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PATENTED JULY 7, 1908.

H. G. WALTERS.

UMBRELLA, PARASOL, AND THE LIKE.

APPLICATION FILED DEC. 30, 1907.

3 SHEETS—SHEET 1.

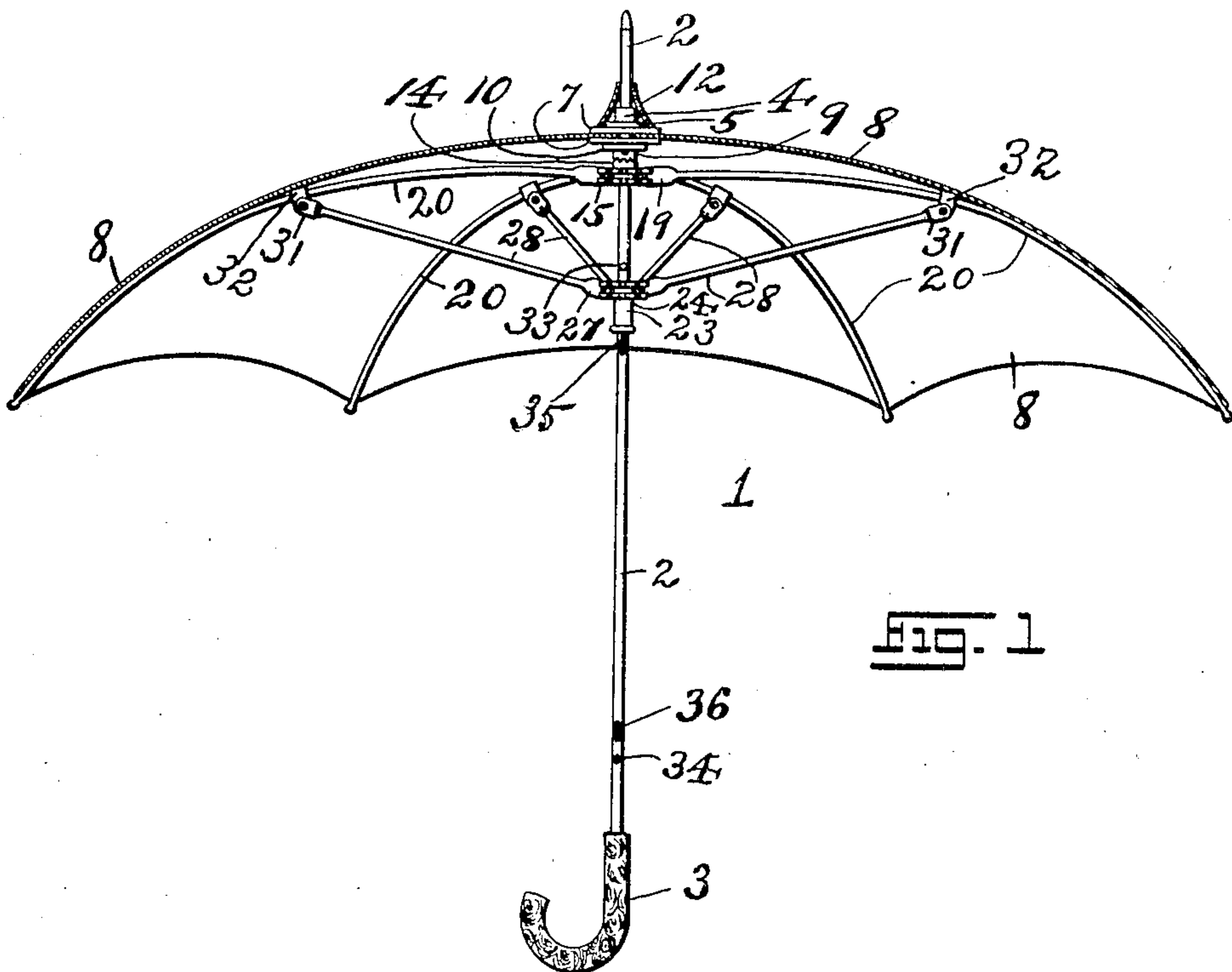
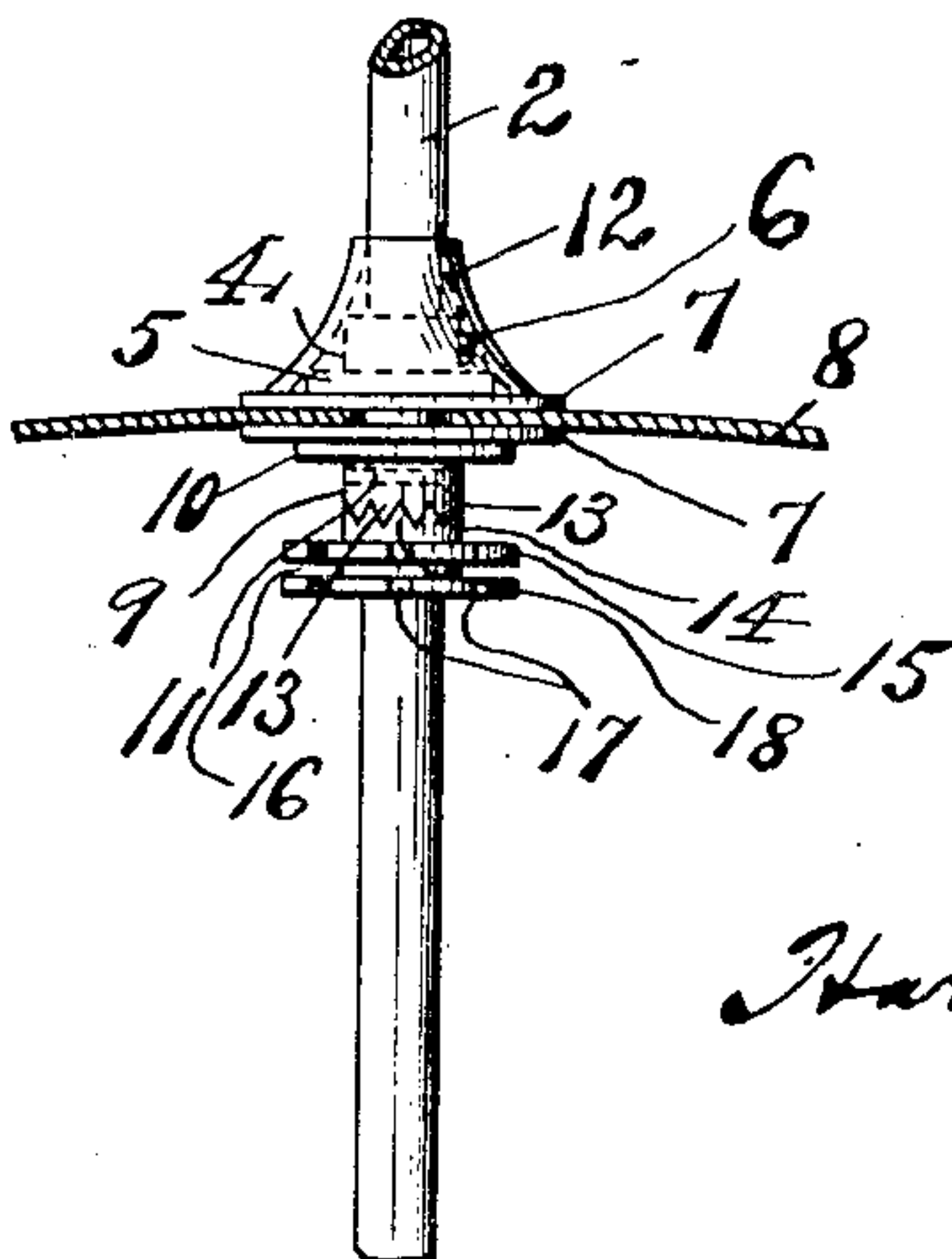


