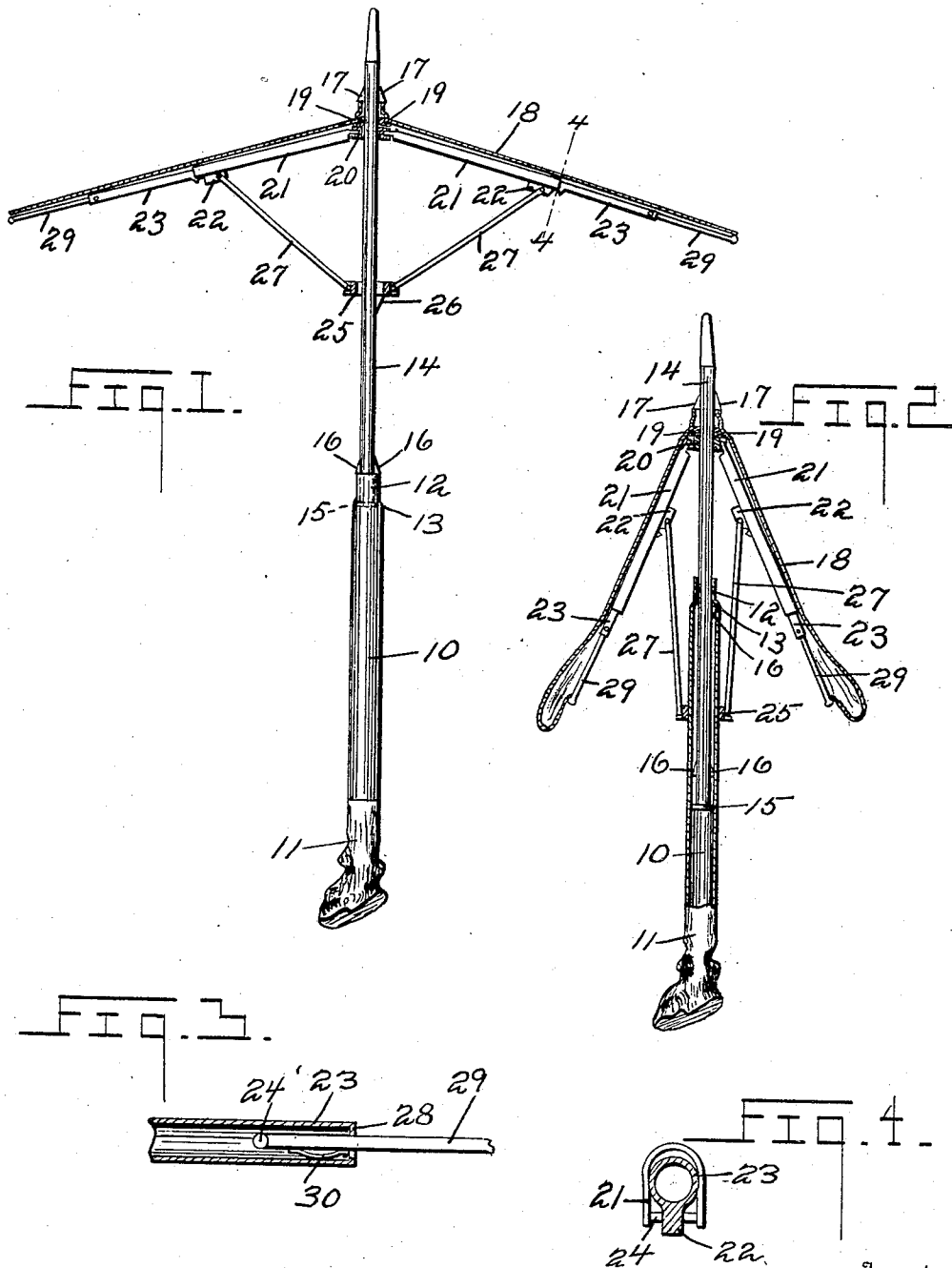


W. BOWMAN.
FOLDING UMBRELLA.
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935,836.

Patented Oct. 5, 1909.



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WILLIAM BOWMAN, OF ATLANTA, GEORGIA.

FOLDING UMBRELLA.

935,836.

Specification of Letters Patent.

Patented Oct. 5, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM BOWMAN, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification.

This invention relates to umbrellas and refers especially to one which is adapted to be folded.

An object of the invention is to construct an umbrella of this character which when folded occupies but comparatively small space to that which is taken up when the same is opened and which is constructed of but few working parts to produce a device which is strong and durable and which can be economically manufactured.

Another object of the invention is the provision of a cover of novel construction which can be readily detached from the frame and of the provision of detachable rib tips which are permanently secured to the cover and which can be withdrawn from the ribs for the ready removal of the cover.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a longitudinal view of the umbrella shown partly in section and in a raised position, Fig. 2 is a longitudinal view of the umbrella in a partly closed position showing the same partly in section, Fig. 3 is a detailed sectional view of the connection of the tip with the outer extremity of one of the ribs. Fig. 4 is a section through the line 4-4 of Fig. 1.

