

(No Model.)

G. A. KITTREDGE & W. P. KILBOURNE.
UMBRELLA.

No. 405,712.

Patented June 25, 1889.

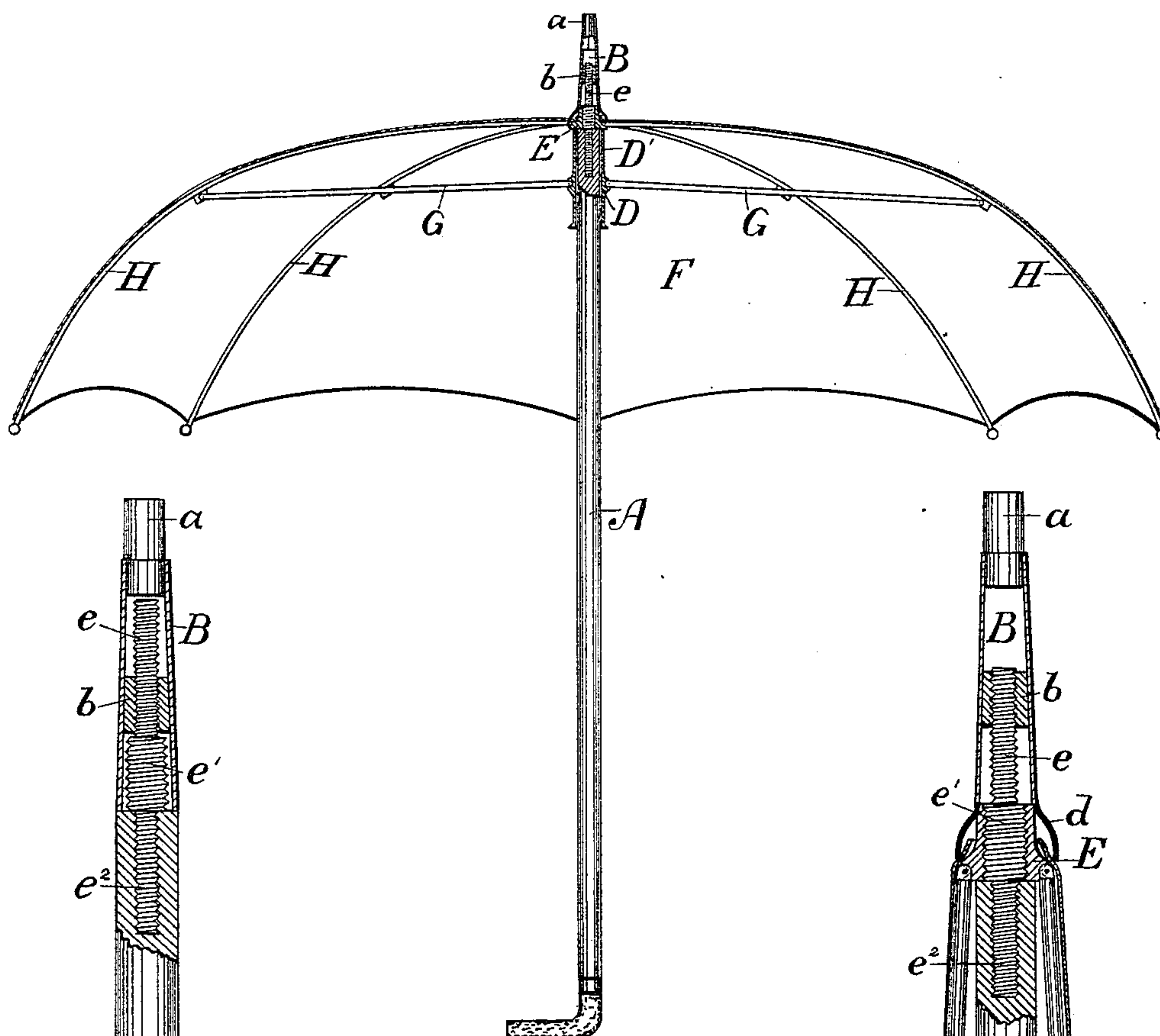


Fig. 1.

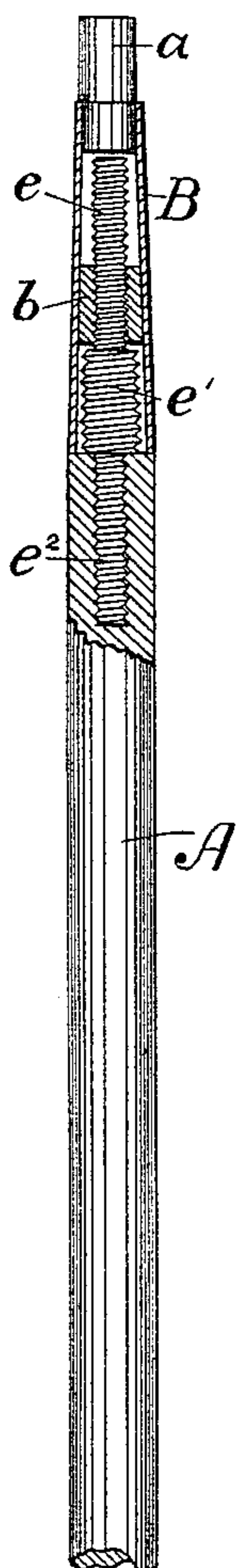


Fig. 2.

