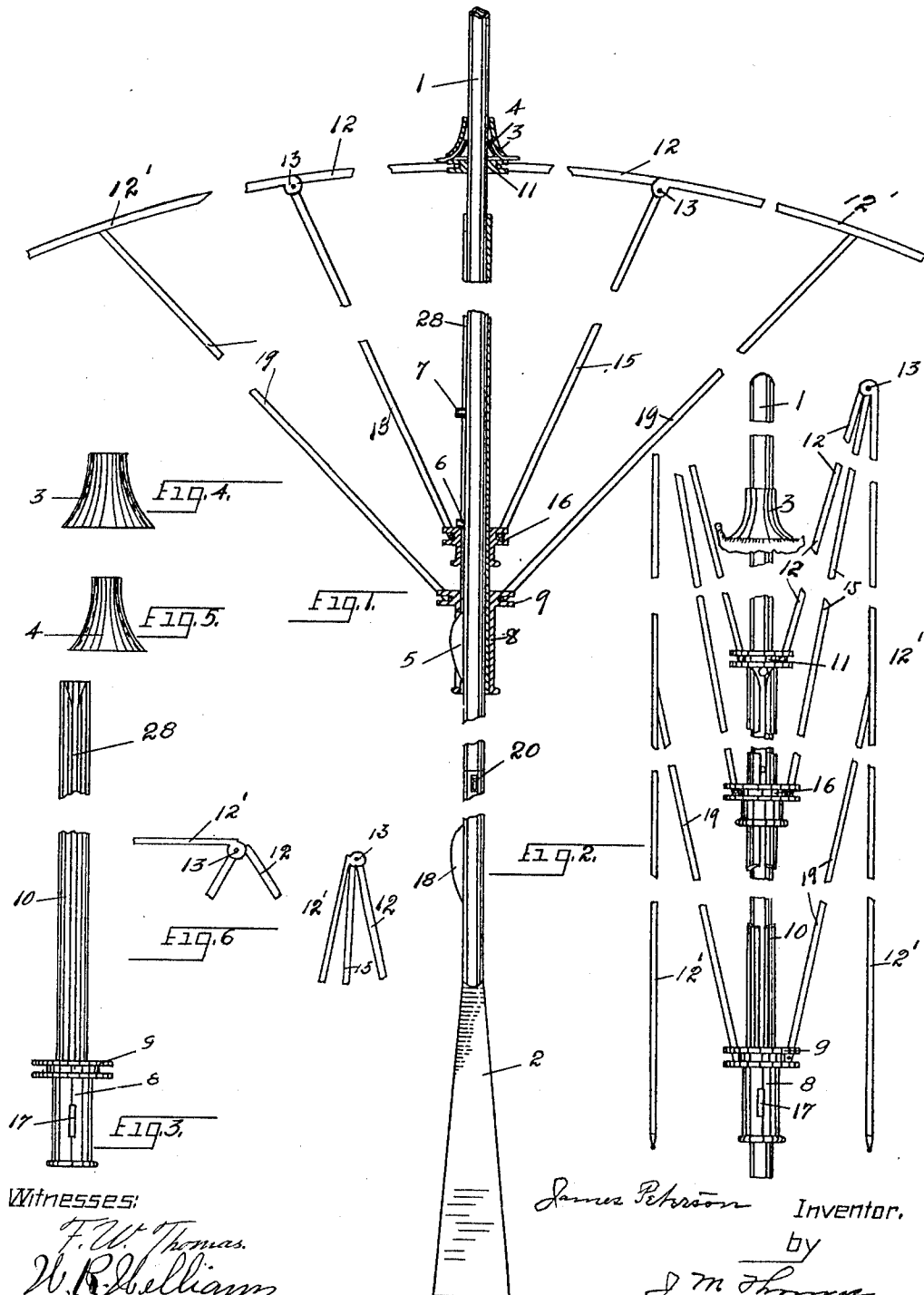


J. PETERSON.
FOLDING UMBRELLA.
APPLICATION FILED MAY 15, 1912.

1,107,835.

Patented Aug. 18, 1914.