Fig. 4



WITNESSES:

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INVENTOR

Harry G. Walters

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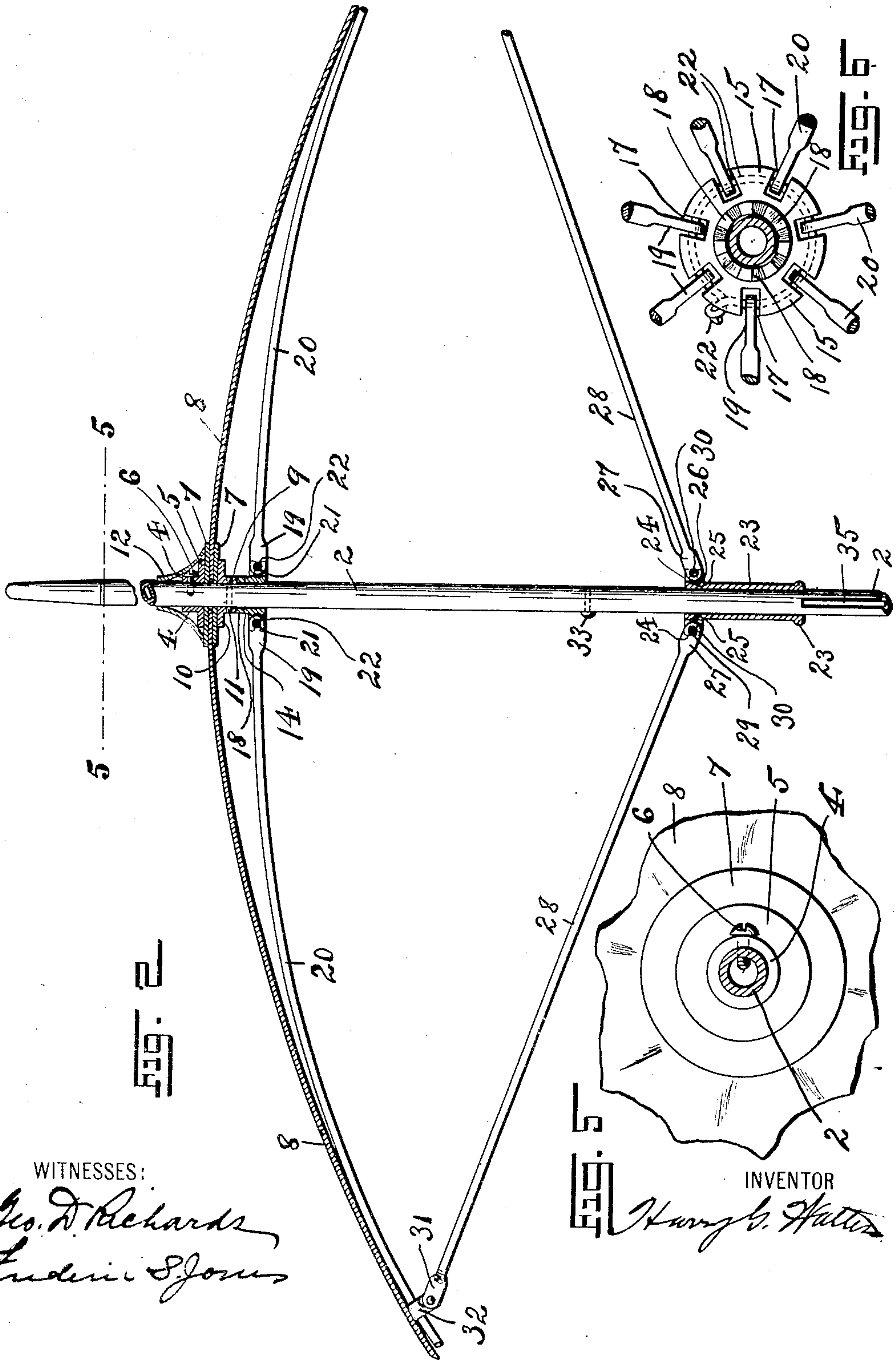
