

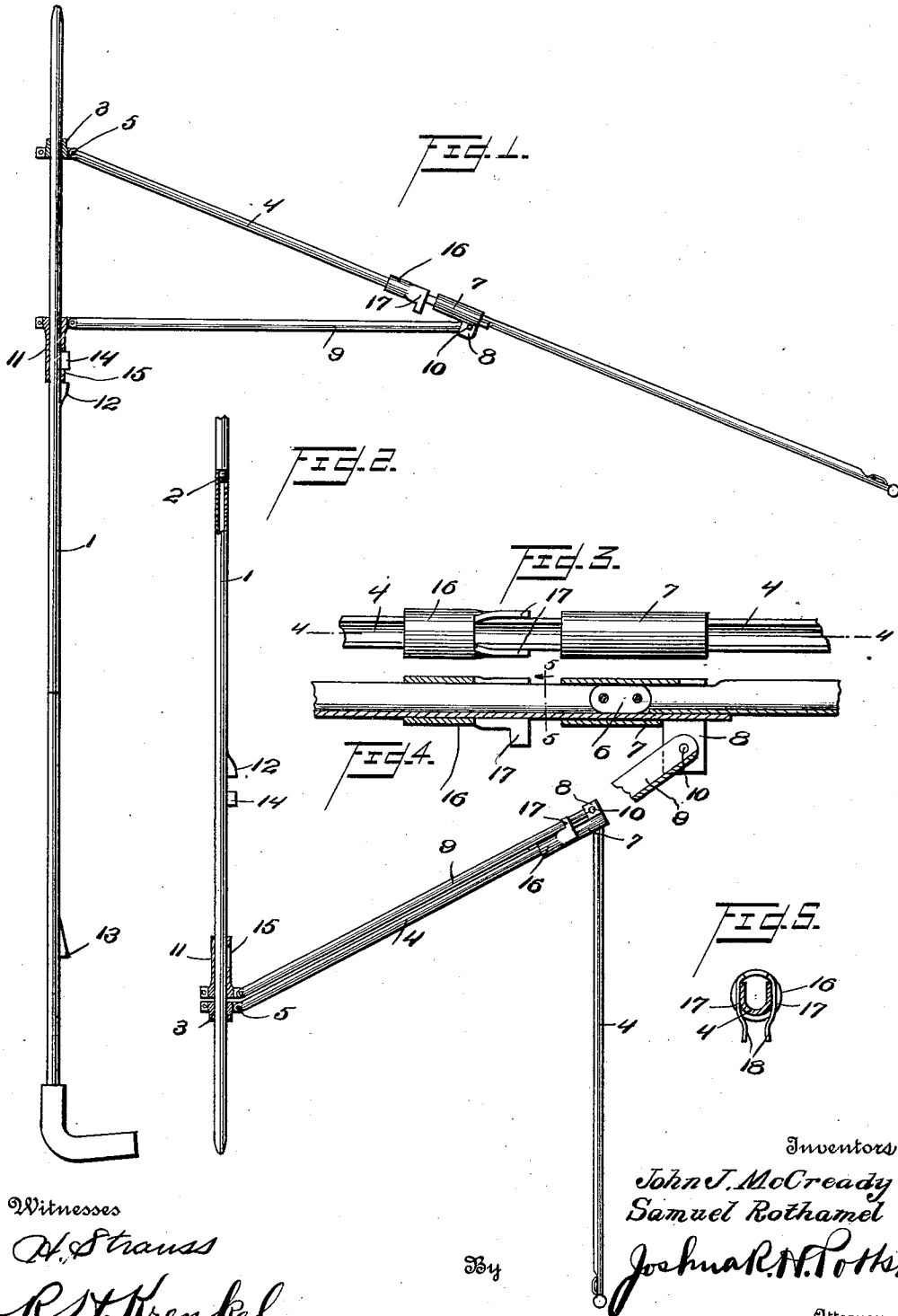
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UMBRELLA.

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UNITED STATES PATENT OFFICE.

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UMBRELLA.

1,008,174.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN J. MCCREADY and SAMUEL ROTHAMEL, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

Our invention relates to improvements in umbrellas, and more particularly to umbrellas of the folding or collapsible type, which permits the umbrella to be packed in a small space, as for example, in a trunk or other traveling receptacle.

A further object is to provide improved means for connecting the braces with two-part ribs, whereby the position of the braces controls the locking and unlocking of the pivotal connection between the rib sections.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a fragmentary view partly in elevation and partly in section illustrating our improvements. Fig. 2, is a similar view showing the parts reversed, and in position for folding or collapsing. Fig. 3, is an enlarged top plan view of the pivoted portion of the ribs and the parts adjacent thereto. Fig. 4, is a view in section on the line 4—4 of Fig. 3, and Fig. 5, is a view in section on the line 5—5 of Fig. 4.