2 SHEETS-SHEET 1.



Witnesses:

F. W. Thomas.
W. R. Williams

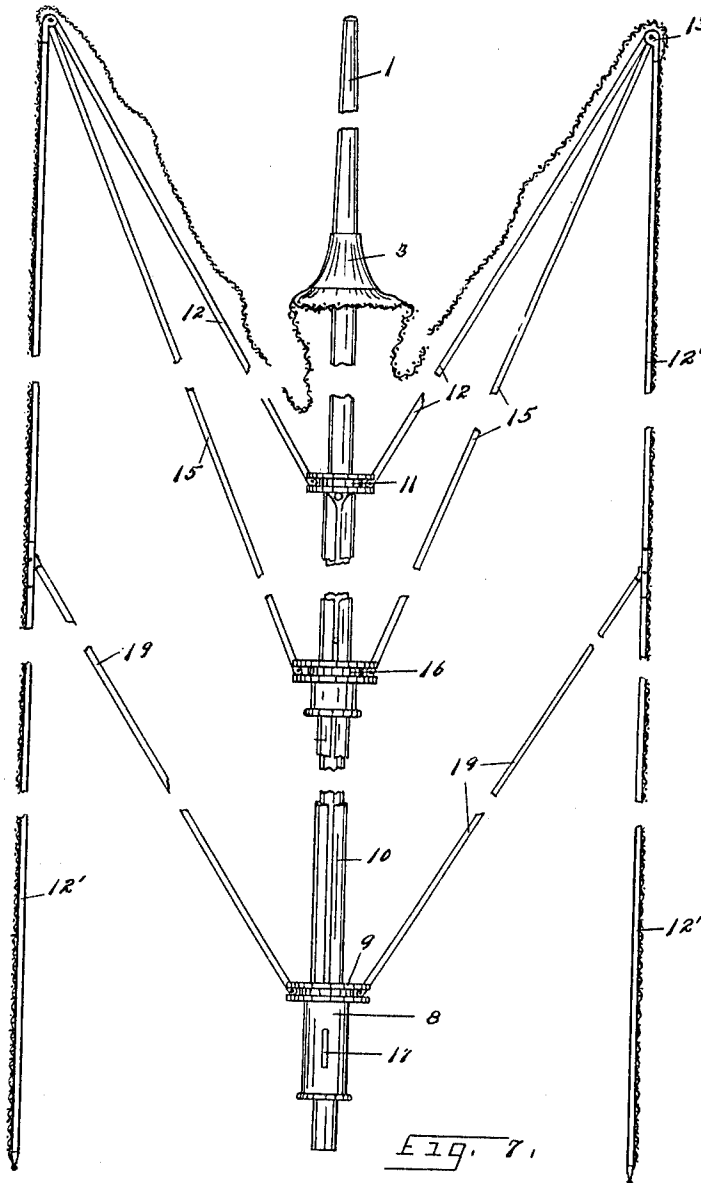
James Peterson Inventor,
by
J. M. Thomas Attorney.

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WITNESSES:

F. F. Thomas.
Sam Raney

James Peterson INVENTOR.

BY *J. M. Thomas*
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES PETERSON, OF PRICE, UTAH, ASSIGNOR TO JOHN J. OLSON, TRUSTEE, OF SALT LAKE CITY, UTAH.

FOLDING UMBRELLA.

1,107,835.

Specification of Letters Patent.

Patented Aug. 18, 1914.

Application filed May 15, 1912. Serial No. 697,584.

To all whom it may concern:

Be it known that I, JAMES PETERSON, a citizen of the United States, residing at Price, in the county of Carbon and State of Utah, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification.

My invention relates to folding umbrellas, and has for its object to provide an umbrella that is neatly and strongly built and that has the outward appearance of, and may be used as, any ordinary umbrella, and one which may be folded into compact form for storing in a suit case or other receptacle. These objects I accomplish with the device illustrated in the accompanying drawings in which similar letters of reference indicate like parts throughout the several figures and as described in the specifications forming a part of this application and as pointed out in the appended claims.

Figure 1 is a vertical section of the frame of the umbrella, parts in elevation and parts cut away. Fig. 2 is a vertical section of the same when folded, parts cut away. Fig. 3 is an elevation of the lower runner. Fig. 4 is an elevation of the upper cover-sleeve. Fig. 5 is an elevation of the lower cover-sleeve. Fig. 6 is a detail of a portion of one of the ribs and stretcher. Fig. 7 is a fragmentary view of the umbrella partially folded with parts in section.

