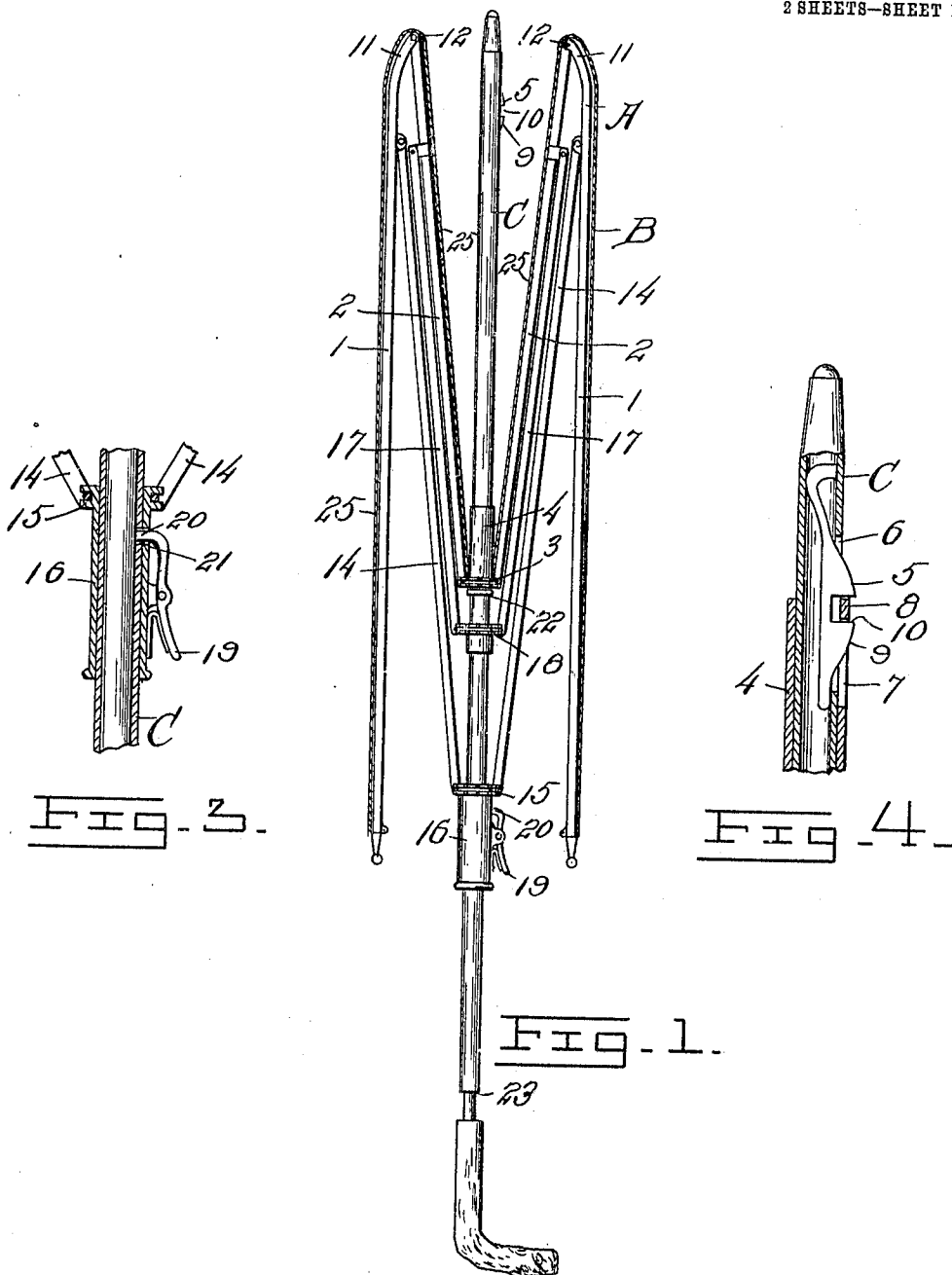


R. E. SAVERY.
FOLDING UMBRELLA.
APPLICATION FILED JULY 16, 1907.

950,458.

Patented Feb. 22, 1910.

