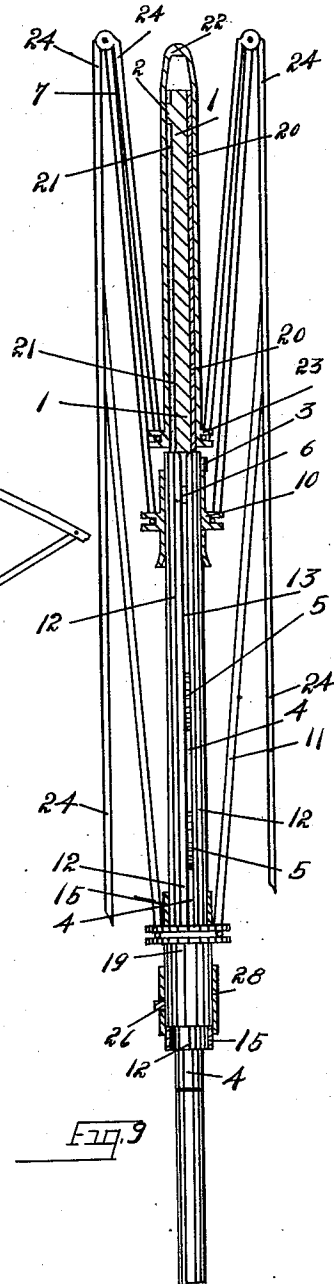
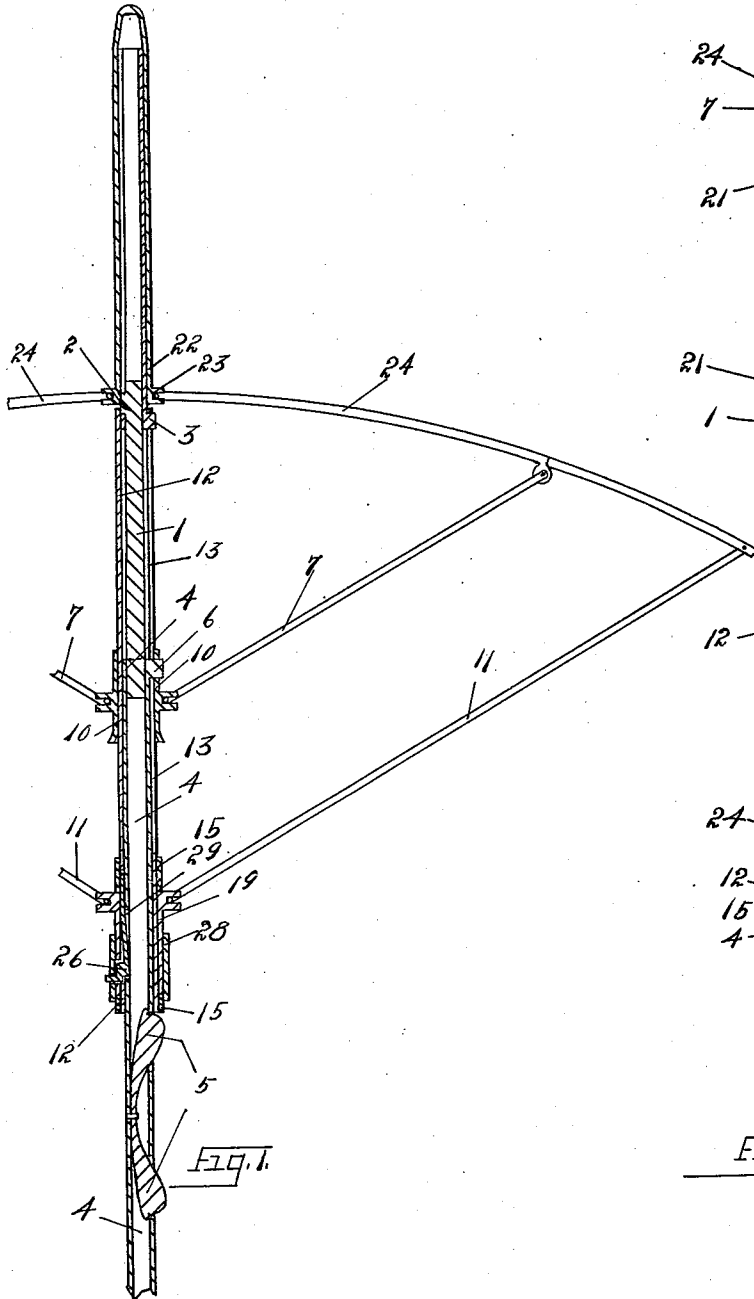


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FOLDING UMBRELLA.
APPLICATION FILED JULY 15, 1911.

