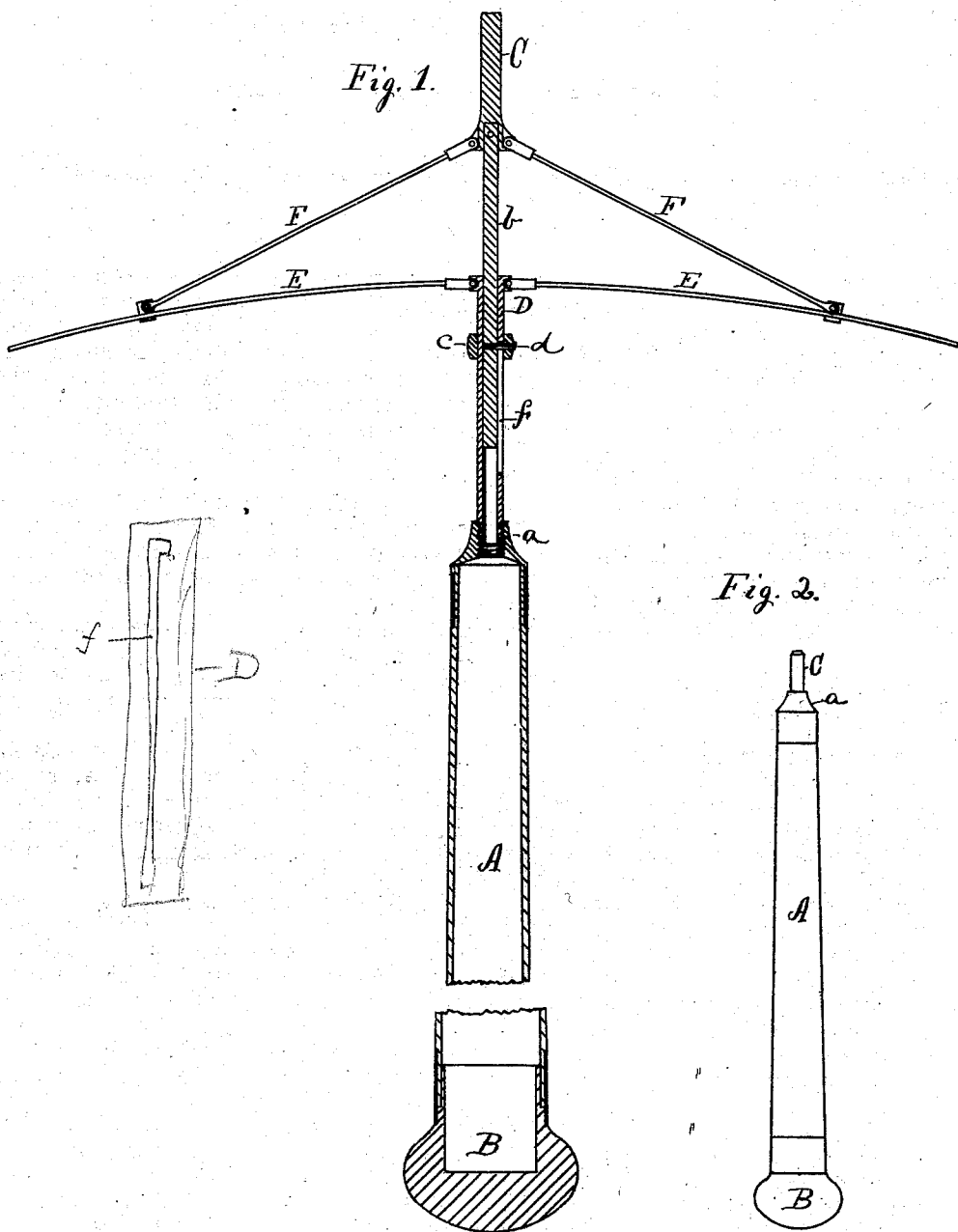


A. HILL.
Cane-Umbrellas.

No. 156,221.

Patented Oct. 27, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

ARZA HILL, OF BRISTOL, CONNECTICUT.

