No. 875,498. PATENTED DEC. 31, 1907.

M. BOWDEN-HAMMOND.

UMBRELLA.

APPLICATION FILED JAN. 9, 1907.

Fig. 6.

Fig. 1.

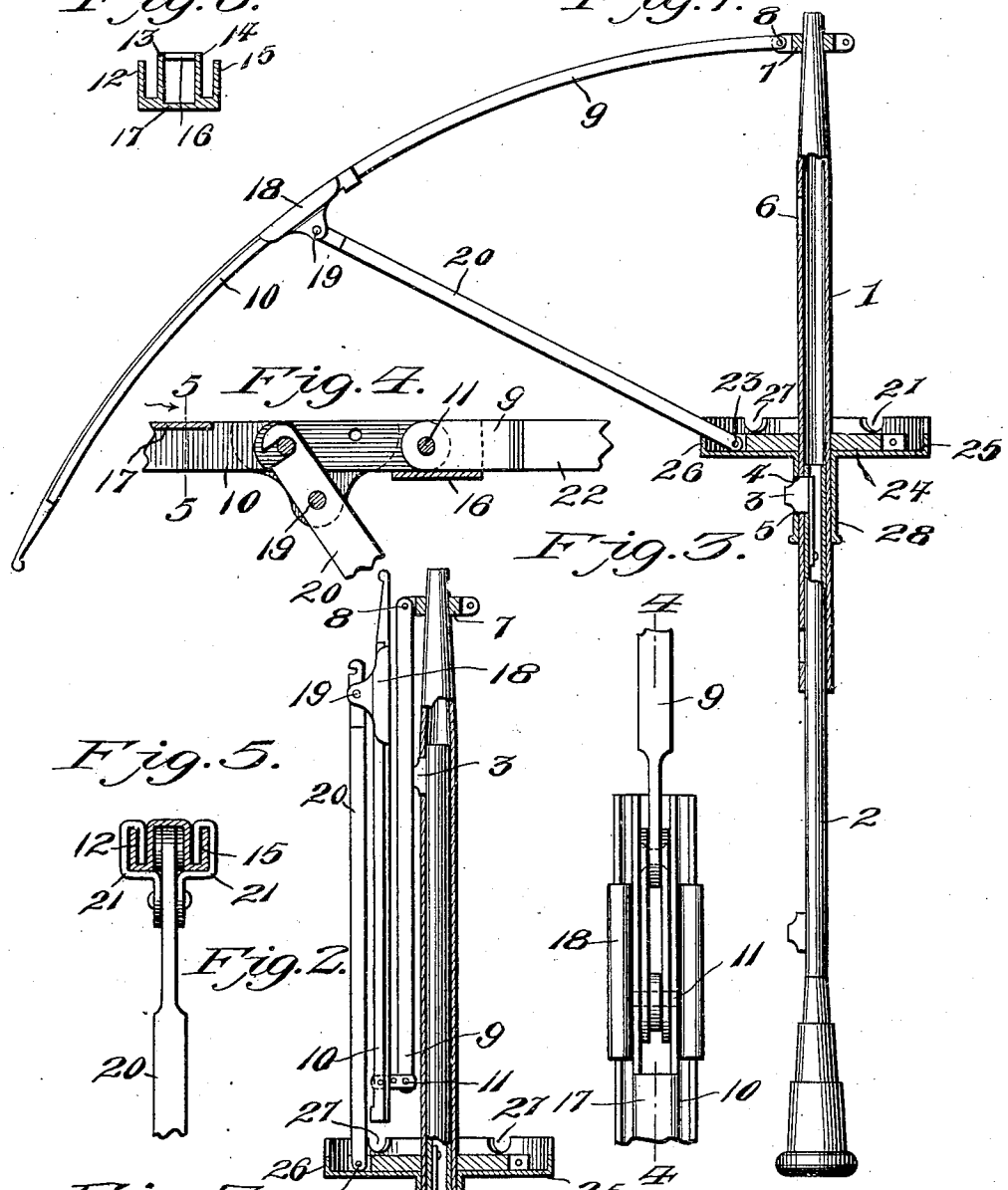

Fig. 4.

Fig. 3.

Fig. 5.

Fig. 2.

Fig. 7.

Witnesses

Edwin L. McKee

Inventor

Margery Bowden-Hammond,

By Victor J. Evans

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MARGERY BOWDEN-HAMMOND, OF ELDORADO SPRINGS, MISSOURI.

UMBRELLA.

No. 875,498. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed January 9, 1907. Serial No. 351,536.

To all whom it may concern:

Be it known that I, MARGERY BOWDEN-HAMMOND, a citizen of the United States of America, residing at Eldorado Springs, State of Missouri, have invented new and useful Improvements in Umbrellas, of which the following is a specification.

This invention relates to umbrellas, sunshades and the like, the object of the invention being to provide an umbrella, the construction of which will enable the same to be folded into compact shape so that the folded umbrella may be packed in a trunk or suit case or in a small wrapper. The construction of the umbrella is such that when it is extended for use, the several parts thereof are effectively braced.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a sectional view of an umbrella frame embodying the present invention, the parts thereof being shown in position for use. Fig. 2 is a similar view, showing the manner in which the umbrella folds. Fig. 3 is a detail plan view, showing the overlapping ends of the inner and outer rib sections. Fig. 4 is an enlarged detail section, showing the joint between the inner and outer rib sections, also the connections of one of the braces therewith. Fig. 5 is an enlarged cross-section through the same. Fig. 6 is a cross-sectional view of the inner end of one of the outer rib sections. Fig. 7 is a perspective view of the link.