1,060,555.

Patented Apr. 29, 1913.

2 SHEETS—SHEET 1.



Witnesses;

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Patented Apr. 29, 1913.

2 SHEETS-SHEET 2.

1,060,555.

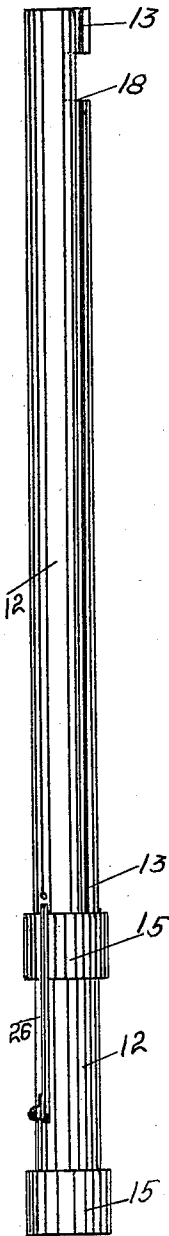


Fig. 2.

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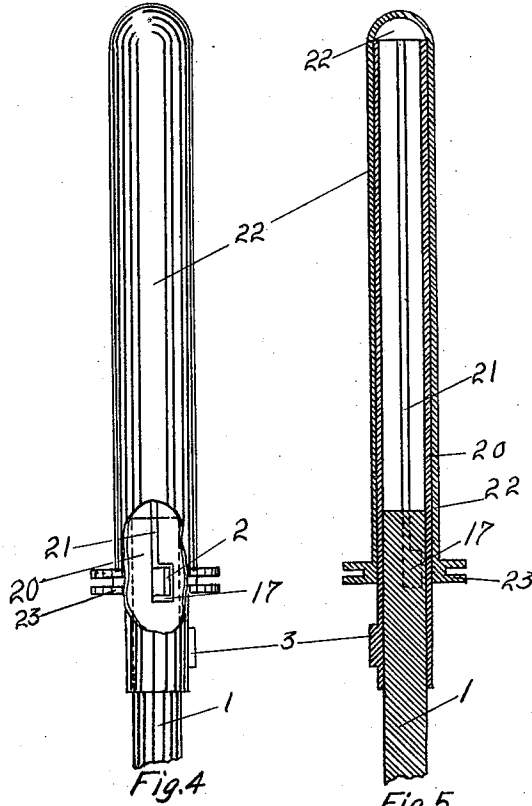


Fig. 4

Fig. 5

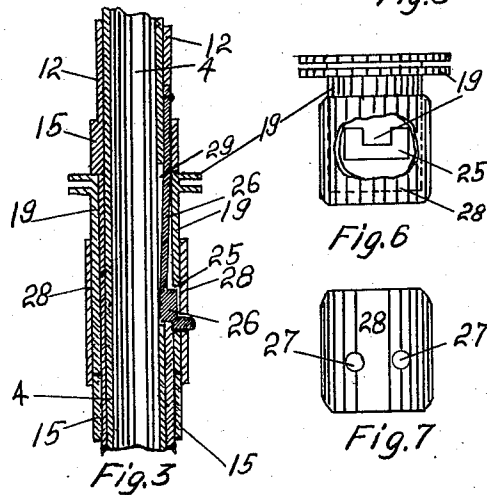


Fig. 3

Fig. 6

Fig. 7

Fig. 8

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JAMES PETERSON, OF PRICE, UTAH.

FOLDING UMBRELLA.

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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 umbrellas, and my purpose is to provide one which may be used as an ordinary umbrella, and by a slight manipulation of some of the parts, may be folded and collapsed into compact form for placing in a grip, suit case or other small receptacle, and one that is suitably and strongly braced, and is neat and attractive in appearance. 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 following specifications, forming a part of this application.

Figure 1 is a longitudinal section of the umbrella when extended, with the cover removed and parts cut away. Fig. 2 is an elevation of the sleeve and spring catch therein, slightly enlarged. Fig. 3 is a longitudinal section, enlarged, of a portion of the umbrella, at the lower runner thereon. Fig. 4 is an enlarged elevation of the casing tip and notch, parts cut away, and parts shown in dotted lines. Fig. 5 is an enlarged longitudinal section thereof. Fig. 6 is an enlarged elevation of the lower runner, parts cut away. Fig. 7 is an enlarged elevation of the sleeve on the lower runner. Fig. 8 is an enlarged elevation of the upper runner. Fig. 9 is an elevation of the umbrella when folded, parts omitted and parts cut away.