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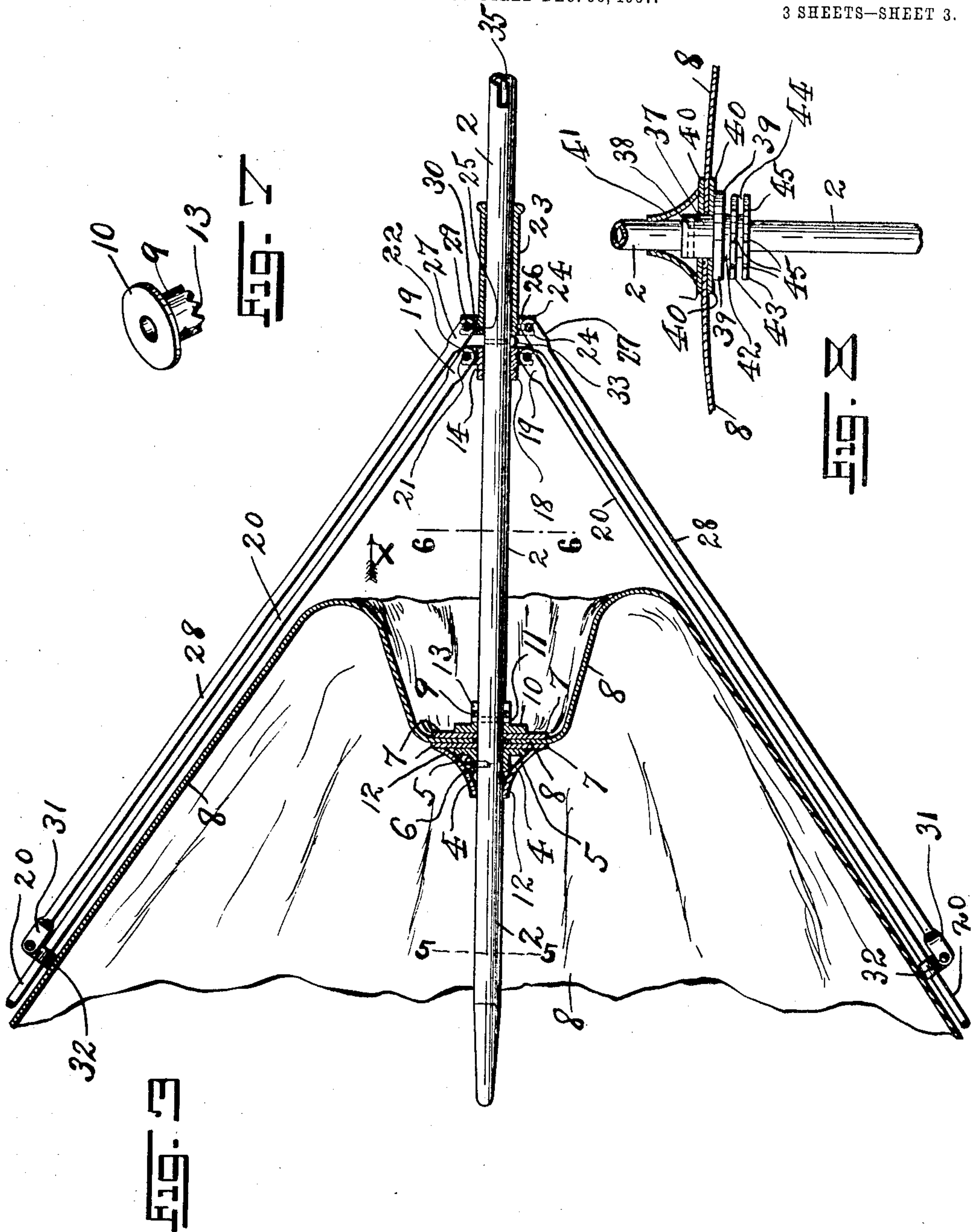
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3 SHEETS—SHEET 3.