2 SHEETS—SHEET 1.



Witnesses
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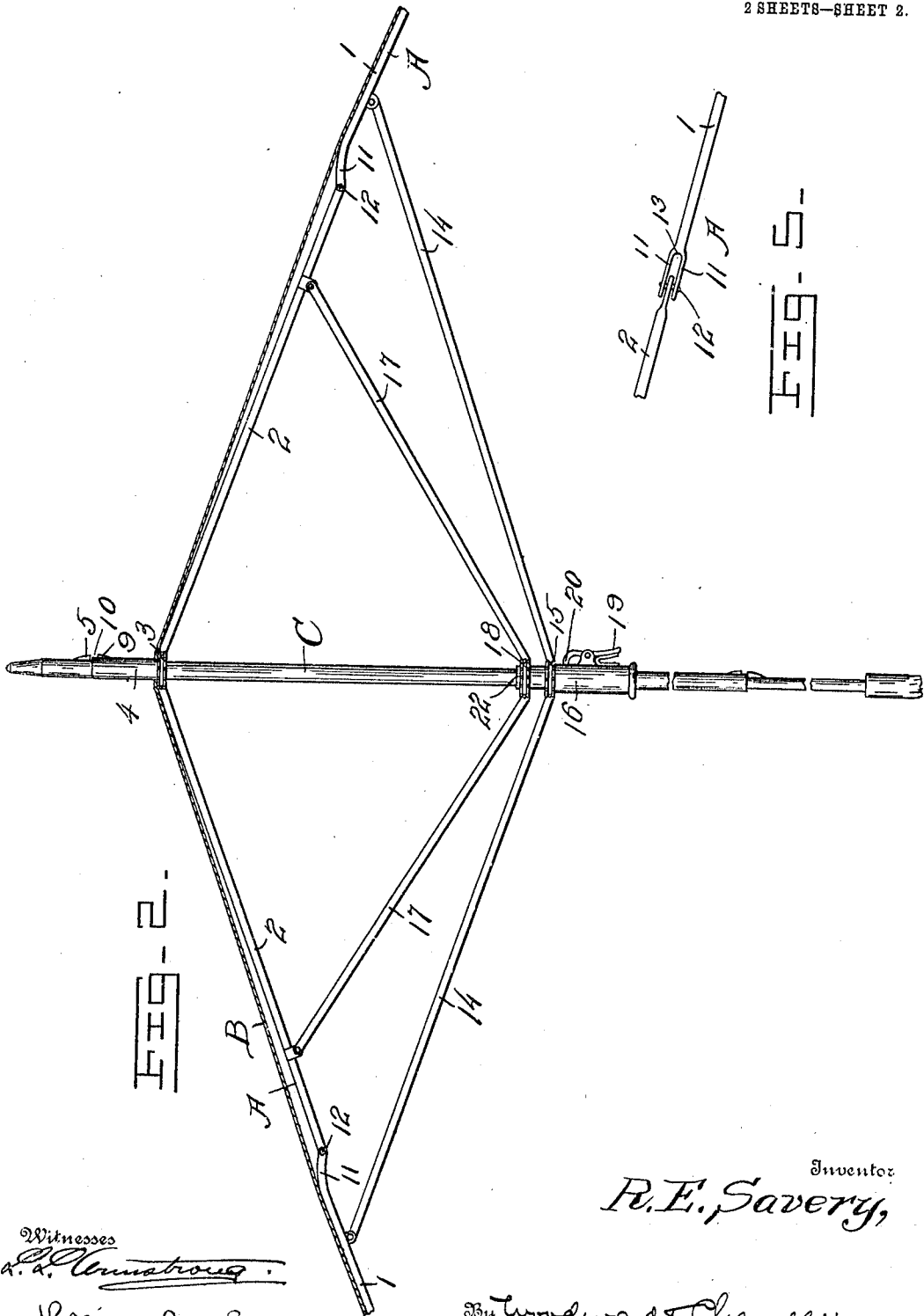
Attorneys

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UNITED STATES PATENT OFFICE.

ROBERT E. SAVERY, OF KNOX, INDIANA, ASSIGNOR OF ONE-HALF TO WILLIAM C. PENTECOST, OF KNOX, INDIANA.

FOLDING UMBRELLA.

950,458.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed July 16, 1907. Serial No. 384,015.

To all whom it may concern:

Be it known that I, ROBERT E. SAVERY, a citizen of the United States, residing at Knox, in the county of Starke and State of Indiana, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification.

This invention relates to umbrellas and has for its object to provide an umbrella arranged to be folded to small compass so that it may be easily carried in a suitcase or satchel.

Another object is to provide a folding umbrella which may be easily and quickly operated and which, when folded, will present no loose folds of cloth.

It is another object of the invention to provide improvements in the jointing of the ribs, the construction and relation of the ribs and the braces to each other and to the slides, ferrules and locking means, to the end that the umbrella may be conveniently, quickly and compactly folded and raised for use as a sunshade or protection against rain.

The nature of the improvements may be ascertained from an inspection of the device portrayed in the annexed drawings, in which the said improvements are shown to be embodied, and which will be described in detail hereinafter, with reference to the drawings, and then be pointed out with particularity in the subjoined claim.

Of the drawings—Figure 1, is a view of the frame and the upper portion of the staff, in folded position. Fig. 2, shows the position of the parts constituting the frame when the umbrella is partially raised. Fig. 3, is a view of the lower runner and its locking catch. Fig. 4, is a sectional detail view showing the construction of the upper ferrule, the notched catch and the relation of the parts. Fig. 5, is a detail view of one of the ribs at its joint.

Parts are represented as broken away in several of the views in order to fully and clearly illustrate the construction.

Similar characters of reference designate similar parts or features, as the case may be, wherever they occur.