In the drawings is shown a staff consisting of a rod 1, having a radially extended lug 2 secured thereon. On the lower portion of said rod 1, is fastened a tube 4, within which is secured a double spring catch 5, which catch is in longitudinal alignment with the lugs 3 and 6, which are hereafter described, when the umbrella is set to use as an ordinary umbrella. Said spring catch 5 is used to hold the lower runner 19 up, when the umbrella is extended. And when the umbrella is collapsed or folded, said catch slides in a longitudinal slot 13 in the sleeve 12. The lower portion of the said catch 5 is provided to also slide in said slot 13 as an additional guide, and to insure

smooth operation of the said sleeve 12 on the tube 4. Said tube 4 has a radially extended lug 6 secured thereon, and on said tube is slidably carried the sleeve 12, having a longitudinal slot 13 cut therein. Said slot 13 is widened near the upper end to form a slot 18. On said sleeve 12 are secured two collars 15, between which the lower runner 19 is rotatably held. On the upper portion of said sleeve 12 is slidably carried the upper runner 10, having a longitudinal slot 8 therein. Said slot 8 is widened at the lower end to form a slot 14, within which at times the said lug 6 is engaged. The inner ends of a set of stretchers 7 are pivoted to said runner 10, and said runner 10 has a portion thereof channeled and notched to form a bearing for the inner ends of said stretchers. Said runner 19 has a portion thereof formed as a notched and channeled bearing for the inner ends of another set of stretchers 11, which are pivoted thereto and to the outer section of the ribs 24. On the upper end of the said rod 1 is carried a thimble 20, having a longitudinal slot 21 therein, within which is made to operate the said lug 2. The lower end of said slot 21 is formed wider at 17, within which widened portion 17 the said lug 2 is at times engaged, to lock the said thimble 20 and the rod 1 together. Covering the upper portion of said thimble 20 is the casing tip 22, to which is secured the notch 23. This notch 23 is used for the same purpose and is made similar to the notch of any umbrella. Pivoted in the said notch 23 is the inner end of a set of severed and hingedly connected ribs 24. The said set of stretchers 7 are pivoted to the said ribs 24 at the hinged joint therein. The pivotal point of said rib sections and of each of said stretchers 7 is without the plane of said ribs, in order that when folded the sections of the ribs may lie parallel with the inclosed stretcher. Within the side of said lower runner 19 is cut a U-shaped slot 25 and within and to said sleeve 12 is fastened the spring catch 26. Said catch 26 is made to engage at all times in some part of said U-shaped slot 25. Said spring catch 26 is so formed that when it is adjacent to either leg of said U-shaped slot 25, the radially extended portion thereof will extend through one of the holes 27, cut in a sleeve 28. Said sleeve 28 is secured on the lower portion of said lower runner 19.

When said spring catch 26 is adjacent to the transverse portion of said U-shaped slot 25, the body portion of said spring catch 26 will engage and slide on that part of the inner portion of the lower runner 19 which is between the legs of said U-shaped slot, and permit the rotation of said sleeve 12 the distance between said holes 27. At all times the said sleeve 12 is held from axial turning on the said tube 4 by either one or the other of the said spring catch 5 or of said lugs 3 or 6, by their engaging in the longitudinal slot 13; while said slot 13 allows longitudinal sliding of said sleeve 12 on said tube 4. When the said tube 4 is given an axial rotation, as in changing the umbrella from one form to the other, the said sleeve is rotated by the said tube. An opening 29 is provided in said tube 4, adjacent to said spring catch 26 when the umbrella is extended, to allow the lower end of said spring catch 26 to be pressed therein when so desired, which is necessary and desirable in changing the umbrella from the ordinary collapsing form to the folding form. When said spring catch 26 is so pressed within said opening, the engagement of the inner portion of said spring catch in said opening 29, will prevent the collapsing of the umbrella in either form. Near the lower end of said thimble 20 is secured the radially extended lug 3, which at times is made to engage in the slot 18 in the sleeve 12 to lock the said thimble 20 and parts connected therewith to the said sleeve 12.

To use my umbrella as an ordinary umbrella, it is necessary to lock the said tube 4 and its connected rod 1, to the said thimble 20 and its connected parts. This is done by turning the said tube 4 so the lug 2 will engage in the widened portion 17 of the said slot 21 in said thimble 20. When in this position the upper runner, the lower runner and sleeve 12 with their connected parts, are free to slide longitudinally on the tube 4, except as held by the spring catch 5.