The upper portion of the rod is shown as 1, and the lower portion with the handle thereon as 2. Said portions are detachably connected by telescoping a portion of one into the other and securing them in this position by a spring catch 20. The central portion of the covering of the umbrella is securely fastened to the upper portion of the section 1 of the rod between the two cover-sleeves, the upper one shown as 3 and the lower one as 4. A spring catch 5 is fitted within and near the lower end of said rod 1, in longitudinal alinement with the lugs 6 and 7 which are also secured in said rod 1. A lower runner 8 having notches 9 on the upper portion thereof is slidably operated on said rods 1 and 2. A set of stretchers 19 is pivoted to said lower runner 8 within said notches 9 and the outer ends of said stretchers are pivoted to the outer section of the hinged ribs. Within said runner 8 is secured a sleeve 10 having a slot 28 cut therein. Said slot 28 acts as a guide for

said sleeve 10 by sliding on the sides of said lugs 6 and 7. A notch 11 is slidably fitted on the upper portion of said rod 1. Hinged ribs 12 are pivoted at one end thereof to said notch 11. Each of said ribs consists of the inner section 12 and the outer section 12', each having an end portion laterally extended and formed into a hinge 13, to which is pivoted the outer ends of a set of stretchers 15. The lateral extensions on the ribs at the joint permit the main body portions 12 and 12' of said ribs to be folded parallel to each other with one of the said stretchers 15 therebetween. Carried on said sleeve 10 is a middle runner 16 to which the lower end of the said stretchers 15 are pivoted. Said runner 16 engages said lug 6 when the umbrella is being raised which engagement limits the upward movement of said runner 16 and its connected stretchers 15. The upper end of said sleeve 10 engages the notch 11, when said umbrella is being raised, and pushes said notch with its connected ribs 12 upward on said rod 1, thereby opening the intermediate portion of the umbrella and bringing the said section 12 of said ribs in contact with the cover of the umbrella and said notch 11 in contact therewith and bearing against the lower of said cover sleeves 4. Said sleeve 10 is preferably not of sufficient length to push said notch upward until it is in immediate contact with said cover sleeve 4, as it has been found by experiment that the elasticity of the rib material will cause said notch to engage said cover and bear against the sleeve 4, without having said sleeve 10 long enough to contact with said notch when the umbrella is fully extended. A catch opening 17 is provided in said runner 8 within which opening the said spring catch 5 engages when the umbrella is raised, and the spring catch 18 engages when the umbrella is collapsed as in any ordinary use. The umbrella may be lowered as any ordinary umbrella, by releasing the spring catch 5 from its engagement in said runner 8 and may be held in said lowered position by the said spring catch 18 engaging in the catch opening 17 of said lower runner 8. To fold the umbrella into compact form, when raised, the spring catch 5 is released from its engagement with the said runner 8, which allows a slight collapsing of the umbrella due to releasing the tension of the ribs. The notch

11 and inner ends of the ribs may then be pushed downward on said rod 1, by a slight pressure on the upper side of any of the ribs 12 near said notch. The slight collapsing of the entire frame and downward move of the notch, will again bring the notch into contact with the upper end of said sleeve 10. By pulling downward on the lower runner 8 the entire frame may then be drawn downward on the rod 1 until the notch 11 engages the said lug 7 with a portion of the cover which is held by the sleeves 3 and 4 remaining in position, and the part of the cover between the rod 1 and the hinged joint 13 of the ribs, where it is next secured to the ribs, will fold between the hinged portion of the ribs and the upper portion of the rod. The lower portion 2 of the rod may be disengaged from the upper portion 1 by releasing the catch 20 holding the two together and the umbrella will then be in the folded form. To raise the umbrella, the portion 2 of the handle is inserted within the portion 1 of the rod and said catch 20 made to engage; the umbrella is then raised as when not folded. The raising of the umbrella is the same whether in the folded form or in the ordinary form. By the engagement of said lugs 6 and 7 with the runner 16 and notch 11 when the umbrella is folded, the rod is held against longitudinal play within the runners. Said lugs 6 and 7 also hold the rod from axial rotation within the frame of the umbrella.