WITNESSES:

Geo. D. Richards
Frederic Jones

INVENTOR

Harry G. Walters

UNITED STATES PATENT OFFICE.

HARRY G. WALTERS, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-FOURTH TO GEORGE D. RICHARDS, OF EAST ORANGE, NEW JERSEY.

UMBRELLA, PARASOL, AND THE LIKE.

No. 892,473.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed December 30, 1907. Serial No. 408,645.

To all whom it may concern:

Be it known that I, HARRY G. WALTERS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Umbrellas, Parasols, and the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The present invention has reference, generally, to improvements in umbrellas, parasols and the like; and, the present invention relates, more particularly, to a novel construction of umbrella frame which when accidentally blown or turned inside-out collapses in such a manner as to relieve all strain upon the ribs, stays and joints of the umbrella frame, so that the same are in no wise injured, and may be readily and easily returned to their normal position.

In all umbrella frames, as heretofore constructed, the strain brought to bear upon the ribs, stays and joints, when the umbrella was accidentally blown or turned inside-out, has been so great, as to in the majority of cases, bend the ribs or stays out of shape or break the joints of the umbrella frame, making it necessary to have the same repaired. In a great many cases where this occurred, the umbrella was made practically useless and only fit to be thrown away.

The present invention, therefore, has for its principal object, to provide a simply constructed and effectively operating umbrella frame, the parts of which are of simple and durable construction and so assembled as to retain the same general appearance as the ordinary and well known umbrella, when the same is opened or closed, but at the same time to provide a construction of umbrella frame in which an entirely new principle is utilized and embodied in the construction hereinafter to be described; this said construction causing the strain and tension to which the ribs, stays and joints of the umbrella frame are subjected, should the umbrella be accidentally blown or turned inside-out, to be immediately relieved.

A further object of this invention is to provide, in connection with an umbrella rod, a sliding rib fulcrum, to which the ribs are pivotally connected, stays, the ends of which are pivotally connected with the said ribs and to the runner in the ordinary manner. All these parts being so arranged and constructed as to cause the umbrella frame to collapse in case the umbrella is accidentally blown or turned inside-out.

A still further object of this invention is to provide a simple means for rigidly holding the umbrella frame in its relation to the umbrella rod, so that the same will not twist or turn upon the said rod and thereby prevent or cause any undue strain or wear upon the umbrella cover, or other parts.

Another object of this invention is to provide a simple and effective means for securing the umbrella cover to the umbrella rod and frame.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of the same.

With the various objects of the present invention in view, the invention consists primarily, in the novel construction of umbrella frame hereinafter set forth; and, furthermore, this invention consists in the various novel arrangements and combinations of the devices and parts, more fully described in the following specification and then finally embodied in the clauses of the claims which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal vertical section of an umbrella in its open position the same being provided with an umbrella frame embodying the principles of the present invention; Fig. 2 is a detail longitudinal vertical section of a portion of the umbrella rod and frame in its normal position when open, the same embodying the principles of the present invention; Fig. 3 is a view similar to that shown in Fig. 2 but the umbrella frame being shown collapsed, after the umbrella has been accidentally blown or turned inside-out; Fig. 4 is a detail view of a portion of the umbrella rod provided with a novel means for retaining the umbrella cover in place upon the said rod; a

sliding rib fulcrum and the means for preventing the same from turning or twisting upon the rod; the cover being shown in section; Fig. 5 is a detail cross section taken on line 5—5 in said Fig. 3, looking downwardly, the shedder cap being removed. Fig. 6 is a detailed cross section taken on line 6—6 in Fig. 3, looking in the direction of the arrow X, this view illustrating the sliding rib fulcrum and a portion of the means connected therewith for preventing the turning or twisting of the same upon the umbrella rod. Fig. 7 is a perspective view of a portion of the means used to retain the umbrella cover in place and also to prevent the turning or twisting of the sliding rib fulcrum upon the umbrella rod. Fig. 8 is a detail view illustrating a slightly modified form of the means for securing the umbrella cover to the umbrella rod, and also a slightly modified form of sliding rib fulcrum.

Similar characters of reference are employed in all of the said above described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates a complete umbrella embodying the principles of the present invention, and the same comprises an umbrella rod 2 of any desirable form, either tubular or solid, a handle 3 secured to the lower end of said umbrella rod 2. A collar 4 provided upon its lower edge with an annular flange 5, this said collar 4 being rigidly secured to the said umbrella rod 2 by means of the screw 6, or any other desirable means. A pair of washers 7, of leather or any other resilient material, arranged beneath the flange 5 of the said collar 4, a cover 8, of any desirable material, arranged between said pair of washers 7, and a collar 9 provided upon its upper edge with an annular flange 10, said collar 9 being adapted to be brought in contact with said leather washers 7 and the cover 8 to securely hold the said cover in place. This said collar 9 is rigidly secured upon the umbrella rod 2 by means of a pin 11, or any other desirable means. A cone-shaped cap 12 is arranged upon the umbrella rod 2 above the collar 4, and is preferably constructed so as to cover or fit over the same. The said collar 9 is provided at its lower edge with a plurality of teeth or serrations 13. Slidably arranged upon the umbrella rod 2 is a sliding rib fulcrum comprising a tubular member 14 provided with a pair of flanges 15, the said flanges being so arranged as to provide the usual intervening space 16, slots or cut-away portions 17 are arranged in said flanges the upper edge of said tubular member 14 is provided with a plurality of teeth or serrations 18, adapted to normally engage with the teeth or serrations 13 of the collar 9, above described, to prevent the said sliding rib fulcrum from turning or twisting upon the umbrella rod 2

