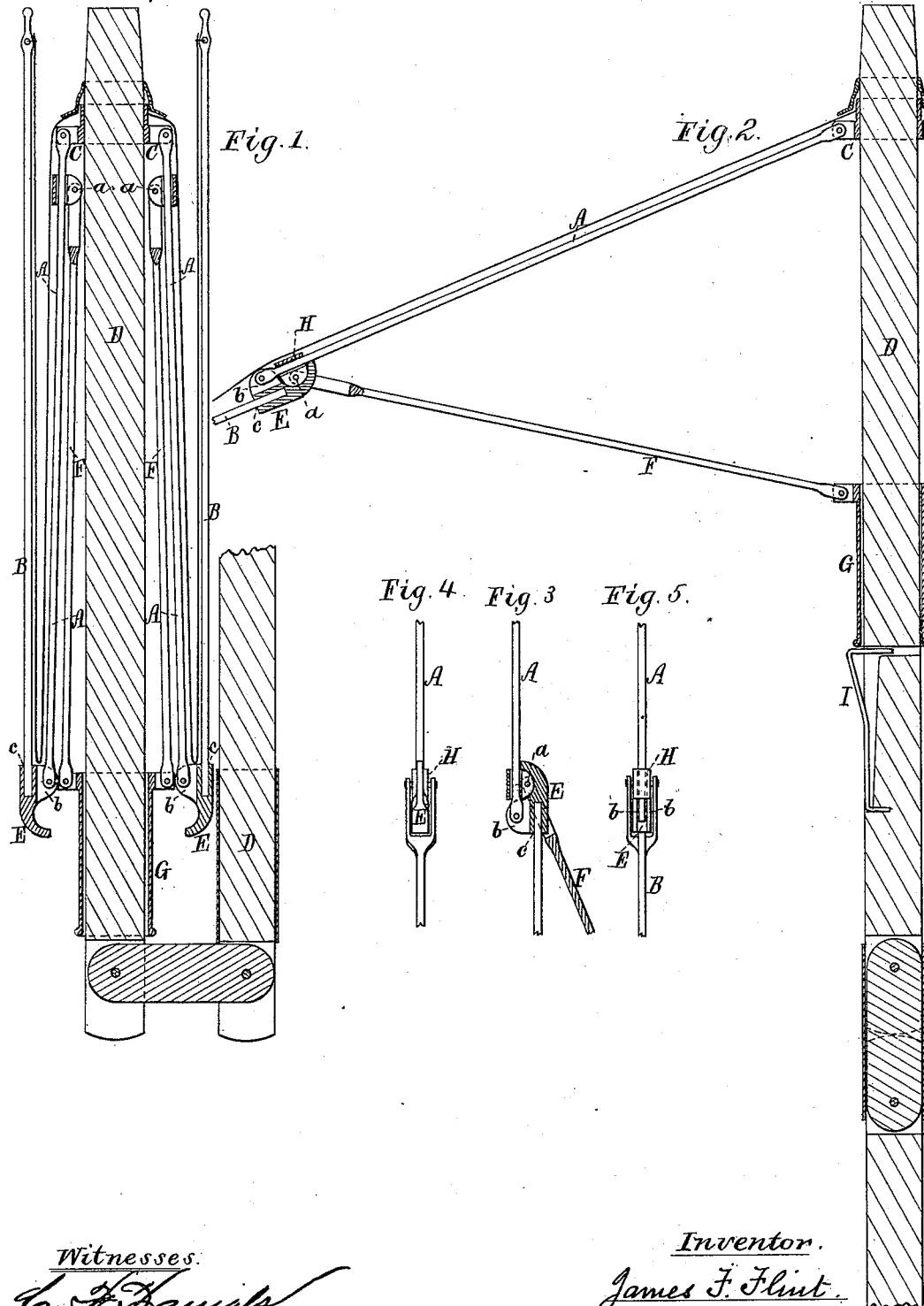


(No Model.)