1, represents the tubular rod of the umbrella which is made in two sections, one section having a screw-threaded lug 2 to screw into the other when the umbrella is in use, and to be disconnected when the umbrella is folded. On rod 1, a fixed collar 3 is secured, and to this collar 3, the umbrella ribs 4 are pivotally connected as shown at 5. Each rib 4 comprises an inner and an outer section which are pivotally connected by a link 6. This link 6 is normally confined within a sleeve 7 having perforated ears 8 in which the braces 9 are pivotally connected by means of a rivet 10. The inner ends of these braces 9 are pivotally connected to a sliding sleeve 11, which is adapted to be held in its upper position by means of a catch 12, and in its lower position by means of a catch 13. The catch 12 is provided with a lug 14, to project through the opening 15 in sliding

sleeve 11, so as to limit the upward movement of this sleeve 11 until it is desired to collapse the umbrella, when it is necessary to depress the catch 12, and slide sleeve 11 toward fixed collar 3, as clearly shown in Fig. 2.

To prevent the sleeve 7 from moving over the pivotal connection between the rib sections, a holding member 16 is secured on the inner rib section, and is provided with spring jaws 17 at opposite sides of the rib, which are in position to be engaged by the end of sleeve 7, and hold the sleeve against further movement. The spring jaws 17 extend downwardly, and are curved as shown at 18, so that when sleeve 11 is slid upward against fixed collar 3, braces 9 not only serve to pull the sleeve 7 toward collar 3, but they also move between the jaws 17, and spread said jaws to permit this movement, and it is only when sleeve 7 is permitted to move between the jaws that the outer sections of the ribs will fall downwardly, as shown in Fig. 2. This outer section of the rib may then be folded against the inner section of the rib, and both against rod 1, so that the umbrella is folded into small compass.

In illustrating our improvements, we have shown but a single rib, and its cooperating parts, but it is to be understood each rib of the umbrella will be alike, and the umbrella cover (not shown) will be fastened to the ribs as is ordinarily done.

Various slight changes might be made in the general form and arrangement of parts described without departing from our invention, and hence we do not limit ourselves to the precise details set forth, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In an umbrella, the combination with a rod, a fixed collar on the rod, a sliding sleeve on the rod, a rib pivotally connected to the fixed collar and comprising two sections pivotally connected, a sleeve normally covering the pivotal connection between the rib sections and holding the rib sections in alinement, a brace connecting said last-mentioned sleeve with the sliding sleeve, means on the inner rib section limiting the longitudinal movement of the rib sleeve to

uncover the pivotal connection between the rib sections, and said limiting means operated by the brace when the latter is moved to an unusual position to permit this movement of the rib sleeve, and allow the outer rib section to pivot on the inner rib section, substantially as described.

2. In an umbrella, the combination with a rod, a fixed collar on the rod, a sliding sleeve on the rod, a rib pivotally connected to the fixed collar and comprising two sections pivotally connected, a sleeve normally covering the pivotal connection between the rib sections and holding the rib sections in alinement, a brace connecting said last-mentioned sleeve with the sliding sleeve, means on the inner rib section limiting the longitudinal movement of the rib sleeve to uncover the pivotal connection between the rib sections, and said limiting means operated by the brace when the latter is moved to an unusual position to permit this movement of the rib sleeves, and allow the outer rib section to pivot on the inner rib section, said means comprising a sleeve fixed to the rib section, and spring jaws positioned to be engaged by the rib sleeve and spread apart by the brace to permit the releasing movement of the rib sleeve, substantially as described.

3. In an umbrella, the combination with a rod, a fixed collar on the rod, a sliding

sleeve on the rod, a rib pivotally connected to the fixed collar and comprising two sections pivotally connected, a sleeve normally covering the pivotal connection between the rib sections and holding the rib sections in alinement, a brace connecting said last-mentioned sleeve with the sliding sleeve, means on one rib section limiting the longitudinal movement of the rib sleeve to uncover the pivotal connection between the rib sections, and said limiting means operated by the brace to permit the movement of said rib sleeve to uncover the pivotal connection between the rib sections when said sliding sleeve is moved beyond its normal raised position, said rib sleeve limiting means comprising a metal sleeve fixed to the inner rib section, spring jaws at one end of said last-mentioned sleeve in position to limit the movement of the first-mentioned rib sleeve, and said jaws curved to receive the brace and spread apart thereby, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN J. McCREADY.
SAMUEL ROTHAMEL.

Witnesses:

CHARLES E. POTTS,
R. H. KRENKEL.