To change the umbrella to the folding form, the radially extended portion of the spring catch 26, as it extends out through one of the said holes 27, is depressed therein by holding the lower runner 19 and pushing in on said spring catch 26. At the same time by grasping the handle of the umbrella, which is secured on the lower end of the said tube 4, the said tube and parts connected therewith are given a turn to the left sufficient to allow the radially extended portion of said catch 26 when in alinement therewith to enter the other of said holes 27. In so turning the tube 4, the lug 2 is withdrawn from the slot 17 and into the slot 21, and may be operated longitudinally therein. The said turning of the said tube 4 will turn the sleeve 12 so the lug 3 will engage

in the slot 18, and the lug 6 will be turned into the slot 14 in the upper runner 10, the lug 6 and the catch 5 will be in the longitudinal slot 13. By then pressing on the upper end of the said spring catch 5, the umbrella will collapse and fold. In so folding the notch 23 and its connected parts will slide down on the rod 1, the upper runner 10 remaining in practically the position as shown in Fig. 1, while the lower runner 19 will slide down over the spring catch 5, carrying the sleeve 12 and the lower set of stretchers 11 down also, and thus collapse and fold the umbrella.

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

1. A folding umbrella consisting of severed and hingedly connected ribs, a notch to which said ribs are pivoted, a casing tip secured to said notch, a thimble in said casing tip having a longitudinal slot therein with a portion of said slot widened, a rod, adapted to telescope within said thimble, a radially extended lug on the upper portion of said rod and adapted at times to engage within the widened portion of the slot in said thimble and at other times to slide longitudinally in the longitudinal slot in said thimble, a radially extended lug on said thimble, a tube secured on the lower end of said rod and having a slotted opening therein, a radially extended lug on said tube, a sleeve carried on said tube having a longitudinal slot therein a portion of said slot being widened, a spring catch secured in said sleeve having a portion thereof radially extended, an upper runner carried on said sleeve and having a longitudinal slot therein a portion of which is widened, a set of stretchers pivoted thereto and having their outer ends pivoted to said ribs at the hinged joint therein, another runner carried on said sleeve between collars thereon and having a U-shaped slot in its side, and a sleeve secured on said last mentioned runner having two holes in its side adapted to receive the radially extended portion of said spring catch.

2. A folding umbrella consisting of severed and hingedly connected ribs, a notch, a hollow tip secured thereto, a thimble secured in said tip having a longitudinal slot therein, a radially extended lug on said thimble, a rod adapted to telescope within said thimble, a radially extended lug on said rod and adapted to operate in the slot in said thimble, a tube fastened on the lower end of said rod and having a slot in its side, a radially extended lug thereon, a sleeve carried on said tube having a longitudinal slot therein, a spring catch secured therein, a runner carried on said sleeve having a slot therein, a plurality of stretchers one end of which is pivoted to said runner

and the other ends being pivoted to said ribs at the joint in said ribs, another runner also carried on said sleeve and having a U-shaped slot in its side, and a sleeve on
5 said runner having two holes therein.

3. In a folding umbrella the combination of a staff a portion of which is tubular, two radially extended lugs thereon, one on the rod portion and the other on the tube portion, a notch carried on said staff, a casing
10 tip secured to said notch, a thimble fastened in said casing tip having slots therein, severed and hingedly connected ribs pivoted to said notch, a radially extended lug on the
15 lower end of said thimble, a sleeve carried on said staff having slots in its sides, a spring catch in the side of said sleeve, a runner on said sleeve having slots in its sides, a set of stretchers pivoted to said runner and to said ribs at the joint in each,
20 another runner carried on said sleeve between collars thereon and having a U-shaped slot in the side, and a sleeve secured on said last mentioned runner having openings in its side adapted to receive a portion
25 of said spring catch when it is adjacent said openings.

4. In a folding umbrella the combination of severed and hinged ribs, a notch, a casing
tip secured to said notch, a thimble fastened 30 in said casing tip having slots therein, a radially extended lug on said thimble, a rod, a radially extended lug thereon adapted to operate in the slots in said thimble, a tube on the lower end of said rod, a double 35 spring catch therein, a lug on said tube, a sleeve carried on said tube having slots in its side a spring catch secured in the side of said sleeve, a runner carried on said sleeve having slots in its side, a set of 40 stretchers pivoted between said runner and the joint in the ribs, another runner on said sleeve having a U-shaped slot in its side adapted to receive a portion of said spring catch, and a sleeve covering said U-shaped 45 slot having holes therein adapted to receive a portion of said spring catch when adjacent thereto.

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

JAMES PETERSON.

Witnesses:

BEN L. CORUM,
G. H. BLAKELY.

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