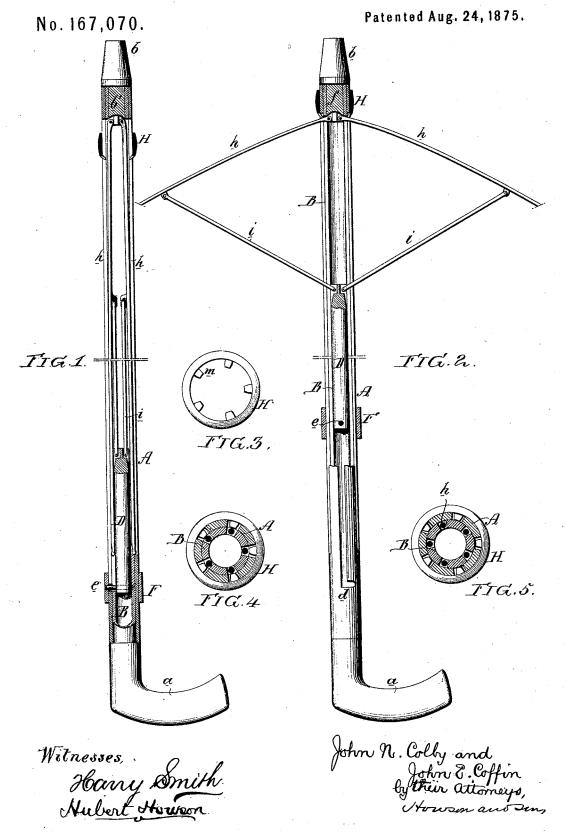
J. N. COLBY & J. E. COFFIN. Combined Cane and Umbrella.



UNITED STATES PATENT OFFICE.

JOHN N. COLBY AND JOHN E. COFFIN, OF MYSTIC BRIDGE, CONN.

IMPROVEMENT IN COMBINED CANES AND UMBRELLAS.

Specification forming part of Letters Patent No. 167,070, dated August 24, 1875; application filed June 2, 1875.

To all whom it may concern:

Be it known that we, JOHN N. COLBY and JOHN E. COFFIN, both of Mystic Bridge, New London county, State of Connecticut, have invented a Combined Umbrella and Cane, of which the following is a specification:

The object of our invention is to so combine umbrella ribs and stretchers with a slotted tube or tubes as to form an instrument convenient for use as a walking-stick or cane, and readily convertible into an umbrella-frame. This object we attain in the manner which we will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a sectional view of our combined cane and umbrella as it appears when the stretchers and ribs are contained within the tube; Fig. 2, the same, showing the ribs and stretchers open; and Figs. 3, 4, and 5, detached views illustrating our invention.

A is a tube, having as many longitudinal slots as there are ribs for the umbrella, and within this tube is a second slotted tube, B, to one end of which is secured a handle, a, and to the opposite end a tip, b. The outer tube is confined to its place longitudinally in one direction by the said tip b, and in the opposite direction by the handle a, the outer tube being at liberty to turn on the inner tube to an extent limited by a screw-pin, e, which projects from a slide, D, through one of the slots in the inner tube, without having any lateral play therein, and through a slot, d, in the outer tube, which slot permits a lateral movement of the pin, the latter being connected to a runner, F, which is arranged to both slide and turn on the outer tube.

To the continuation b' of the tip b, which, as before remarked, is secured to the inner slotted tube B, are hinged the ribs h, five in the present instance, and to the outer end of the slide D are hinged the inner ends of the stretchers i, the outer end of each stretcher being jointed to one of the ribs h. As seen in Fig. 2, the ribs h have been expanded by moving the ferrule F, and consequently the slide D, outward, and the ribs are in a condition to receive the covering, which may be of any suitable fabric, and which may be attached to the said ribs in any appropriate manner, when the instrument becomes an available umbrella or parasol.

When the instrument has to be converted into a cane, this cover is removed from the

ribs, and the ferrule F is moved along the outer tube toward the handle a, carrying with it the slide D, and the inner ends of the stretchers i, and consequently closing the ribs h, which coincide with and partly fit into the slots of the outer tube.

In order to force the ribs entirely through these slots, and into those of the inner tube, we now slide the runner H, which has hitherto occupied the position shown in Fig. 2, along the outer tube to a point about midway between the opposite ends of the ribs, in doing which internal projections m on the said runner force the ribs into the slots of the inner tube, as shown in Fig. 4, so that the outer tube can now be turned laterally, until it incloses the ribs, as shown in Fig. 5, when the instrument becomes an available walking-stick or cane, within the stem of which are effectually confined the ribs and stretchers, until the demand for an umbrella calls for their use, when, by turning back the outer tube so that its slots shall coincide with those of the inner tube, and then sliding the ferrule H back to the position shown in Fig. 2, the ribs and stretchers will be at liberty to be expanded by moving the runner F outward from the handle.

We claim as our invention-

1. In a combined cane and umbrella, the combination, substantially as described, of a slotted tube, forming the stem of a cane, with ribs and stretchers adapted to the slots of the tube, as set forth.

tube, as set forth.

2. The combination of the inner tube B, the ribs h, hinged to the end of the same, and slide D, and the stretchers hinged thereto, with the outer tube A, admitting of a limited lateral movement on the said inner tube, all substantially as set forth.

3. The combination of the runner F, the screw-pin e, the slide D, and outer and inner tubes A and B, all substantially as specified.

4. The combination of the outer and inner slotted tubes and ribs h with the runner H and its internal projections m.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

> JOHN N. COLBY. JOHN E. COFFIN.

Witnesses:

FRED. A. HOLMES, WM. F. SUTTON.