

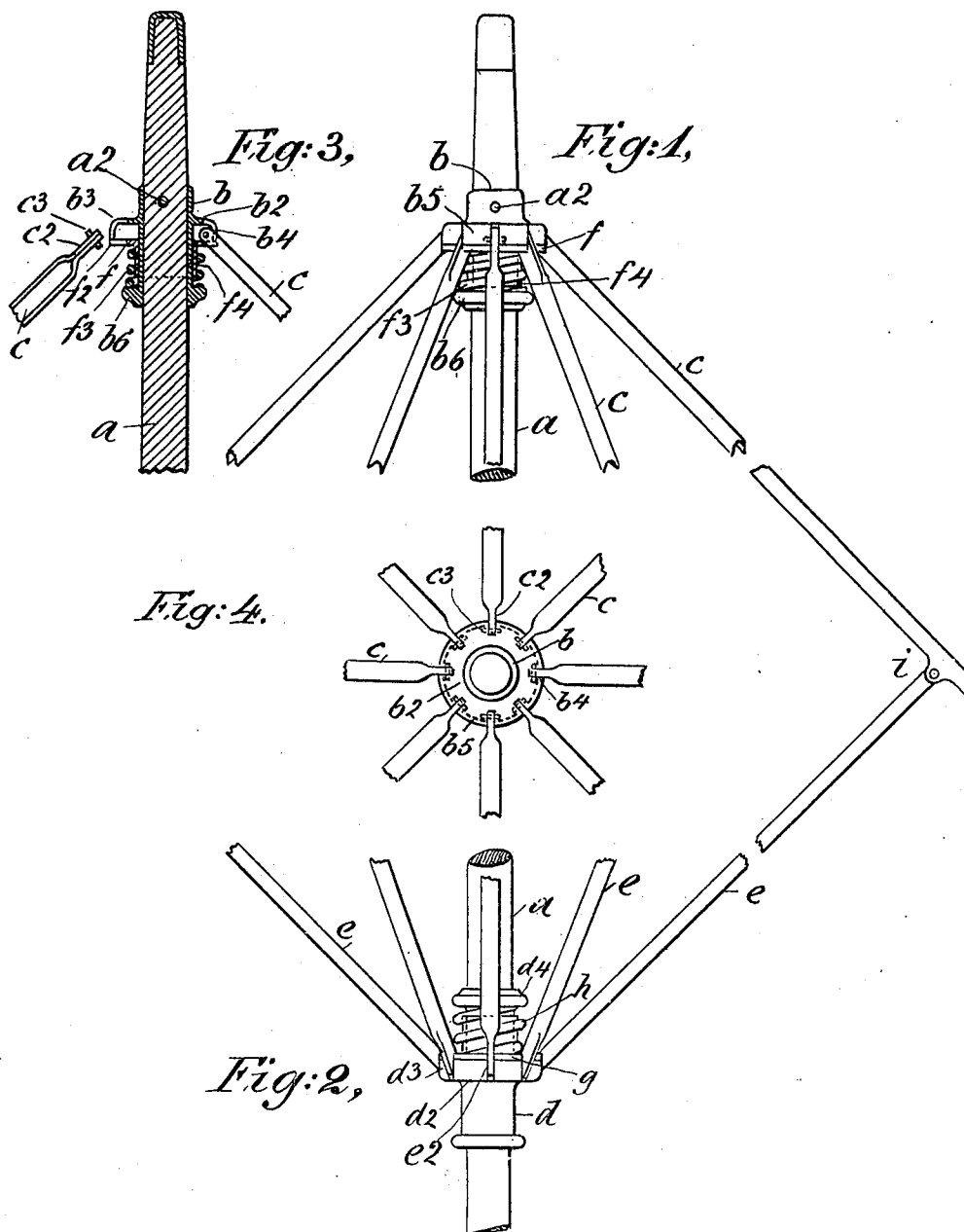
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UMBRELLA.

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WITNESSES
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UMBRELLA.

No. 830,866.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CONRAD T. VON WALLMENICH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

10 This invention relates to umbrellas, parasols, and like devices; and the object thereof is to provide improved means for connecting the ribs and braces of an umbrella or similar device with the stick, whereby the use of
15 wires for connecting the ribs and braces with the stick are avoided and the umbrella made strong and durable; and with these and other objects in view the invention consists in the construction, combination, and arrangement of the parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the
25 separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of the end portion of the stick of an umbrella with which the ribs
30 are connected; Fig. 2, a similar view of that portion of the stick of an umbrella with which the braces are connected; Fig. 3, a sectional view of the construction shown in Fig. 1, and Fig. 4 a plan view thereof.

35 In the drawings forming part of this specification I have shown at *a* an ordinary umbrella-stick, and said stick is provided with a sleeve *b*, with which the ribs *c* are connected, and with a runner *d*, with which the braces *e*
40 are connected.

The sleeve *b* is secured to the stick *a*, as shown at *a*², by means of a pin, nail, or other suitable device, and said sleeve is provided at or adjacent to the outer end thereof with an
45 annular collar *b*², having a depending flange or rim *b*³, provided with radially-arranged slots *b*⁴, which form radially-arranged jaws *b*⁵.