when in its normal position abutting the said collar 9. Arranged in the slots or cut-away portions 17 of the flanges 15 are the fulcrum ends 19 of a plurality of umbrella ribs 20. The said fulcrum ends 19 being provided with holes or openings 21, through which are threaded the retaining-wire 22, which is arranged in the intervening space 16 between the said flanges 15, in the usual and ordinary manner. Slidably arranged upon the umbrella rod 2, in the usual and well known manner, is a runner, comprising a tubular member 23 provided on its upper edge with a pair of flanges 24, and an intervening space 25 between said flanges 24, and slots or cut-away portions 26 in said flanges 24. Arranged in said slots or cut-away portions 26 are the ends 27 of a plurality of stays 28, the said ends 27 being provided with holes or openings 29 through which are threaded the retaining wire 30, which is arranged in the intervening space 25, in the ordinary and well known manner. The opposite ends of said stays 28 are provided with forked-members 31, adapted to be pivotally connected to a link member 32 rigidly secured to the said umbrella ribs 20, in any ordinary and well known manner.

Secured to the umbrella rod 2, in any suitable manner, is a stop pin 33, the same being arranged in a proper location between the said sliding rib fulcrum and the runner above described. In like manner the umbrella rod 2, near its lower end, has a similar stop pin 34, adapted to limit the downward movement of the said runner. The spring catches 35 and 36 are arranged upon said umbrella rod 3 in the usual and well known manner, and serve to retain the umbrella in its open or closed position as will be clearly understood from an inspection of the drawings.

Referring now more particularly to Fig. 8 of the drawings, there is illustrated therein a slightly modified form of the means for securing the umbrella cover 8 to the umbrella rod 2, and also a slightly modified form of sliding rib fulcrum. The said sliding rib fulcrum comprises a collar 37 rigidly secured to the said umbrella rod 2 by means of the pin 38, or any other suitable holding means, the said collar 37 being provided at its lower edge with an annular flange 39, a pair of washers 40, of leather or any other resilient material, and the umbrella cover 8 arranged between the said washers 40 and also being arranged above said flange 39, a cone-shaped shedder 41 is arranged upon the umbrella rod 2 above the said washers 40 and said collar 37. A sliding rib fulcrum, comprising a tubular member 42 provided with a pair of flanges 43 so arranged as to provide an intervening space or opening 44, is slidably arranged upon the umbrella rod 2. The said flanges 43 being provided with slots or cut-away portions 45. The said sliding rib ful-

crum is adapted to normally abut against the lower side or edge of the annular flange 39 of the said collar 37.

Having thus described in detail the construction and parts which comprise the umbrella frame embodying the principles of the present invention, it remains to describe the manner in which the same operates in case the umbrella is turned or accidentally blown inside-out. From an inspection of Fig. 2 of the drawings, it will be noticed that the umbrella when opened is of the same general appearance as that of the ordinary umbrella when in the same position. The tension of the ribs 20, when the umbrella is open, provide sufficient "spring" to retain the sliding rib fulcrum in its normal position, with the teeth or serrations thereof engaging with the opposed teeth or serration of the collar 9. Assuming that sufficient pressure is brought to bear upon the underside of the umbrella cover 8 to blow or turn the same inside-out, the outer or free ends of the said ribs 20 will then move upward and in so doing this tension or "spring" is released and the sliding rib fulcrum will then travel in a downward direction upon the umbrella rod 2 until brought to a stop by the stop pin 33. At the same time there is a slight lift upon the runner carrying the stays 28, so that the ribs are permitted to straighten out and all tension and strain upon the ribs, stays and joints of the umbrella frame is removed.

The above described construction while simple and effective does not in any way weaken the structure of the umbrella, so that the same will withstand the ordinary pressure of wind or other force, and will not blow or turn inside-out any easier than the old style umbrella.

I am aware that changes may be made in the various arrangements and combinations of parts as well as in the details of their construction without departing from the scope of the present invention as defined in the appended claims. Hence I do not, limit my invention to the exact arrangements and combinations of the various parts as described in the accompanying specification, nor do I limit myself to the exact details of the construction of any of the said parts.

I claim:—

1. In an umbrella, the combination with an umbrella rod, of a sliding rib fulcrum slidably arranged upon said rod, umbrella ribs pivotally connected therewith, said sliding rib fulcrum being free to slide downwardly upon the said rod when the said umbrella ribs are moved upwardly from their normal opened position, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella ribs, substantially as and for the purposes set forth.

2. In an umbrella, the combination with

an umbrella rod and the cover, means for securing said cover to the said umbrella rod, a sliding rib fulcrum slidably arranged upon the said umbrella rod, umbrella ribs pivotally connected with said sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said rod when the said umbrella ribs are moved upwardly from their normal opened position, a runner slidably arranged upon said umbrella rod, and stays pivotally connected with said runner and said umbrella rib, substantially as and for the purposes set forth.

