of case, the same, for convenience of walking, being outwardly closed with a screw-plug, but to be withdrawn when required for the purposes of an umbrella. Instead of the notched ring being attached to the umbrella-handle, it is joined solidly to and near the outer end of a screw-rod having its inward end extending in through the orifice of the runner-ring, and on which screw the threaded tube of the handle is secured, while a lug, which is placed on the inside of the runner-ring, passes through a vertical groove on the shoulder of the tube, which lug, on passing through the vertical

groove, finds another groove cut around the tube below its shoulder, said groove furnishing a receptacle for the lug, by which the umbrella-frame is prevented from turning inside out. By rotating the handle on the screw-rod, the runner-ring in the meantime resting on the sloped shoulder of the threaded tube finial, any degree of tension may be given to the cover or umbrella frame that may be desired. It will be seen that the runner-ring (so called) is not a continuous ring, but has an opening in its side, vertically. The object of said notch or opening is, that on rotating the handle, bringing the vertical groove on the threaded tube to the position of the lug in the runner-ring, said ring may be raised upward and over the end of the threaded tube, thence allowing the threaded portion of the screw-rod to pass through the opening in the ring, thus disconnecting the ring from its position on the sloped shoulder of the threaded tube, and allowing it, as also the frame and cover, to close about the handle without disconnecting the handle or hollow finial from the threaded rod. The runner-ring is provided with a horizontal groove cut into its body, the object of which is to fasten the stretcher to said ring, by means of a wire passed through the holes in the stretchers, and firmly soldered into said groove.

In the drawing, H, Fig. 1, represents the tubular cane or handle of the umbrella, of sheet metal, wood, or paper, as the case may be, broken off at *f*, and having the screw slip-joint J, said screws being made of sheet metal, with suitable dies, then soldered to the case when of metal, and screwed on when made of wood or other material. By this joint the cane or case is opened or closed, for receiving the umbrella-frame and retaining it therein, while to the outer end of the handle is solidly united the threaded tube finial F. On the sloped shoulder S of said finial rests and rotates the runner-ring R, to which is attached the stretchers *t*. The bottom edge *e* of the runner-ring orifice is beveled inwardly, to fit the sloped seat S, and in its side is the vertical opening *a*, through which, in raising or lowering the frame or cover, the screw-rod D passes. In Fig. 2 it will be seen that the stretchers *t* bend inwardly before joining the runner-ring, the object of which is to throw

the guide-rod *r* into the center of the orifice of the runner-ring, thereby guiding the mouth of the finial-tube to the rod *r*, and thence to the screw-rod *D*, thus facilitating the connection of the handle with the frame, and providing a space in the curve of the bent stretchers for the free entrance of the hollow finial.

The notched ring *N*, to which the ribs *B* are attached, is solidly secured to the screw-rod *D*, and for securing the umbrella-cover to the rod there is above the notched ring a horizontal groove, *v*, about one-sixteenth of an inch wide and deep, sunk in the body of the rod. This screw-rod *D* is of suitable length for connecting with the threaded tube *F*, and has a small guide-rod, *r*, secured in its end by means of solder. By running the finial onto the screw-rod, by rotating the handle, the distance between the runner and notched rings may be made greater or less, thereby diminishing or increasing the tension of the cover and frame, as desired.

For protecting the orifice of the threaded tube *F* from undue wear, and preventing it from discharging any drip from time to time collecting from a wet umbrella in the hollow handle, the round-headed screw-plug *P* is loosely inserted in the countersunk orifice of the hollow finial.

The operation of my invention is as follows: To convert the umbrella to a cane, grasp the runner-ring with the left hand, and with the right run the threaded tube down off the screw-rod, by rotating the handle backward, and then fold in the stretchers, ribs, and cover close around the guide-rod; then disjoint the hollow handle at *J*, and insert the frame and cover in the hollow handle; then connect the two parts of the handle, and insert the screw-plug *P*, which completes the cane part of the invention for use.

To convert the cane into an umbrella the

operation is as follows: By rotating the parts, disjoint the handle at *J*; grasp the runner and stretchers at the runner with the right hand, and withdraw the umbrella from the case; then, having first detached the screw-plug, place the finial *F* over the guide-rod *r*, sliding the same downward, and into the closed umbrella, to the point of the screw-rod *D*, the small rod *r* serving as a sure guide for the same, the lug *l* in the runner-ring finding the vertical and horizontal grooves *g* and *c*. Then run up the finial to the desired point of tension; join the parts of the handle by running the screw slip-joints together, when the umbrella part of the invention is ready for use.

Having now described the construction and operation of my invention in a combined cane and umbrella, what I claim, and wish to secure, is—

1. The combination of the hollow handle or cane *H*, in two parts, connected by the screw slip-joint *J*, having the threaded tube finial *F*, provided with the sloped shoulder *S*, vertical groove *g*, horizontal groove *c*, and screw-plug *P*, for the purposes substantially as set forth.

2. The screw-rod *D*, to which is solidly joined the notched ring *N* and the guide-rod *r*, and having the horizontal groove *v*, in combination with the ribs *B*, stretchers *t*, and runners *R*, for the purposes substantially as herein set forth.

3. The combination of the runner-ring *R*, provided with the vertical opening *a* and lug *l*, bent stretchers *t*, ribs *B*, guide-rod *r*, and screw-rod *D*, substantially as described.

In testimony whereof I have hereunto set my hand this 17th day of August, A. D. 1876.

MONROE M. COPP.

Witnesses:

JOHN A. SPENCER,
WM. STALKER.