Referring to the drawings, 10 designates a hollow tubing which is provided upon one extremity thereof with a handle 11 of any desired or suitable formation and which is provided with a reduced portion 12 formed upon the opposite extremity thereof. The jointure of the tubing 10 and the reduced portion 12 forms a shoulder 13 at the open extremity of the tubing 10 for the purpose of preventing the passage of the inner extremity of a slidable section 14 therefrom. The section 14 is provided with an outwardly turned

annular flange 15 disposed upon the inner extremity thereof for engagement against the shoulder 13 when the same is extended. The slidable section 14 is provided with oppositely positioned springs 16 which extend laterally for engagement against the reduced portion 12 to prevent the return of the slidable section 14 within the tubing 10. The upper extremity of the slidable section 14 is provided with lugs 17 for the purpose of receiving and of securing in position the cover 18 which is placed over the upper extremity of the slidable section 14 and is secured in such position by a draw string 19. A notch 20 is rigidly disposed adjacent the upper extremity upon the slidable section 14 directly beneath the lugs 17. The notch 20 carries the upper extremities of a plurality of ribs each of which comprises an upper hollow section 21 which is hingedly supported upon the notch 20 and which is longitudinally recessed in its under face for the reception of a depended flange 22 carried upon the upper extremity of a lower rib section 23. The lower rib section 23 is circularly formed and is slidably engaged within the hollow section 21. The lower section 23 is limited in its outer sliding motion by a bar 24 which is formed across the under side of the section 21 at the outer extremity thereof against which is impinged the forward edge of the flange 22. A runner 25 is slidably disposed upon the slidable section 14 and is held in adjusted positions by means of the spring 26 carried in the side of the slidable section 14. The runner 25 is connected by a stretcher 27 to the flange 22 carried upon the lower rib section 23 for the purpose of reciprocating the section 23. The section 23 is of cylindrical formation at its lower extremity and is provided with a stop 24' positioned through the same near the lower extremity thereof. The lower extremity of the section 23 is provided with inwardly turned flanges 28 for engagement about a tip 29 detachably positioned between the same. The tip 29 is provided with a laterally extended spring 30 which is retracted when forced past the flange 28 and which is admitted within the cylindrical portion of the section 23 and expands preventing the accidental displacement of the tip 29. The outer end of the tip 29 engages against the lower end of the lower section 23. The cover 18 is of the usual formation with the exception that it is provided with a central aperture about

which is positioned the draw string 19 for tightening the same about the slidable section 14 between the lugs 17 and the notch 20.

In operation, the runner is reciprocated 5 upon the section 14 of the staff to cause the lower section 23 of the rib to slide within the upper section 21 to expand the umbrella frame and the tips 29 are positioned in the outer extremities of the sections 23 to hold 10 the cover 18 in position. To remove the cover the draw string 19 is first loosened and the runner 25 is moved upwardly upon the section 14 to shorten the ribs by telescoping the sections 21 and 23 of the same. This 15 action loosens the cover 18 and permits of the withdrawal of the tips 29 from engagement in the extremities of the sections 23.

What is claimed is:—

1. A device of the character described comprising a tube, a section slidably disposed in one extremity of said tube, a handle mounted upon the opposite end of said tube, a notch mounted upon the upper extremity of said section, lugs disposed upon said section above said notch, rib sections pivotally carried by said notch, lower rib sections telescopically disposed within said hinged sections, a runner slidably disposed upon said first section, stretchers disposed between said runner and said lower rib sections, a cover 30 disposed over said ribs, tips carried by said cover for engagement in the outer extremities of said lower rib sections and a draw string disposed centrally in said cover for 35 securing the same about said first section beneath said lugs.

2. An umbrella comprising a telescopically formed staff, a runner mounted on said staff,

a notch disposed upon the upper extremity of said staff, a plurality of upper rib sections pivotally supported about said notch, 40 a plurality of lower rib sections telescopically disposed in said upper sections, depending flanges carried by said lower sections at the upper extremities thereof, bars disposed 45 across the under side of said upper sections at the outer extremities thereof for engagement with said flanges, said lower sections having cylindrical portions formed at their outer extremities, flanges mounted at the 50 extremities of said cylindrical portions, tips detachably disposed in said cylindrical portions, springs disposed in said tips for engagement against said flanges to prevent accidental displacement of said tips and a 55 cover carried by said tips extended over said rib sections and said notch.

3. An umbrella comprising a staff, a plurality of ribs mounted on said staff, cylindrical sections formed at the extremities of 60 said ribs, flanges inwardly extended from the outer edges of said sections, tips adapted for engagement in said sections against said flanges, springs disposed in the inner extremities of said tips for lateral extension 65 against said flanges to prevent the accidental displacement of said tips and a cover disposed over said frame permanently secured to the outer extremities of said tips.

In testimony whereof I affix my signature, 70 in presence of two witnesses.

WILLIAM BOWMAN.

Witnesses:

GEO. W. RASSON,
EUGENE L. TILLER.