

(No Model.)

2 Sheets—Sheet 1.

J. J. HIM.
WALKING STICK, &c.

No. 476,015.

Patented May 31, 1892.

FIG. 1.

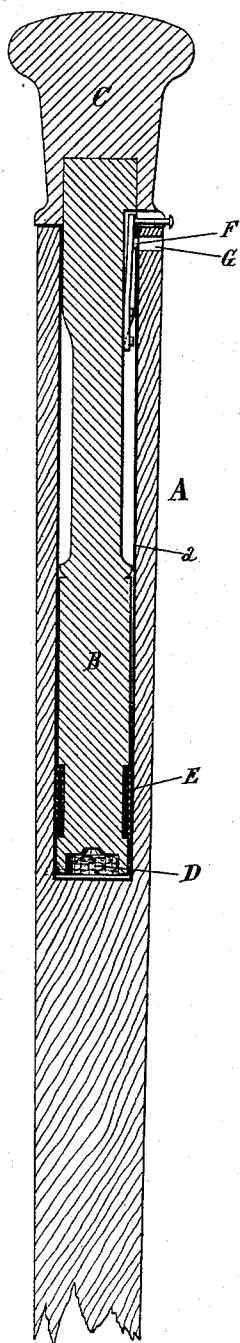
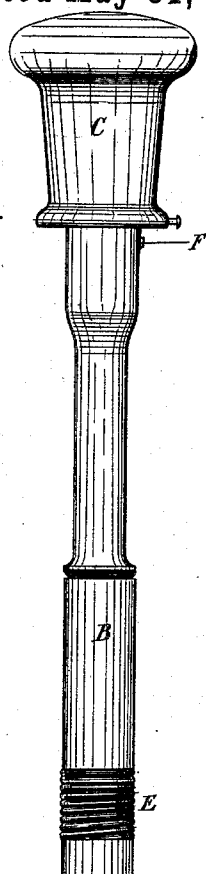


FIG. 2.



Witnesses:

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2 Sheets—Sheet 2.

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FIG. 3.

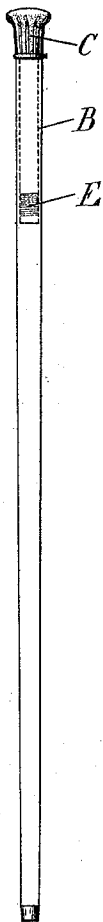


FIG. 4.

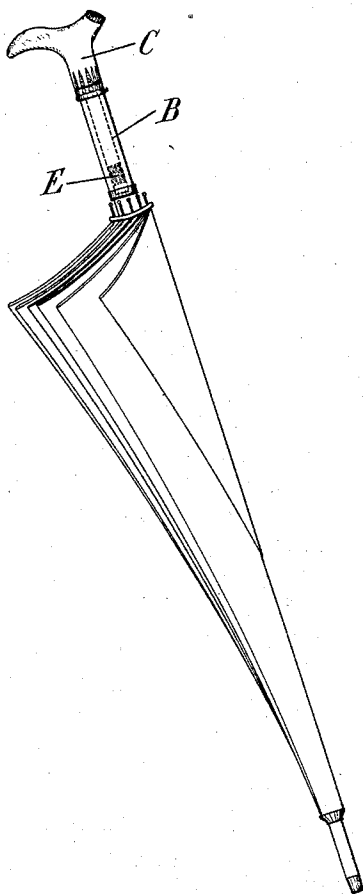
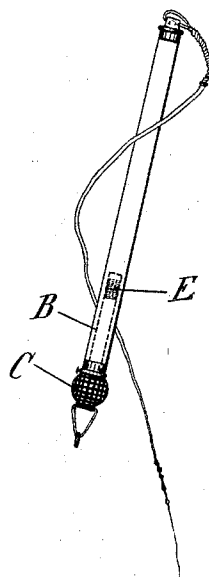


FIG. 5.



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UNITED STATES PATENT OFFICE.

JEAN JULES HIM, OF PARIS, FRANCE.

WALKING-STICK, &c.

SPECIFICATION forming part of Letters Patent No. 476,015, dated May 31, 1892.

Application filed September 11, 1891. Serial No. 405,371. (No model.)

To all whom it may concern:

Be it known that I, JEAN JULES HIM, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful
5 Improvements in Walking-Sticks, Sticks for Umbrellas, Whips, &c., of which the following is a description.

It is known how difficult it is to procure a light when exposed to the wind. The matches
10 will sometimes not take fire at all, and as it is necessary to allow the sulphur and the phosphorous to be burned before using them they will often be extinguished before having been used. The improved matches (Swedish wax
15 matches) present to a certain degree the same disadvantage and the tinder-boxes present the drawback that they must be carried in and wear the pocket, not to speak of the difficulty which is often experienced in lighting them.
20 To avoid all these disadvantages, I have arranged the fire-making apparatus in an article that is generally carried in the hand—as, for instance, a cane, umbrella, whip, &c. It is a well-known physical phenomenon that
25 when a column of air is rapidly and strongly compressed it will be heated sufficiently to light a piece of German tinder placed therein. My invention is based upon this principle and is illustrated in the annexed drawings, forming a part of this specification, and wherein—

30 Figure 1 is a longitudinal sectional view of a portion of a walking-stick embodying my invention. Fig. 2 is a view of the handle proper and the piston or plunger carried thereby. Fig. 3 is a side view of a walking-stick embodying my invention. Fig. 4 is a similar
35 view of an umbrella, and Fig. 5 is a view of a whip constructed in accordance with the terms of my invention.

40 In the specific construction illustrated in the drawings above referred to, A represents a walking-stick the upper end of which is hollowed to receive a bushing *a* of metal or other suitable material. Within the bushing *a* I
45 arrange a piston or plunger B, the lower end of which is recessed to receive a charge of in-

flammable material, such as German tinder, fuse, or the like, while to the upper end of the plunger there is secured a knob or handle C. Near its lower end the piston or plunger B
50 carries an encircling line of packing E and at its upper end a spring-catch F, that is arranged to enter an aperture G, formed in the upper part of the stick A.

To ignite the tinder, the knob or handle C
55 is firmly grasped, the catch released, and the handle slightly turned in either direction to bring the catch out of register with the aperture G. The piston is then drawn outward and subsequently forced downward quickly
60 to compress the air, and then if the piston be withdrawn the tinder will be ignited.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

65 1. A walking-stick, &c., formed with a hollow handle end, in combination with a piston or plunger that is recessed to receive a charge of tinder, substantially as described.

2. A walking-stick, &c., formed with a hollow handle end, in combination with a bushing that is fitted within said hollow end and a piston or plunger that is recessed to receive
70 a charge of tinder, substantially as described.

3. A walking-stick, &c., formed with a hollow handle end, in combination with a piston
75 or plunger that is recessed to receive a charge of tinder and provided with an encircling line of packing, substantially as described.

4. The combination, with a walking-stick, 80 having a hollow upper end, of a plunger mounted to slide in said hollow end and recessed to receive a charge of tinder and a catch carried by the plunger and arranged to engage the stick, substantially as described.

85 In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JEAN JULES HIM.

Witnesses:

ROBT. M. HOOPER,
I. N. BERNHARD.