3. In an umbrella, the combination with an umbrella rod, of a sliding rib fulcrum slidably arranged upon said umbrella rod, umbrella ribs pivotally connected with said sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said rod when the said umbrella ribs are moved upwardly from their normal opened position, an umbrella cover secured to and supported by said umbrella ribs, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella ribs substantially as and for the purposes set forth.

4. In an umbrella, the combination with an umbrella rod, of a collar provided with a plurality of teeth or serrations upon its lower edge and rigidly secured upon said umbrella rod, a sliding rib fulcrum slidably arranged upon said umbrella rod, a plurality of teeth or serrations upon the upper edge of said sliding rib fulcrum, said teeth or serrations being adapted to normally engage with the teeth or serrations of the said collar, umbrella ribs pivotally connected with the said sliding rib fulcrum, an umbrella cover secured to and supported by said ribs, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella ribs, substantially as and for the purpose set forth.

5. In an umbrella, the combination with an umbrella rod, of a collar provided with a plurality of teeth or serrations upon its lower edge and rigidly secured upon said umbrella rod, a sliding rib fulcrum slidably arranged upon the said umbrella rod, a plurality of teeth or serrations arranged upon the upper edge of said sliding rib fulcrum, adapted to normally engage with the teeth or serrations of the said collar, umbrella ribs pivotally connected with said sliding rib fulcrum, an umbrella cover secured to and supported by said umbrella ribs, and means for securing said cover to the umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and with said umbrella ribs, substantially as and for the purposes set forth.

6. In an umbrella, the combination with an umbrella rod, of a collar provided with a plurality of teeth or serrations upon its lower

edge and rigidly secured upon said umbrella rod, a sliding rib fulcrum slidably arranged upon the said umbrella rod, a plurality of teeth or serrations arranged upon the upper
 5 edge of said sliding rib fulcrum, adapted to normally engage with the teeth or serrations of the said collar, umbrella ribs pivotally connected with said sliding rib fulcrum, an umbrella cover secured to and supported by said
 10 umbrella ribs, and means for securing said cover to the umbrella rod, comprising an annular flange upon said collar, resilient washers arranged beneath and above the said umbrella cover, a collar provided with an
 15 annular flange arranged upon the umbrella rod, above the said washers, and means for rigidly securing said collar to the umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with
 20 said runner and said umbrella ribs, substantially as and for the purposes set forth.

7. In an umbrella, the combination with an umbrella rod, of a sliding rib fulcrum slidably arranged upon said umbrella rod, umbrella ribs pivotally connected with said sliding
 25 rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said rod when the said umbrella ribs are moved upwardly from their normal opened position, a runner slidably arranged upon said umbrella rod, stays pivotally connected with
 30 said runner and the said umbrella ribs and means for preventing the said sliding rib fulcrum from turning or twisting upon the umbrella rod, substantially as and for the purposes set forth.

8. In an umbrella, the combination with an umbrella rod, of a sliding rib fulcrum slidably arranged upon said rod, umbrella ribs
 40 pivotally connected with said sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said rod when the said umbrella ribs are moved upwardly from their normal opened position, a cover
 45 arranged upon and supported by said umbrella ribs, means for securing said cover to said umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella
 50 ribs, and means for preventing the said sliding rib fulcrum from twisting or turning upon the said umbrella rod, substantially as and for the purposes set forth.

9. In an umbrella, the combination with
 55 an umbrella rod, of a sliding rib fulcrum slidably arranged upon the said umbrella rod, umbrella ribs pivotally connected with said sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the
 60 said rod when the said umbrella ribs are moved upwardly from their normal opened position, a stop pin connected with said umbrella rod and adapted to limit the downward movement of said sliding rib fulcrum, a
 65 runner slidably arranged upon said umbrella

rod, stays pivotally connected with said runner and said umbrella ribs substantially as and for the purposes set forth.

10. In an umbrella, the combination with an umbrella rod, of a sliding rib fulcrum, umbrella ribs pivotally connected with said
 70 sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said umbrella rod when the ribs are moved upwardly from their normal opened position, a
 75 stop pin connected with said umbrella rod and adapted to limit the downward movement of said sliding rib fulcrum, a cover supported by and arranged upon said umbrella ribs, means for securing said cover
 80 to the umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella rib, substantially as and for the purposes set forth.

11. In an umbrella, the combination with an umbrella rod of a sliding rib fulcrum, umbrella ribs pivotally connected with said
 85 sliding rib fulcrum, said sliding rib fulcrum being free to slide downwardly upon the said umbrella rod when the ribs are moved upwardly from their normal opened position, a stop pin connected with said umbrella rod and adapted to limit the downward movement of said sliding rib fulcrum, a cover
 90 supported by and arranged upon said umbrella ribs, means for securing said cover to the umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella
 95 ribs, and means for preventing the twisting or turning of the said sliding rib fulcrum upon the said umbrella rod, substantially as and for the purposes set forth.