J. F. FLINT.
FOLDING UMBRELLA.

No. 419,325.

Patented Jan. 14. 1890.



Witnesses:

L. F. Daniels
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UNITED STATES PATENT OFFICE

JAMES F. FLINT, OF WEST PEABODY, MASSACHUSETTS.

FOLDING UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 419,325, dated January 14, 1890.

Application filed July 22, 1889. Serial No. 318,240. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. FLINT, a citizen of the United States, residing at West Peabody, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Folding Umbrellas; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a longitudinal section showing the position and arrangement of the ribs and braces when the umbrella is in a folded state. Fig. 2 is a similar view showing the position of the ribs and braces when the umbrella is open for use. Fig. 3 is a longitudinal section of portions of the parts A and B, the hook E, and the clasp H, and brace F before the umbrella is opened. Fig. 4 is an inner side view, and Fig. 5 an outer side view, of the parts shown in Fig. 3.

The nature of my invention is defined in the claims hereinafter presented.

In carrying out my invention I construct the ribs of the umbrella in two parts A and B, the upper part A being pivoted at its upper end to the flanged collar C, fixed to the stick D in the usual manner, the lower end of said part A being pivoted between and to the ears *b b* of a hook E, which is socketed at *c* to receive and be fixed to the upper end of the lower portion B of the ribs, as shown. The braces F at their lower ends are pivoted to the slide G, and at their upper ends are forked in the usual manner and connected to a clasp H, which encircles and is adapted to slide on the part A of the ribs, the ears of said clasp extending between the prongs of the forked ends of the braces and being pivoted thereto, as shown at *a*.

The ribs of the umbrella being in a contracted state, as shown in Fig. 1, when it is desired to open the umbrella the joints of the stick should first be secured, then it should be held by the handle in a vertical position, and on shaking it the braces F and

slide G will descend, the clasps H bringing up against the ears of the hooks E, and at the same time the parts B of the ribs will fall or swing outward and downward, and during such movement of the said parts B the prongs of the hooks E will pass between the prongs of the forks of the braces F and bring up against the part A of the ribs and inclose the ears of the clasps H within the hooks, as shown in Fig. 3. Next, move upward the slide G on the stick till held by its catch I, which will hold the ribs in an extended position, as usual. The covering of the umbrella will also curve the parts B of the ribs, which will cause the points of the hooks to bear firmly against the parts A and securely hold the clasps H in position thereon. (See Fig. 2.)

To close and fold the umbrella, release the slide G from its catch I and draw said slide downward to its fullest extent. Next, clasp the umbrella with the hand on the outside just above the clasps H and turn it top down, and with the free hand cause the parts B to swing outward and downward alongside the parts A. Next, push the slide G toward the top end of the stick as far as it will go, or until the clasps H bring up against the collar C. Next, fold the stick alongside the sections of the ribs.

The stick is provided with the requisite number of joints to admit of its being reduced in length to correspond with or come within the length of the other parts of the umbrella when folded.

The hook E may be constructed with a single ear *b*, and the lower end of the part A forked to receive and be pivoted to said ear; but I prefer to make it with two ears, as shown.

Having described my invention, what I claim is—

1. In a folding umbrella, the section B of the ribs provided with the hook E, the section A, pivoted to said hook, and the brace F, provided with the clasp H, pivoted to it and arranged to slide on the section A of the ribs, in combination with the collar C, the slide G, the stick D, and the covering of the umbrella, substantially as shown and set forth.

2. The hook E, adapted to be fixed to one

section of the rib and pivoted to the other
section of said rib, in combination with the
said rib-sections, the brace provided with the
clasp to slide on the upper section, and the
5 clasp adapted to enter the hook, all arranged
and operated essentially as set forth and rep-
resented.

In testimony whereof I affix my signature
in presence of two witnesses.

JAMES F. FLINT.

Witnesses:

S. N. PIPER,
JOSEPH ABBOTT.