Having thus described my invention I desire to secure by Letters Patent and claim:

1. A folding umbrella consisting of a rod; two aligned radially extended lugs thereon; a cover having the central portion fastened to said rod; a notch free of said cover and longitudinally movable on said rod between said cover and the upper one of said lugs; hinged ribs having one end of each pivoted to said notch and free of said cover from the hinge inward; a sleeve slidable on said rod and adapted to engage said notch when the umbrella is being raised, and provided with an open longitudinal slot within which said lugs are guided; a runner fastened on the lower end of said sleeve; another runner slidable on said sleeve and limited in said movement by said first mentioned runner and the lower of said radial lugs; a set of stretchers pivoted between said first mentioned runner and the outer section of said ribs; and another set of stretchers pivoted to said last mentioned runner and to the hinge in said ribs without the longitudinal plane of the ribs.

2. A folding umbrella consisting of a rod having the usual spring catches therein to hold said umbrella when raised and lowered; two radially extended lugs on said rod, the upper one at practically one-quarter of the length of the rod from the upper end and the

other near the upper spring catch; a cover with the central portion held securely on said rod by two cover sleeves; a notch adapted to slide on said rod free of said cover; hinged ribs pivoted thereto and with the portions from the hinge outward secured to said cover; a cylindrical sleeve slidable on said rod and provided with a longitudinal slot and a catch opening therein, and adapted to contact with said notch when said umbrella is being extended; a runner on said last mentioned sleeve; stretchers pivoted to said runner and to the outer section of said ribs; another runner slidably carried on said cylindrical sleeve and limited in its upward movement thereon by the lower one of said lugs; and a set of stretchers pivotally engaging said runner and the hinge in said ribs.

3. A folding umbrella consisting of a rod; two radially extended lugs and two spring catches fastened in said rod in longitudinal alinement with each other; a cover having its central portion secured on said rod; a notch slidably carried on said rod and limited in its movements thereon by the fastening means of said cover and the upper one of said lugs; severed and hinged connected ribs pivoted to said notch at the inner ends; a hinge in each of said ribs without the plane thereof; a cylindrically shaped sleeve slidable on said rod and provided with a longitudinal slot therein and adapted to engage said notch to slide the same on said rod in an upward direction; a runner secured on the lower end of said sleeve and provided with an opening through both said sleeve and runner to engage one of said spring catches when adjacent thereto; stretchers pivoted to said runner and to the outer end portion of said ribs; another runner slidable on said sleeve and limited in its upward movement thereon by the lower one of said lugs; and a set of stretchers pivoted to said runner and to the hinge in said ribs.

4. A folding umbrella consisting of a rod; an extending lug thereon; a cover having the central portion fastened to said rod; a notch free of said cover and longitudinally movable on said rod between said cover and said lug; hinged ribs having one end of each pivoted to said notch and free of said cover from the hinge inward; a sleeve slidable on said rod and adapted to engage said notch when the umbrella is being raised; a runner fastened on the lower end of said sleeve; another runner slidable on said sleeve and limited in its movement in one direction by the said lug; a set of stretchers pivoted to said first mentioned runner and to the outer section of said ribs; and another set of stretchers pivoted to said last mentioned runner and to the hinge in said ribs.

5. A folding umbrella consisting of a rod; an extending lug thereon; a cover having the central portion fastened to said rod; a

notch free of said cover and longitudinally
movable on said rod between said cover and
said lug; hinged ribs having one end of each
pivoted to said notch and free of said cover
5 from the hinge inward; a sleeve slidable on
said rod and adapted to engage said notch
when the umbrella is being raised and pro-
vided with an open longitudinal slot to pass
said lug and to be guided thereby; a runner
10 fastened on the lower portion of said sleeve;
another runner slidable on said sleeve and
limited in its movement in one direction by

said first mentioned runner and in the other
direction by said lug; a set of stretchers piv-
oted to said first mentioned runner and to 15
the outer section of said ribs; and another
set of stretchers pivoted between said last
mentioned runner and the hinge in said ribs.

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

JAMES PETERSON.

Witnesses:

BEN L. CORUM,

J. J. CORUM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."