12. In an umbrella, the combination with
 105 an umbrella rod of a sliding rib fulcrum, umbrella ribs pivotally connected with said sliding rib fulcrum, said sliding rib fulcrum being free to move downwardly upon the said umbrella rod when the ribs are moved
 110 upwardly from their normal opened position, a stop pin connected with said umbrella rod and adapted to limit the downward movement of the said sliding rib fulcrum, a cover supported by and arranged upon said umbrella
 115 ribs, means for securing said cover to the umbrella rod, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella ribs, and means for preventing the twisting
 120 or turning of the said sliding rib fulcrum upon the said umbrella rod, a cone-shaped shedder arranged upon said umbrella rod above the said cover, substantially as and for the purposes set forth.

13. In an umbrella, the combination with
 125 an umbrella rod, of a pair of collars rigidly secured to said umbrella rod, said collars being provided with annular flanges at their opposing ends, a pair of resilient washers ar- 130

ranged upon said umbrella rod between the
 said flanges, an umbrella cover held between
 said resilient washers to secure the same to
 the umbrella rod, a shedder arranged upon
 5 said rod above the said collars and washers,
 a sliding rib fulcrum slidably arranged upon
 said umbrella rod adapted to normally abut
 against the lower collar, a stop pin connected
 with said umbrella rod adapted to limit the
 10 downward movement of said sliding rib ful-
 crum, umbrella ribs pivotally connected with
 said sliding rib fulcrum, said umbrella ribs
 adapted to be secured to and support the
 said umbrella cover a runner slidably ar-
 15 ranged upon said umbrella rod, stays piv-
 otally connected with said runner and said
 umbrella ribs, substantially as and for the
 purposes set forth.

14. In an umbrella, the combination with
 20 an umbrella rod, of a pair of collars rigidly
 secured to said umbrella rod, said collars be-
 ing provided with annular flanges at their
 opposing ends, a pair of resilient washers
 arranged upon said umbrella rod between
 25 the said flanges, an umbrella cover held be-
 tween said resilient washers to secure the
 same to the umbrella rod, a shedder arranged
 upon said rod above the said collars and said
 washers, a sliding rib fulcrum slidably ar-
 30 ranged upon said umbrella rod adapted to
 normally abut against the lower collar, a
 stop pin connected with said umbrella rod
 adapted to limit the downward movement of
 said sliding rib fulcrum, umbrella ribs piv-
 35 otally connected with said sliding rib ful-
 crum, said umbrella ribs adapted to be se-
 cured to and support the said umbrella cover,
 a runner slidably arranged upon said um-
 brella rod, stays pivotally connected with
 40 said runner and said umbrella ribs, and
 means for preventing the said sliding rib ful-
 crum from turning or twisting upon the said
 umbrella rod, substantially as and for the
 purposes set forth.

15. In an umbrella, the combination with
 45 an umbrella rod, of a pair of collars rigidly
 secured to said umbrella rod said collars be-
 ing provided with annular flanges at their
 opposing ends, a pair of resilient washers ar-
 50 ranged upon said umbrella rod between the
 said flanges, an umbrella cover held between
 said resilient washers to secure the same to
 the umbrella rod, a shedder arranged upon
 said rod above the said collars and washers,
 55 a sliding rib fulcrum slidably arranged upon
 said umbrella rod adapted to normally abut
 against the lower collar, a stop pin connected
 with said umbrella rod adapted to limit the
 downward movement of said sliding rib ful-
 60 crum, umbrella ribs pivotally connected
 with said sliding rib fulcrum, said umbrella
 ribs adapted to be secured to and support
 the said umbrella cover, a runner slidably
 arranged upon said umbrella rod, stays pivot-
 65 ally connected with said runner and said

umbrella ribs, and means connected with
 said sliding rib fulcrum and said lower collar
 for preventing the said sliding rib fulcrum
 from turning or twisting upon the said um-
 brella rod, substantially as and for the pur- 70
 poses set forth.

16. In an umbrella, the combination with
 an umbrella rod, of a pair of collars rigidly
 secured to said umbrella rod, said collars be-
 ing provided with annular flanges at their 75
 opposing ends, a pair of resilient washers ar-
 ranged upon said umbrella rod between the
 said flanges, an umbrella cover held between
 said resilient washers to secure the same to
 the umbrella rod, a shedder arranged upon 80
 said rod above the said collars and washers, a
 sliding rib fulcrum slidably arranged upon
 said umbrella rod adapted to normally abut
 against the lower collar, a stop pin connected
 with said umbrella rod to limit the down- 85
 ward movement of said sliding rib fulcrum,
 umbrella ribs pivotally connected with said
 sliding rib fulcrum, said umbrella ribs adapt-
 ed to be secured to and support the said um-
 brella cover, a runner slidably arranged upon 90
 said umbrella rod, stays pivotally connected
 with said runner and said umbrella ribs, and
 means connected with said sliding rib ful-
 crum and said lower collar for preventing the
 said sliding rib fulcrum from turning or 95
 twisting upon the said umbrella rod, said
 means comprising a plurality of teeth or ser-
 rations upon the lower end of said lower col-
 lar, and a plurality of teeth or serrations
 arranged upon the upper end of said sliding 100
 rib fulcrum adapted to engage with the teeth
 or serrations of the said lower collar, sub-
 stantially as and for the purposes set forth.