In carrying out my invention I form the ribs A of the two parts, 1 and 2, which are connected by a joint, and which carry the usual cover B which may be of any suitable material. The inner ends of the upper sections 2, of the ribs are pivoted on a wire in

the peripheral groove of the ring 3 forming a part of the upper ferrule 4, as is common, which ferrule is adapted to slide up and down on the staff or stick C. The latter is provided at its upper end portion with a notched spring-operated catch, 5, arranged in a slot, 6, in the staff and adapted to be pressed inward against the stress of its actuating spring which normally presses the notched part of the catch outward beyond the circumference of the staff. The catch 5 is beveled inward above and below the notch formed therein.

The ferrule 4 is provided with a vertical slot 7, which extends nearly through its top or upper end, the intact part at the upper end of the slot forming a bar 8, so that when the ferrule 4 is moved up, the bar 8 will slide over the lower beveled edge 9 of the catch 5 and snap it into the notch 10 of the latter where it will be held and lock the ferrule in position on the staff.

The outer or lower ends of these upper sections 2 of the ribs are provided with laterally extended perforations through which, and through holes in the bifurcated ends 11 of the adjacent ends of the lower sections 1 of the ribs, pivot pins 12 extend and are riveted on their ends so as to keep them in place. The bifurcation on the upper end of each section 1 is made in the form of a clevis 13, having the arms thereof curved inward at their end portions. This construction is provided in order that the parts first mentioned may operate freely, particularly when the cover is on the frame.

Each part of the ribs is provided with independent braces—the part 1 with the braces 14 pivoted as usual to the ribs at their outer ends, and at their inner ends upon a wire connected with a ring 15 on the upper end of the runner 16, adapted to slide on the staff. The braces 17 of the part 2 of the ribs are pivoted as usual at their outer ends on the latter, and at their inner ends on a wire carried on the upper end of a slide 18 on the staff.

The sleeve 16 is provided with a spring actuated thumb latch 19, pivoted between ears extending up from a kind of pinch collar secured on the sleeve, which latch is provided at its upper end with a pin 20, constituted by bending at a right angle, a portion of the upper end of the wire from which the latch 19 is formed.

A hole or pin opening 21 is made in the staff at a point where the pin 20 of the latch may engage it when the umbrella is fully raised, and thus hold the sleeve 16 against movement on the staff while other parts of the umbrella are being manipulated to fully raise, or effect the initial operations of lowering and closing it. A short distance above the hole 21 is a stop 22 of any suitable form to limit the extent of the downward movement of the ferrule 4 and the upward movement of the slide 18.

The staff, as before indicated, is made in sections that are telescopically or otherwise disconnectably connected at the point 23, so that it can be adjusted to have greater or less length when used as a walking-stick, or be taken apart when it is desired to fold the article into a compact bundle. Ordinarily, the staff may be made in but two sections.

In the use of the umbrella, supposing the sections of the staff to be connected and the umbrella proper to be folded, the user will first shake the folded portions slightly to release the ribs and braces freely, then by taking hold of the staff with one hand and with the other on the runner 16, the thumb resting on the latch 19 and pressing the lower end inward, the runner 16 may be raised, raising the sections 1 and 2 of the ribs and their braces until the slide 18 is engaged by the stop 22 and the pin 20 of the latch 19 snaps into the hole 21 of the staff. In this position, the parts 1 of the ribs will drop from the ends of the parts 2 and will extend substantially horizontally. The next operation will consist of running up the ferrule 4 until the bar 8 above the slot 7 snaps into the notch 10 of the catch 5, in which position the umbrella will be fully spread. In lowering and folding the umbrella the ferrule 4 will first be released so that it can be slightly lowered and the latch 19 will be operated to release the runner 16 so that it can slide down somewhat on the staff, when the parts 1 of the jointed ribs with covering

thereon will drop from the ends of the parts 2, and then, by moving the ferrule down and pressing the cover inward along the line of the jointed ribs, the umbrella will be completely folded.

The cover B to the frame will be connected with the ribs at their joints, just below or at the base of the clevis on the inner end of the part 1, so that when the umbrella is closed, the cloth cover will be carried down from the top around the staff and over the joints in the ribs without interfering with the operation of the said joints.

What is claimed is:

The herein described umbrella, comprising a tubular staff having a slot near the upper end and a pin opening near the lower end, of a stop collar secured to said staff above said pin opening, a spring catch secured within the upper end of said staff projecting through said slot, a ferrule slidably held to said staff above said stop collar and below said spring catch said ferrule at times being in engagement with said catch, said ferrule carrying a ring, a plurality of upper rib sections pivotally secured to said ring, a slide upon said staff below said stop collar, braces extending from said slide and pivotally secured to said upper rib sections, a runner upon said staff below said slide, a latch having a reduced end to engage said pin opening, carried by said runner, braces pivotally carried by said runner, a plurality of lower rib sections secured to said upper rib sections, said lower rib sections having their secured ends curved toward said upper rib sections, and means to connect said last mentioned braces to said lower rib sections, and in the manner set forth.

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

ROBERT E. SAVERY.

Witnesses:

FRANK P. WHITSON,
JNO. L. MOORMAN.