

J. PETERSON & J. G. CALLAWAY.

FOLDING UMBRELLA.

APPLICATION FILED JULY 13, 1909.

959,962.

Patented May 31, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

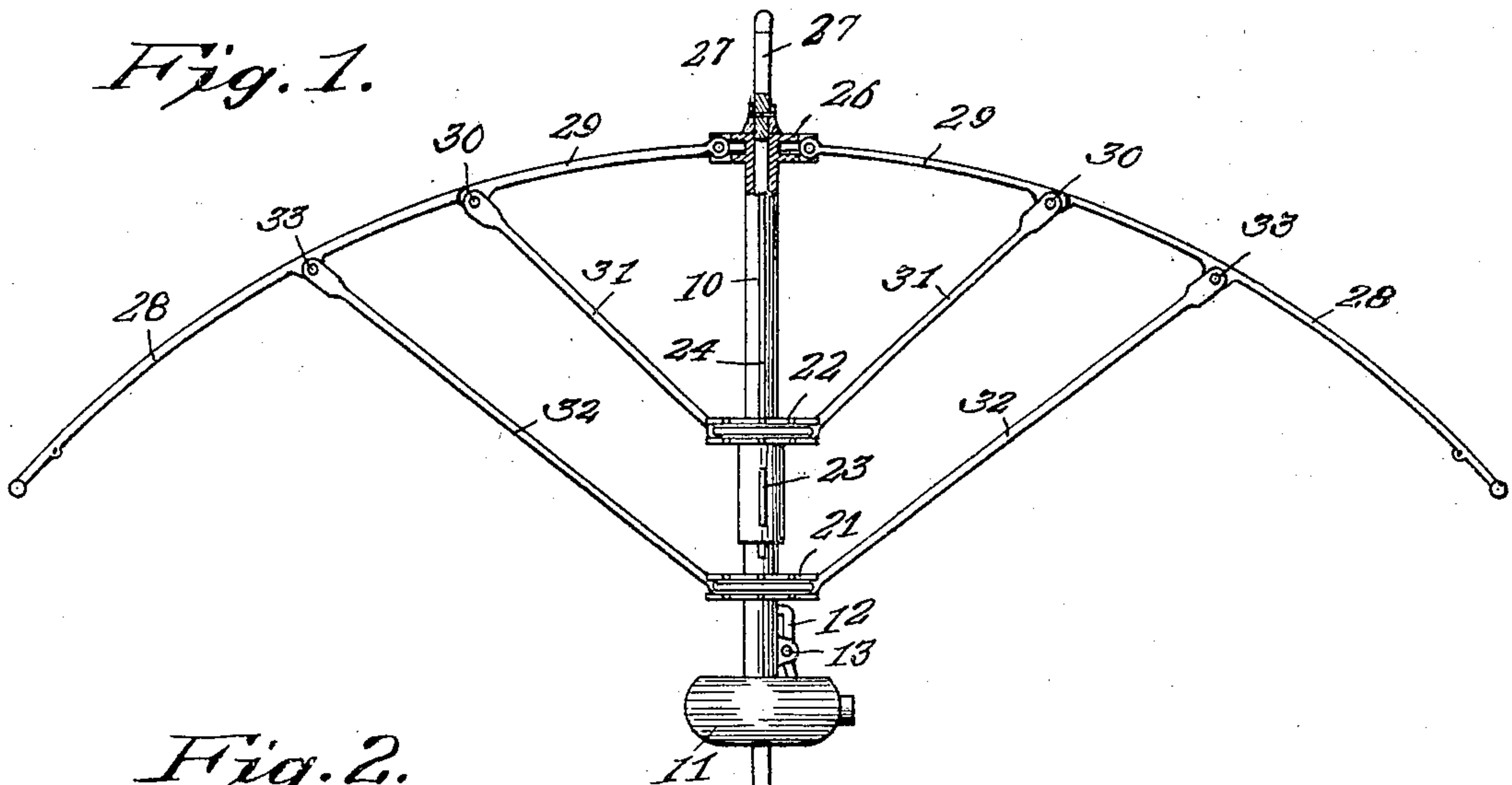
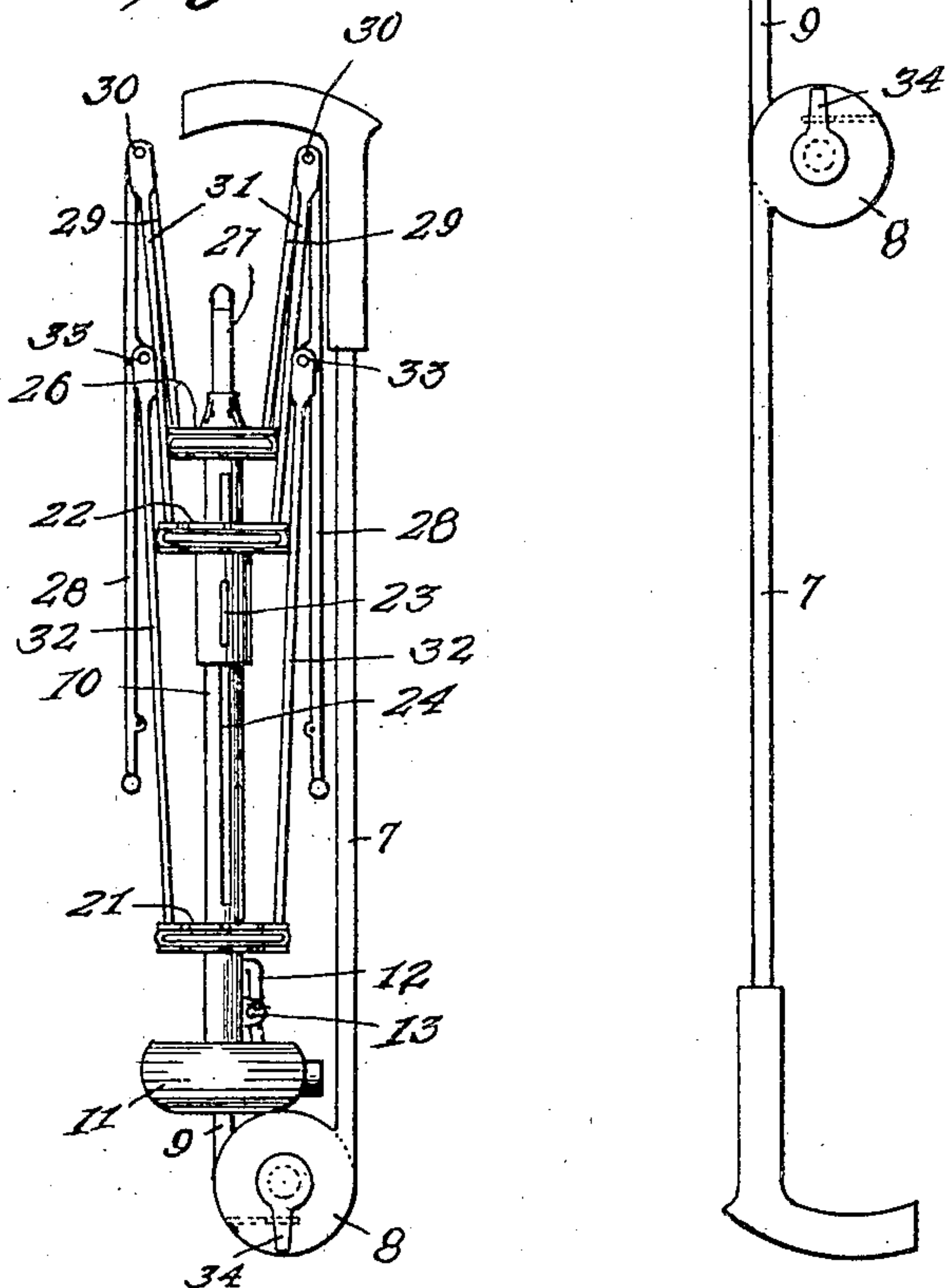


