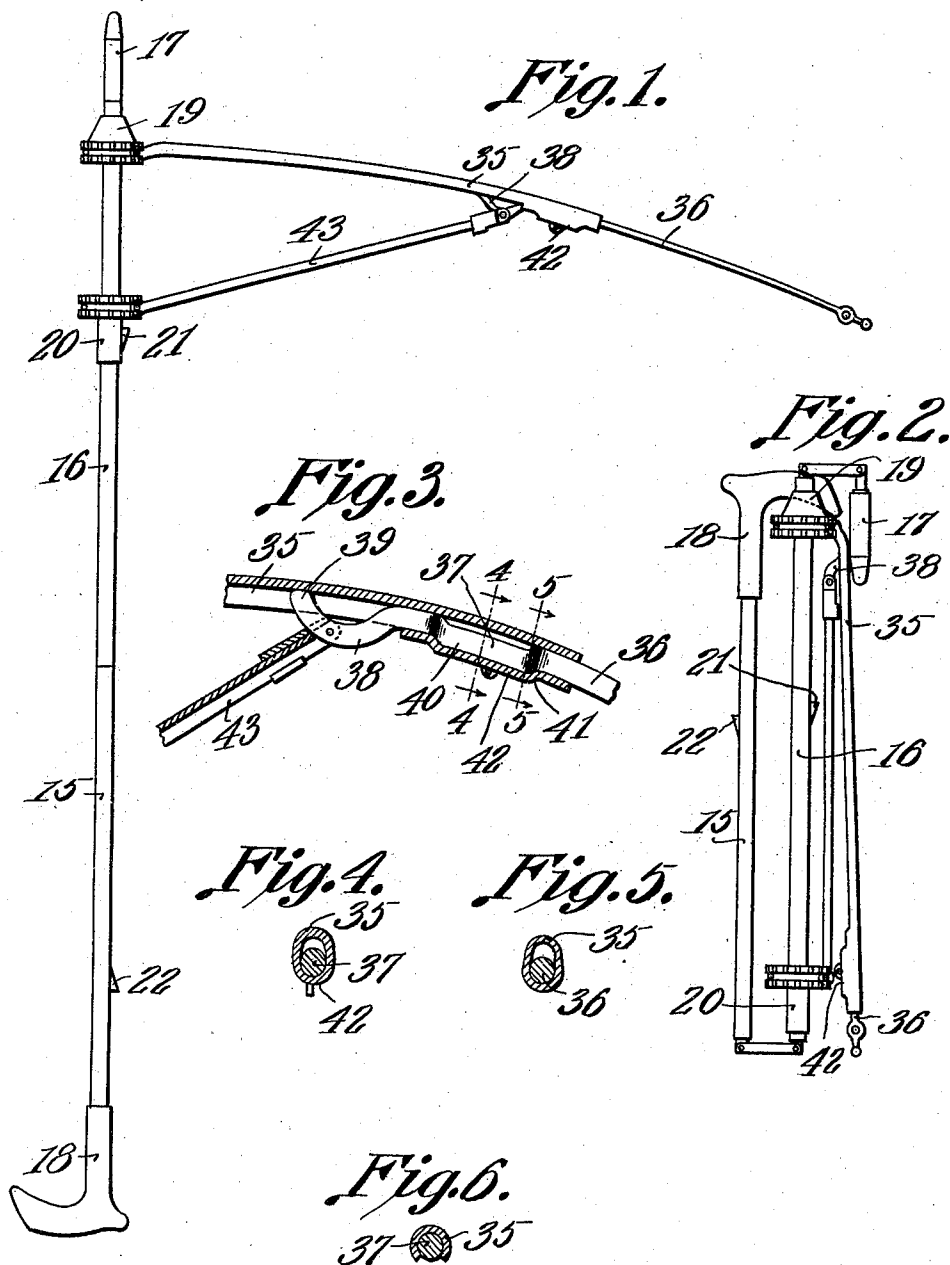


W. C. WOLFE.
FOLDING UMBRELLA.
APPLICATION FILED JULY 5, 1910.

987,208.

Patented Mar. 21, 1911.



Witnesses

J. R. Donlin
W. S. Smith

Walter C. Wolfe,

Inventor

by

C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

WALTER C. WOLFE, OF MONTROSE, COLORADO.

FOLDING UMBRELLA.

987,208.

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To all whom it may concern:

Be it known that I, WALTER C. WOLFE, a citizen of the United States, residing at Montrose, in the county of Montrose and State of Colorado, have invented a new and useful Folding Umbrella, of which the following is a specification.

It is the object of the present invention to provide an improved construction of folding umbrella and the invention aims primarily to provide an entirely practical article of this type which will be simple in construction and in no way unsightly or noticeably different from the ordinary umbrella now in general use.

Among other objects, one is to so construct the umbrella ribs that whether folded or extended, they will occupy, in the former instance, but little space and in the latter instance, but the same amount of space occupied by an ordinary umbrella rib.