17. In an umbrella, the combination with
 an umbrella rod, of a pair of collars rigidly 105
 secured to said umbrella rod, said collars be-
 ing provided with annular flanges at their
 opposing ends, a pair of resilient washers ar-
 ranged upon said umbrella rod between the
 said flanges, an umbrella cover held between 110
 said resilient washers to secure the same to
 the umbrella rod, a shedder arranged upon
 said rod above the said collars and washers, a
 sliding rib fulcrum slidably arranged upon
 said umbrella rod adapted to normally abut 115
 against the lower collar, a stop pin connect-
 ed with said umbrella rod to limit the down-
 ward movement of said sliding rib fulcrum,
 umbrella ribs pivotally connected with said
 sliding rib fulcrum, said umbrella ribs adapt- 120
 ed to be secured to and support the said um-
 brella cover, a runner slidably arranged upon
 said umbrella rod, stays pivotally connected
 with said runner and said umbrella ribs, and
 means connected with said sliding rib ful- 125
 crum and said lower collar for preventing the
 said sliding rib fulcrum from turning or
 twisting upon the said umbrella rod, said
 means comprising a plurality of teeth or ser-
 rations upon the lower end of said lower collar, 130

and a plurality of teeth or serrations arranged upon the upper end of said sliding rib fulcrum adapted to engage with the teeth or serrations of the said lower collar, and a stop pin connected with said umbrella rod adapted to limit the downward movement of said runner, substantially as and for the purpose set forth.

18. In an umbrella, the combination with an umbrella rod, of a pair of collars rigidly secured to said umbrella rod, said collars being provided with annular flanges at their opposing ends, a pair of resilient washers arranged upon said umbrella rod between the said flanges, an umbrella cover held between said resilient washers to secure the same to the umbrella rod, a shedder arranged upon said rod above the said collars and washers, a sliding rib fulcrum slidably arranged upon said umbrella rod adapted to normally abut against the lower collar, a stop pin connected with said umbrella rod to limit the downward movement of said sliding rib fulcrum, umbrella ribs pivotally connected with said sliding rib fulcrum said umbrella ribs adapted to be secured to and support the said umbrella cover, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and said umbrella ribs, and means connected with said sliding rib fulcrum and said lower collar for preventing the said sliding rib fulcrum from turning or twisting upon the said umbrella rod, said means comprising a plurality of teeth or serrations upon the lower end of said lower collar and a plurality of teeth or serrations arranged upon the upper end of said sliding rib fulcrum adapted to engage with the teeth or serrations of the said lower collar, and spring catches connected with said umbrella rod adapted to retain the umbrella in its opened or closed position, substantially as and for the purposes set forth.

19. In an umbrella, the combination with an umbrella rod, of a pair of collars provided with annular flanges at their opposing ends, the upper collar being removably secured to the umbrella rod by means of a screw, or the like, the lower collar being rigidly secured to the said umbrella rod, by means of a pin, or the like, a pair of resilient washers arranged upon said umbrella rod between the flanges of said collars, an umbrella cover rigidly secured between the said resilient washers and said collars, a sliding rib fulcrum slidably arranged upon the said umbrella rod and adapted to normally abut against the lower collar, said sliding rib fulcrum comprising a tubular member provided with a pair of flanges, so arranged as to provide an intervening space, said flanges being provided with cut-away portions or slots, umbrella ribs, the fulcrum ends of which are pivotally secured in said cut-away portions or slots of the flanges by means of a retaining wire arranged in the intervening space, a stop pin

connected with said umbrella rod adapted to limit the downward movement of the said sliding rib fulcrum, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and with said umbrella ribs, a stop pin connected with said umbrella rod adapted to limit the downward movement of said runner, spring catches connected with said umbrella rod adapted to engage with the said runner to retain the umbrella in its opened or closed position, substantially as and for the purposes set forth.

20. In an umbrella, the combination with an umbrella rod, of a pair of collars provided with annular flanges at their opposing ends, the upper collar being removably secured to the umbrella rod by means of a screw, or the like, the lower collar being rigidly secured to the said umbrella rod, by means of a pin, or the like, a pair of resilient washers arranged upon said umbrella rod between the flanges of said collars, an umbrella cover rigidly secured between the said resilient washers and said collars, a sliding rib fulcrum slidably arranged upon the said umbrella rod and adapted to normally abut against the lower collar, said sliding rib fulcrum comprising a tubular member provided with a pair of flanges, so arranged as to provide an intervening space, said flanges being provided with cut-away portions or slots, umbrella ribs, the fulcrum ends of which are pivotally secured in said cut-away portions or slots of the flanges by means of a retaining wire arranged in the intervening space, a stop pin connected with said umbrella rod adapted to limit the downward movement of the said sliding rib fulcrum, a runner slidably arranged upon said umbrella rod, stays pivotally connected with said runner and with said umbrella ribs, a stop pin connected with said umbrella rod adapted to limit the downward movement of said runner, spring catches connected with said umbrella rod adapted to engage with the said runner to retain the umbrella in its opened or closed position, and means connected with said sliding rib fulcrum and said lower collar for preventing the said sliding rib fulcrum from turning or twisting upon the umbrella rod, said means comprising a plurality of teeth or serrations upon the lower end of said lower collar, and a plurality of teeth or serrations arranged upon the upper end of said sliding rib fulcrum and adapted to engage with the teeth or serrations of the said collar, substantially as and for the purposes set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY G. WALTERS.

Witnesses:

GEORGE H. WALTERS,
MABLE WALTERS.