Mounted on the sleeve *b* is a disk or plate *f*, having radial slots *f*², and said disk or plate
50 is forced into contact with the flange or rim *b*³ of the collar *b*² by a spring *f*³, and said disk or plate is also preferably provided with a sleeve *f*⁴, movable on the sleeve *b*, and the spring *f*³ is held in place by a bead, flange, or
55 rim *b*⁶ on the inner end of the sleeve *b*. The radially-arranged slots or openings *f*² in the

disk or plate *f* register with the radial slots or openings *b*⁴ in the collar *b*² and the flange *b*³ thereof.

The ribs *c* are provided with flat ends *c*², 60 having transversely-arranged pins *c*³, which form lugs or projections on the opposite sides of the ends thereof, and in practice in securing the ribs *c* to the sleeve *b* all that is necessary is to hold said ribs in the hand and force
65 the pins *c*³ between the disk or plate *f* and the flange or rim *b*³ of the collar *b*², and when the ribs have been connected with the sleeve *b* in this manner they will work freely in the operation of opening and closing the umbrella
70 and the ribs *c* will be enabled to fold closely adjacent to the stick *a*. It will be understood that in forcing the pins *c*³ between the disk or plate *f* and the flange or rim *b*³ of the collar *b*² the said disk or plate is forced down-
75 wardly against the operation of the spring *f*³, and said spring also serves to force said disk or plate against the flange or rim *b*³ and to securely hold the ribs *c*.

The runner *d* is similar to the sleeve *b*, and 80 said runner consists of a sleeve movable on the stick *a* in the usual manner, and the sleeve which forms the runner *d* is provided with a collar *d*², having a flange or rim *d*³, adjacent to which is placed a disk or plate *g*,
85 slotted radially in the same manner as the disk or plate *f*, and the collar *d*² and the flange or rim *d*³ thereof are slotted in the same manner as the collar *b*² of the sleeve *b* and the flange or rim *b*³ thereof, and a spring
90 *h* serves to force the disk or plate *g* against the flange or rim *d*³ of the collar *d*², and the runner *d* or the sleeve of which said runner is composed is provided at its inner end with a collar, flange, or rim *d*⁴, on which the spring
95 *h* bears.

The braces *e* are connected with the ribs *c* at their outer ends in the usual manner and as shown at *i*, and at their inner ends said braces are made flat, as shown at *e*², and are
100 provided with transverse pins similar to the transverse pins *c*³ of the ribs *c*.

From the foregoing it will be seen that the flange *d*³ of the collar *d*² of the runner *d* extends inwardly, as does also the flange *b*³ of
105 the collar *b*², and the method of connecting the braces *e* with the sleeve or runner *d* is the same as that employed for connecting the ribs *c* with the sleeve *b*. The flat ends of the ribs *c* are free to swing radially in the slots *b*⁴
110 and *f*² of the collar *b*² and disk or plate *f*, and the flat inner ends of the braces *e* are also

free to swing radially in the corresponding slots formed in the collar d^2 of the sleeve or runner d and the disk or plate g . The ribs c may be detached at any time from the sleeve b by simply applying force sufficient to depress the disk or plate f , and the braces e may be detached at any time from the sleeve or runner d by applying force enough to said braces to depress the spring h ; but the force of the springs f^3 and h is sufficient at all times to hold the disks or plates f and g firmly in position, and no ordinary amount of usage will detach the ribs or braces, and by means of my improvement I avoid the use of wire for connecting the ribs and braces with their respective attachments, and the method I employ for making the connections of the ribs and braces with their respective attachments renders said connections much stronger and more durable and effective in operation than when said connections are made in the usual manner.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described means for connecting the ribs and braces of an umbrella with the stick thereof, comprising a sleeve provided near one end with an annular collar having a flange or rim at an angle thereto and at the opposite end with a stop, a plate mounted on said sleeve and adapted to bear on the flange or rim of the collar, and a spring mounted on said sleeve between the stop and said plate, the flange or rim of the collar and said plate being provided with radial slots.

2. The herein-described means for connecting the ribs and braces of an umbrella with the umbrella-stick, comprising a sleeve provided near one end with an annular collar having a flange or rim at an angle thereto and at the opposite end with a stop, a supplemental sleeve mounted on the first-named sleeve between the stop and the annular

collar and provided with a plate adapted to bear on the flange or rim of the collar, and a spiral spring mounted on the supplemental sleeve and bearing on said stop and on said plate, the flange or rim of the collar and said plate being provided with radial slots.

3. The herein-described means for connecting the ribs and braces of an umbrella with the stick thereof, comprising a sleeve provided near one end with an annular collar having a flange or rim at an angle thereto and at the opposite end with a stop, a plate mounted on said sleeve and adapted to bear on the flange or rim of the collar, and a spring mounted on said sleeve between the stop and said plate, the flange or rim of the collar and said plate being provided with radial slots, and the ribs and braces being provided with flattened ends having opposite side projections.

4. The herein-described means for connecting the ribs and braces of an umbrella with the umbrella-stick, comprising a sleeve provided near one end with an annular collar having a flange or rim at an angle thereto and at the opposite end with a stop, a supplemental sleeve mounted on the first-named collar and provided with a plate adapted to bear on the flange or rim of the collar, and a spiral spring mounted on the supplemental sleeve and bearing on said stop and on said plate, the flange or rim of the collar and said plate being provided with radial slots, and the ribs and braces being provided with flattened ends having opposite side projections.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 7th day of March, 1906.

CONRAD T. VON WALLMENICH.

Witnesses:

C. E. MULREANY,
F. A. STEWART.