IMPROVEMENT IN CANE-UMBRELLAS.

Specification forming part of Letters Patent No. **156,221**, dated October 27, 1874; application filed July 13, 1874.

To all whom it may concern:

Be it known that I, ARZA HILL, of Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Cane-Umbrellas, of which the following is a specification:

My invention consists of the peculiar construction, arrangement, and combination of devices, whereby I produce a practical and convenient cane-umbrella that may be confined within a small space.

Figure 1 in the accompanying drawings is a central vertical section of a cane-umbrella which embodies my invention, and Fig. 2 is a side elevation of the same as it appears when folded.

The object of my invention is to produce an article which, by one arrangement, may be used for all the ordinary purposes of an umbrella, and by another may all be contained within its hollow shaft, and used as a walking-cane, the parts being so arranged that, in either case, there are no detached portions to be carried elsewhere than upon the article itself. To this end I arrange all the working parts of the umbrella upon a short shaft working within a hollow staff or tube, which may be increased to the proper length, for a suitable handle, by connecting it to the end of the hollow cane A. This cane is made light and hollow. The smaller end may be provided with any suitable tip or ferrule, *a*, and the larger end has a removable head, B, secured thereto in any ordinary manner.

The usual crown or head C, provided with a slotted flange, I secure to the short shaft *b*. Upon the lower end of said shaft I place a tube, D, which is also provided with a slotted flange, said tube being similar to the part which, in ordinary umbrellas, is termed the runner. Surrounding the tube D is a ring, *e*, rigidly secured to the shaft *b* by means of a pin, *d*, which passes through a longitudinal slot, *f*, in one side of the tube D, so that the shaft *b* can slide longitudinally through the tube D. The upper end of the slot *f* is provided with a recess or slot, at one side, so that when the pin *d* reaches that point the shaft *b* and ring *e* may be partially rotated,

and throw the pin *d* into said recess, thereby holding the shaft *b* in its position within the tube D, so as not to move therein except by design. The inner ends of the ribs E are secured to the flange of the tube D, and above these ordinary ribs the stretchers F are secured, with their outer ends attached to the ribs, and with their inner ends attached to the head C.

The covering (not shown) is placed over the ribs in the usual manner, and with the stretchers passing through it, or, if desired, it may be placed over both the ribs and the stretchers.

The several ribs and stretchers radiate from the tube and crown, as in ordinary umbrellas and parasols; but in order to make the drawing clear and plain I have shown only two of said parts, one upon each side.

The lower end of the tube D is externally threaded, and a corresponding thread is formed in the tip *a* of the hollow cane A, so that the two may be secured together, whereby the tube and cane together form the staff or handle of the umbrella.

As shown in the drawings the device is open or spread. To close or fold the device, the ring *e* is rotated sufficient to throw the pin *d* from its recess into the slot *f*, when the shaft *b* is allowed to slide farther into the tube D, thus bringing the inner ends of the ribs and stretchers toward each other until the ribs close upon the handle. The cane A is then detached from the tube D, the head B is removed, and the parts C D *e* *b* *d* E F and the covering are placed inside of the cane A, and the head replaced, when the device is apparently nothing but a walking-cane.

Instead of securing the shaft *b* from longitudinal movement in the tube D, by the means described, the spring ordinarily employed for that purpose may be used. Other convenient means may also be substituted for the threaded ends, by which to attach and detach the tube D and cane A.

Although the parts are very different from those in the ordinary umbrella, it will be noticed that it is operated in substantially the same manner, viz., opened by pushing the

ring *c* upward, and then securing it in place, and closed by releasing it, and allowing it to slide downward.

I claim as my invention—

1. The shaft *b*, tube *D*, and ring *c*, in combination with the bows and stretchers of an umbrella, constructed and arranged substantially as and for the purpose described.

2. In an umbrella, the hollow staff or handle *A B*, in combination with the tube *D*, shaft *b*, and ring *c*, constructed and arranged substantially as and for the purpose described.

ARZA HILL.

Witnesses:

JAMES SHEPARD,
FRANK G. LANE.