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

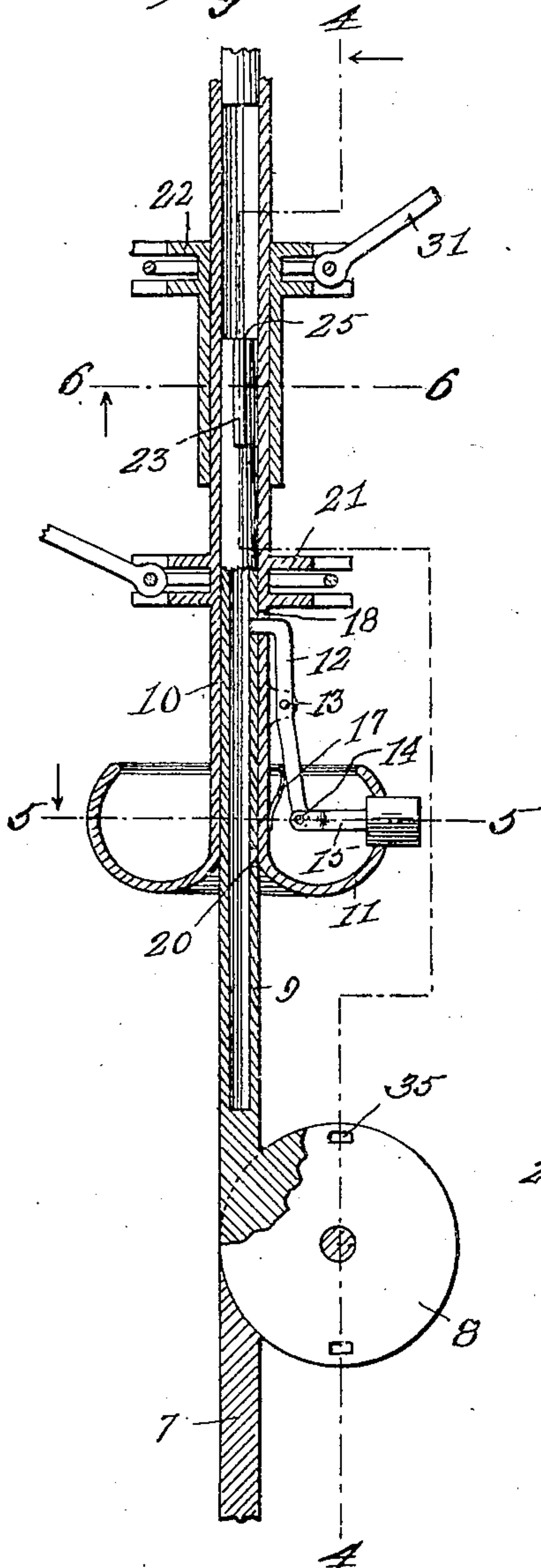


Fig. 5.