The staff or stick of the umbrella contemplated in this invention comprises an upper tubular section or member 1 and a lower member 2 which may be either tubular or slotted and which fits telescopically within the upper member 1, as clearly shown in Fig. 1. The member 2 carries a spring catch 3 which, when the umbrella is extended as shown in Fig. 1, snaps into a notch 4 in the member 1 and another notch 5 registering therewith and formed in the runner hereinafter described, as shown in Fig. 1. The member 1 is also provided at a higher point with a second notch or slot 6 into which the catch 3 snaps when the two members 1 and 2 of the stick are telescoped together in folding the umbrella.

Upon the upper end of the stick or staff is mounted a top notch 7 of familiar form adapted to receive the extremities of the ribs which are connected pivotally thereto, as shown at 8. Each of the ribs is composed of an inner section 9 and an outer section 10, and these sections are pivotally connected together at 11. The outer section 10 consists of four parallel webs or flanges 12, 13, 14 and 15, which are connected together at their outer ends, as shown at 16, and connected together at their inner ends by a cross-bar or web portion 17 which forms a stop as hereinafter explained. It will be noted that the two inner flanges 13 and 14 are of greater width than the outer flanges 12 and 15 and said inner flanges form the body of the rib, while the outer flanges 12 and 15 form guides for a slide 18 which is pivotally connected at 19 to the outer end of a brace 20, it being understood that a brace 20 is used for each rib of the umbrella.

The slide 18 comprises the oppositely extending arms 21 which embrace the sides of the outer rib section 10 and are bent inward over the top edges of the flanges 12 and 15 and downward behind said flanges, as shown in Fig. 4, whereby the slide is coupled to the lower rib section and adapted to slide lengthwise thereof in folding and unfolding the umbrella.

The inner rib section 9 of each rib is substantially U-shaped, as shown in Fig. 5, the flanges 22 thereof being disposed reversely to the flanges of the outer rib section and being spaced apart so that they are received between the flanges 13 and 14 of the outer rib section to which they are pivotally connected by means of the pivot 11 shown in Fig. 3. It will also be observed that the end portions of the inner and outer rib sections overlap each other or extend beyond the pivot 11, so as to obtain a bracing action between the rib sections, and when the rib is extended or sprung outward, the stop 17 bears against the under side of the inner rib section 9 and prevents the outer rib section from dropping down. It will also be noted that when the ribs are sprung outward, the outer extremities of the braces 20 bear against the end portions of the inner rib sections, as shown in Fig. 3, thus forming an additional lock for the ribs.

The braces 20 are all connected pivotally at their inner ends, as shown at 23, to the main body 24 of the runner. In carrying

forward the present invention, said runner is provided with an outwardly extending flange 25 having an upstanding annular rim 26 which is provided with notches 27 to receive and engage the braces 20, as the runner is pushed upward on the staff or stick which has the effect of causing the slides 18 to correspondingly move upward on the outer rib sections 10 until they reach and are arrested by the stops 17. The runner is also provided with the downwardly extending hub portion 28 through which the slot 5 is formed to receive the spring catch 3 hereinabove described.

The extended position of the umbrella is illustrated in Fig. 1, and it will be understood that by pressing inward the catch 3, the runner may move downward on the staff or stick, thus relieving the tension on the braces 20 and ribs. As soon as the slides 18 have moved outward part way along the outer rib sections 10, the joint formed by the pivot 11 will break inward and when the runner reaches its lowermost position and the slides 18 reach the outer limit of their movement on the outer rib sections, the umbrella frame will be folded in the manner shown in Fig. 2. At the same time, the member 2 of the stick may be slid into the member 1 until the catch 3 engages in the notch or slot 6.

I claim:

1. A folding umbrella embodying a stick, a runner mounted thereon, ribs pivotally connected to the stick and each embodying an inner and an outer section, the same being overlapped and pivotally connected at their adjoining ends to form a joint which will break inward, and a brace for each rib pivotally connected to the runner and having a slide pivotally connected to its outer end and movable lengthwise of the outer rib section, substantially as described.

2. A folding umbrella comprising a stick, a runner, ribs pivotally connected to the stick and each comprising an inner and an outer section, said sections having their adjoining ends overlapped and pivotally connected and provided with a stop which will adapt the joint to break inward, a slide coupled to the outer rib section and adapted to move lengthwise thereof and to embrace the overlapped portions of the rib sections, and a brace interposed between said slide and the runner, substantially as described.

3. A folding umbrella comprising a stick, ribs pivotally connected thereto and each comprising an inner section and an outer section, said sections being overlapped at their adjacent ends and pivotally connected where they overlap to form a joint which will break inward, flanges extending lengthwise of the outer rib section, a slide engaging said flanges and movable lengthwise thereof and also adapted to embrace the overlapping portions of the inner and outer rib sections, a brace extending inward from the slide of each rib, and a runner to which the several braces are pivotally connected.

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

MARGERY BOWDEN-HAMMOND.

Witnesses:

EMMA BOWDEN,

C. H. STILESMAN.