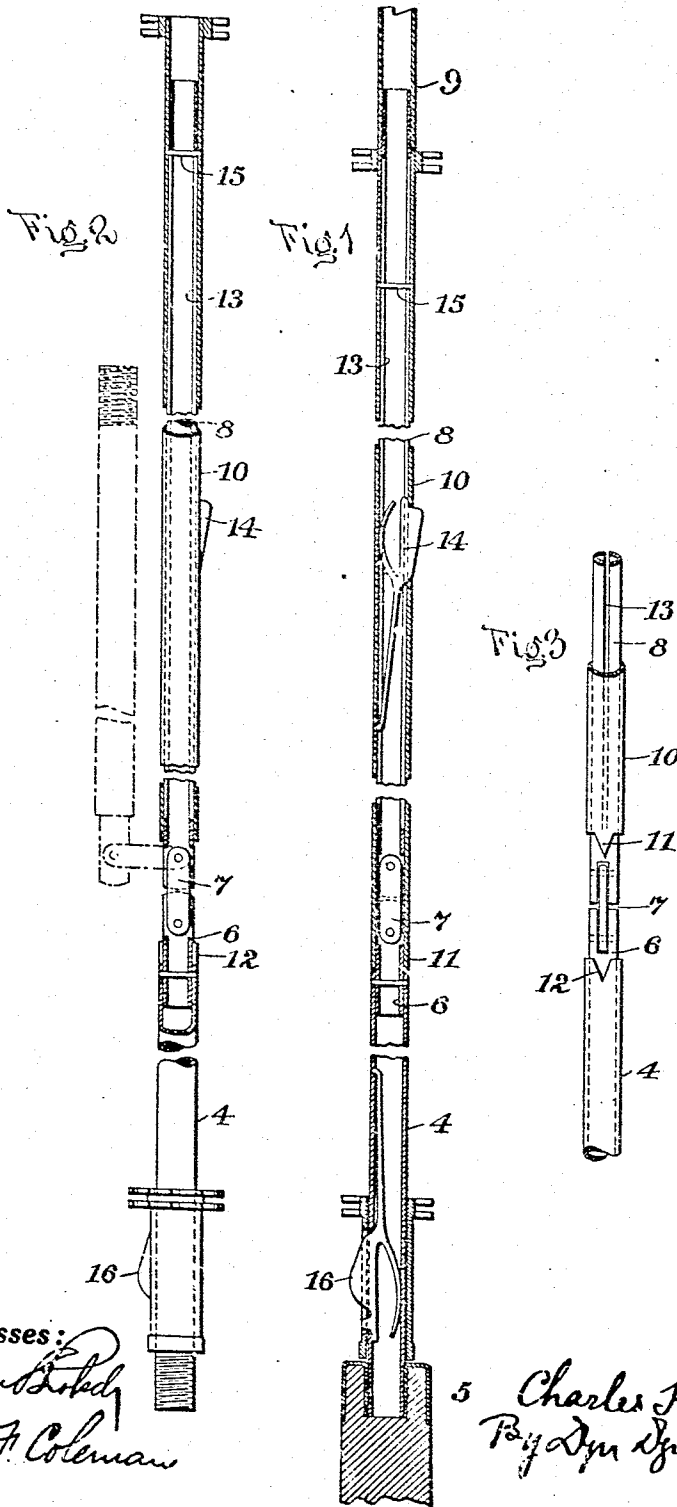


C. H. ELY.
STAFF FOR FOLDING UMBRELLAS.
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980,227.

Patented Jan. 3, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES H. ELY, OF EAST ORANGE, NEW JERSEY.

STAFF FOR FOLDING UMBRELLAS.

980,227.

Specification of Letters Patent.

Patented Jan. 3, 1911.

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To all whom it may concern:

Be it known that I, CHARLES H. ELY, a citizen of the United States of America, residing in the city of East Orange, county of Essex, State of New Jersey, have invented a certain new and useful Improvement in Staves for Folding Umbrellas, of which the following is a specification.

The object I have in view is to produce a staff for folding umbrellas, which will be cheap in construction, capable of ready manipulation to reduce it to the folded condition and to reestablish it at full length, of no greater size than the ordinary umbrella staff and furnishing, when the umbrella is extended, a strong, stiff and practical staff.

In the drawings, Figure 1 is a longitudinal section through the staff including the handle and tip with parts broken away to reduce the length of the illustration; Fig. 2 is a partial section and partial elevation of the staff with the handle and tip removed and showing the staff sections drawn apart at the joint preparatory to folding the staff, the folded condition of the staff being shown in dotted lines; and Fig. 3 is an elevation at right angles to Fig. 2 showing the adjoining sections of the staff drawn apart to disclose the joint.

The staff has a lower section 4, solid or tubular, to which the handle 5 is removably secured in any suitable manner. This lower staff section 4 is approximately half the length of the staff. At its upper end, the staff section 4 has secured rigidly to it a solid or hollow stud 6 which is attached by a pivoted link 7 to the upper staff section 8 of less diameter than the lower staff section and of approximately the same length. This section 8 is a tube or rod and is screw-threaded at its upper end to receive the removable umbrella tip 9. Upon the upper staff section is a sleeve 10 which is of the same diameter as the lower staff section. This sleeve 10 slides down over the pivoted joint between the two staff sections and holds the staff sections in line, while engaging V-shape points and recesses 11, 12 on the meeting ends guide the parts into proper position and resist rotary movement at the joint. The screwing of the umbrella tip 9 upon the upper end of the upper staff section 8 forces

the sleeve 10 downwardly and locks the parts rigidly together. The upper staff section 8 is slotted at 13 to permit the sleeve 10 to slide upon it without disturbing the position of the spring catch 14 which is carried by the sleeve 10 and projects on both sides through the slot 13. A cross pin 15 in the sleeve 10 also passes through the slot 13 and limits the movement of the sleeve 10 on the section 8. The lower staff section is provided with the usual lower spring catch 16.

The staff can be folded into approximately half its full length by first unscrewing the tip 9. The staff sections are then drawn downwardly with relation to the sleeve 10, separating the locking points 11, 12 and exposing the pivoted joint between the staff sections, when the lower staff section can be folded back on the upper staff section, as shown in dotted lines in Fig. 2. The removal of the handle, which can be done either before or after the tip is removed, completes the reduction in length of the staff and brings the folded staff into about half its full length.

To reestablish the staff, the sections are straightened, pushed upwardly into the sleeve 10 and the tip 9 screwed on to the end of 8 where it projects through 10, locking the parts together. The handle can be replaced either before or after the staff sections are locked in line.

What I claim is—

1. A staff for folding umbrellas, having in combination two sections jointed together each approximately half the length of the staff, a sleeve covering the upper staff section and sliding over the joint between the staff sections, a removable tip and means at the tip of the umbrella for holding the sleeve, substantially as specified.

2. A staff for folding umbrellas, having in combination two sections jointed together each approximately half the length of the staff, a sleeve on the upper section covering the upper section and sliding over the joint, and the umbrella tip removably secured to the upper staff section and forcing the sleeve downwardly over the joint, substantially as specified.

3. A staff for folding umbrellas, having in combination two sections jointed together

each approximately half the length of the staff, a sleeve on the upper section covering the upper section and sliding over the joint, and the umbrella tip screwed on to the free
5 end of the upper staff section and forcing the sleeve downwardly over the joint, substantially as specified.

This specification signed and witnessed
this 31st day of March, 1910.

CHARLES H. ELY.

Witnesses:

JOHN C. SANDERS,
JOHN L. LOTSCH.