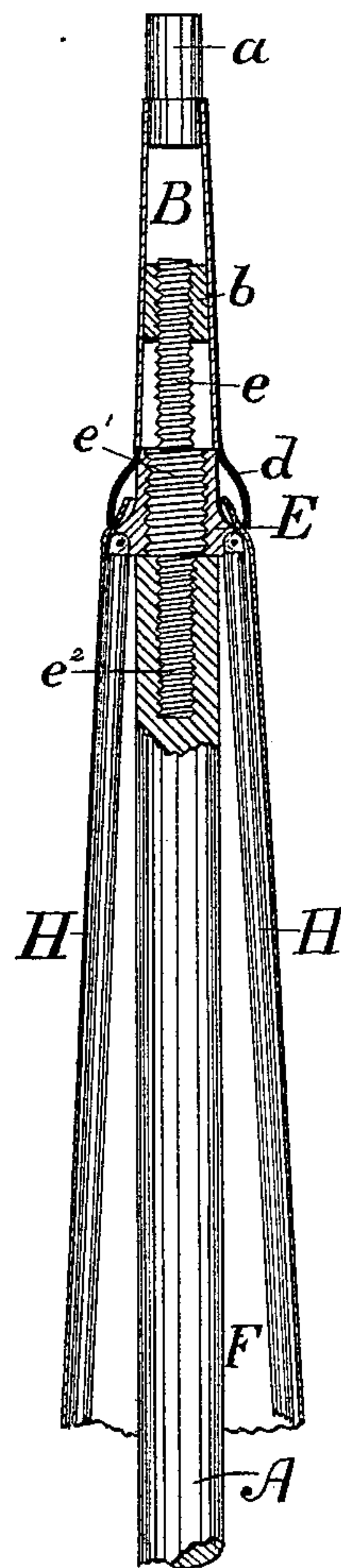


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE A. KITTREDGE AND WATSON P. KILBOURNE, OF CHICAGO, ILLINOIS.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 405,712, dated June 25, 1889.

Application filed September 27, 1888. Serial No. 286,555. (No model.)

To all whom it may concern:

Be it known that we, GEORGE A. KITTREDGE, a citizen of the United States, and WATSON B. KILBOURNE, a citizen of the Dominion of Canada, both residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

Our invention consists of an improved umbrella, so constructed as to be easily convertible into a walking-stick by removing the covering, ribs, and braces from the staff of the same, means being provided for holding the umbrella in an open position without catches or pins being used on the staff.

Of the accompanying drawings, Figure 1 is a vertical transverse section of our improved umbrella, open. Fig. 2 is a view, partly in section, of the end of the umbrella-staff when converted into a cane. Fig. 3 is a view, partly in section, of the end of the umbrella when closed.

A is the stick or staff, made plane and smooth throughout its length and without the ordinary catches of pins usually found in umbrella-sticks. In the end of the stick A is permanently screwed the portion e^2 of the single one-piece fastening-screw $e^2 e' e$, the central portion e' of the said screw being preferably of larger diameter than the end portions $e^2 e$, for reasons presently to be plainly seen.

The ribs H of the umbrella-frame are pivoted in the usual manner to the head E, the said head being centrally tapped to screw onto the enlarged portion e' .

B is a ferrule closed at its outer end by the tip a and provided with an interior screw-thread, whereby it is screwed onto the threaded portion e , the inner end of the ferrule accurately fitting against the upper surface of the umbrella-head E. In the particular form herein shown the ferrule is provided with an interior plug b , centrally tapped to screw onto the end e of the fastening-screw. The braces G are pivotally secured in the usual manner to the ribs H, and at their inner ends are pivoted to the runner D. The upper portion of the runner forms a sleeve D', the length of which determines the high-

est position of the same on the stick, the parts being so arranged as to permit the said runner to be lifted slightly beyond the position required to spread the ribs and hold the umbrella wide open, thus enabling the braces to lock automatically when the umbrella is in this open position. The upward motion of the runner in spreading the umbrella continues until the upper end of the sleeve D' bears against the under surface of the head E, at which position the inner ends of the braces G are slightly above the outer ends of the same, as shown in Fig. 1, thereby causing the said braces to automatically lock and hold the umbrella in its extended position without the aid of a spring-catch or pin of any kind in the umbrella-stick.

When it is desired to convert the umbrella into a cane, the ferrule B is first unscrewed from off the part e of the fastening-screw, and the head E is unscrewed from off the threaded portion e' , when the entire umbrella-frame secured to the head, consisting of the ribs, braces, runner, and covering F, is removed from the stick A. The ferrule B is then screwed down onto the part e , as shown in Fig. 2, until the inner end of the said ferrule bears directly against the top of the stick A, forming a cane of neat and smooth appearance.

We claim—

1. In a combination cane-umbrella, a plane staff provided with a single one-piece fastening-screw at one end, in combination with an umbrella-head centrally tapped to engage with said screw, and a ferrule provided with an internal screw-thread, whereby the said ferrule may be held on the said fastening-screw either with or without the said head, substantially as described.

2. In an umbrella, a smooth staff provided at one end with a single one-piece fastening-screw having an enlarged threaded central portion e' , in combination with a head centrally tapped to engage with the part e' , the umbrella-frame pivotally secured to said head, and a ferrule provided with a screw-thread, whereby the said ferrule may be held on the said fastening-screw either with or without the umbrella-head, substantially as and for the purposes described.

3. In an umbrella, a smooth staff A, provided with the single one-piece fastening-screw $e^2 e' e$, in combination with the head E, having the frame of the umbrella pivotally
5 secured thereto, and the ferrule B, provided with the centrally-tapped interior plug b , constructed and arranged substantially as and for the purposes described.

In witness whereof we have hereunto set our hands.

GEO. A. KITTREDGE.
WATSON P. KILBOURNE.

Witnesses:

W. A. DAUGHERTY,
GEO. W. FLANDERS.