With these and other objects in view, the invention consists in the general construction and arrangement of parts shown in the accompanying drawings, in which,

Figure 1 is a view in side elevation of a portion of an umbrella frame constructed in accordance with the present invention, but one of the main and stay ribs being shown however, for the sake of clearness, Fig. 2 is a view similar to Fig. 1 but illustrating the umbrella folded, Fig. 3 is a vertical sectional view through the main and stay ribs at their point of connection, one section of the main rib however being shown in elevation in this figure, Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 3, Fig. 5 is a view similar to Fig. 4 on the line 5—5 of Fig. 3. Fig. 6 is a view similar to Fig. 5 taken through the two sections of one of the main ribs of the umbrella.

In the drawings, the umbrella is illustrated as embodying a staff which in general appearance resembles the staff of an ordinary umbrella, this staff including or being made up of several sections one of these sections being indicated by the numeral 15, another by the numeral 16, and a third by the numeral 17. Of these sections, the section 15 is properly speaking the handle section inasmuch as at its lower end it is provided with a hand grip or handle 18. The section 16 is connected, in any suitable manner, at its lower end with the upper end of the section 15 and the section 17 is the ferrule section and is connected at its lower

end to the section 16. Also, the section 16 carries the usual top notch 19 to which are pivoted the main ribs of the umbrella frame in a manner to be presently explained and the runner of the umbrella, indicated by the numeral 20, is slidable not only upon the section 16 but also upon the section 15 and is held against downward sliding upon the section 16, when the umbrella is raised and in use, by the usual spring catch 21, there being provided, upon the section 15, a spring catch 22 of ordinary form for engagement with the runner 20 to prevent its slipping upon the section 15 when the umbrella is closed in the ordinary manner and is not in use.

The main ribs of the umbrella frame are composed each of two sections and of these sections one is indicated by the numeral 35 and the other by the numeral 36. The section 35 is pivoted at its inner end to the top notch 19 and is of channel formation whereas the section 36 is of resilient wire material and is slidably fitted in the channel of the section 35. The section 36, adjacent its inner end, is bent to afford an off-set indicated by the numeral 37 and at its end is bent or curved as at 38 so as to cause its extremity 39 to bear frictionally against the bottom of the channel of the section 35. This engagement of the extremity of the section 36 with the bottom wall of the channel and the engagement of the portion of the section beyond its off-set 37, with the said wall of the channel, results in that portion of the section between the bent end 38 and the off-set 37 and indicated by the numeral 40, being spaced from the wall of the channel. The section 35, at the outer end, has fixed or formed upon it a sleeve indicated by the numeral 41 and formed in its under side with a bent up seat or socket 42 designed to receive the off-set 37 of the section 36 when the two sections are in extended relation as illustrated in Fig. 1 of the drawings, it being understood that in order for the off-set to enter this seat, the portion 40 is sprung toward the bottom of the channel of the section 35 against the resiliency of this portion of the section 36 and that while the engagement of the off-set in the seat is not a positive one, it is frictional to such a degree as to preclude any possibility of the sections becoming accidentally telescoped when the umbrella is in ordinary use. The stay ribs of the umbrella are indicated by

the numeral 43, only one of such ribs being however here shown, and the rib illustrated is pivoted at its inner end to the runner 20 and at its outer end to the bends 38 in the section 36 of the main rib.

From the foregoing description of the invention, it will be readily understood that the sections 15 and 16 may be relatively folded as illustrated in Fig. 2 of the drawings and that the ferrule section 17 may be folded with respect to the section 16 also as illustrated in this figure of the drawings. Also it will be readily understood that the section 36 of each main rib may telescope into the section 35 of the said rib and the main ribs thus be shortened to the extent of about one-half their original or normal length.

It will further be observed from an inspection of the drawings and particularly Fig. 3 thereof that the off-set portion 37 of the rib section 36 is broadened to a slight degree so as to fit frictionally between the walls of the channel in which it is received. Also it will be observed from an inspection of Fig. 6 of the drawings that the section 35, in cross section, is more nearly cylindrical than semi-cylindrical so that the section 36 is held against springing out of the channel of the section 37.

What is claimed is:—

In an umbrella, a staff, a main rib comprising an inner section of channel formation, a resilient outer section slidably fitted in the channel of the inner section, the outer section having its inner end portion bent in a curve to project out from the said channel of the inner section with the extremity of the said bent portion bearing frictionally against the bottom of the said channel, the said outer section adjacent its bent portion being bent to form an offset and the portion of the said outer section between its said bent end portion and its offset being spaced from the bottom of the channel of the inner section, the said inner section at its outer end being formed with a sleeve portion having a seat to frictionally receive the offset of the outer section when the sections are relatively extended, a runner upon the staff, and a stay rib pivoted to the runner and to the said bent end portion of the outer rib.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALTER C. WOLFE.

Witnesses:

J. C. REDDING,

L. B. COTTER.

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