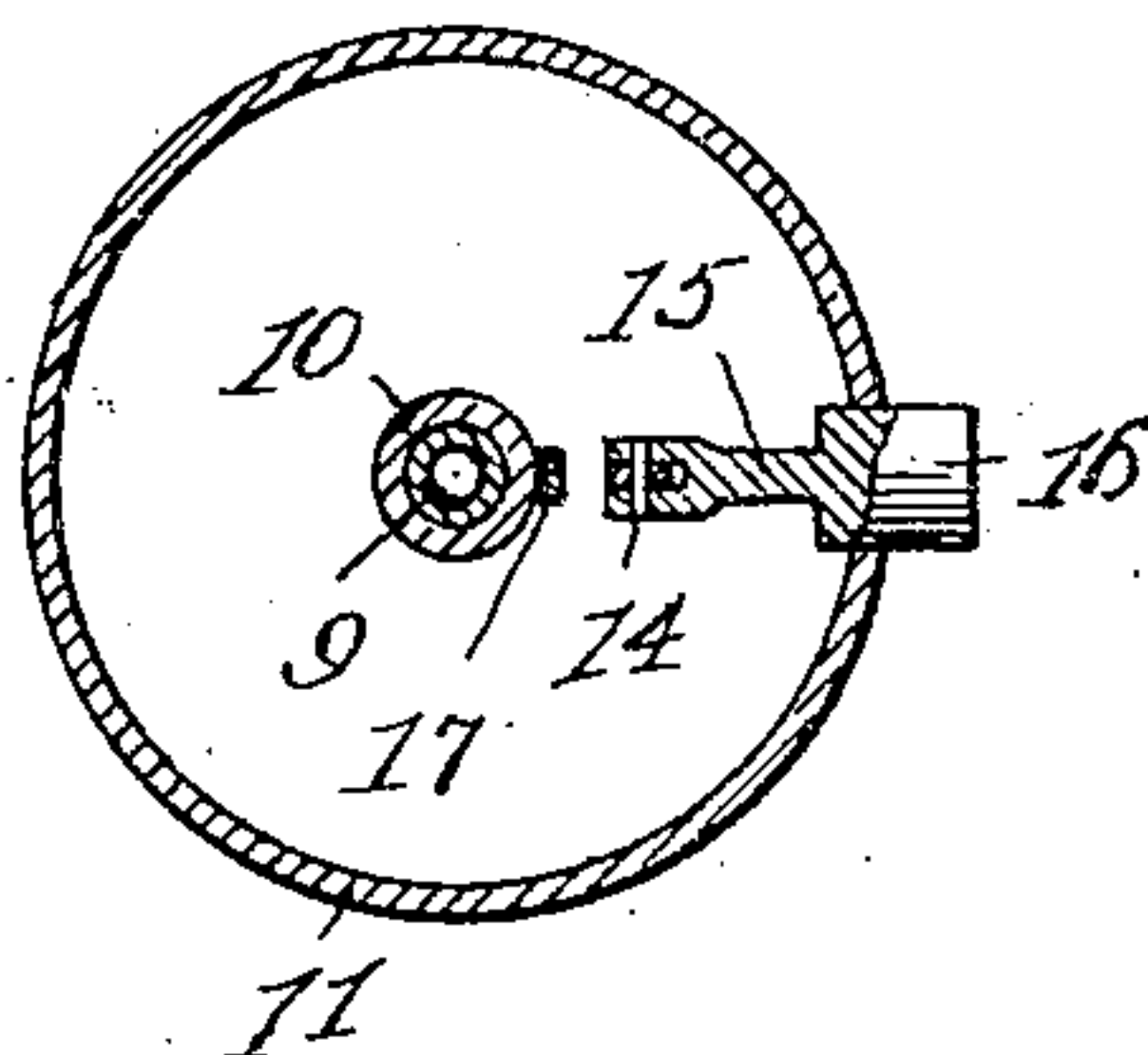


Fig. 6.

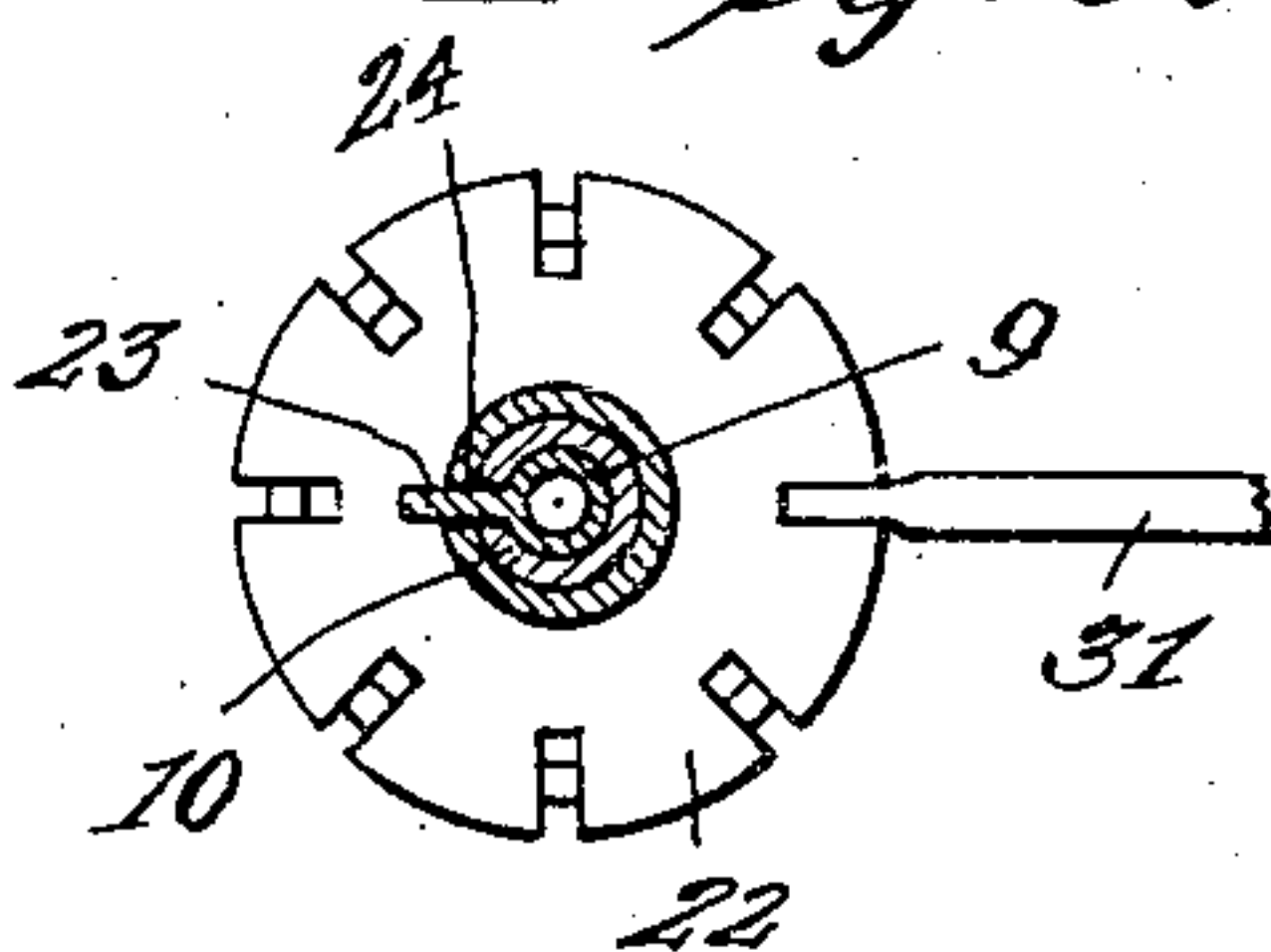
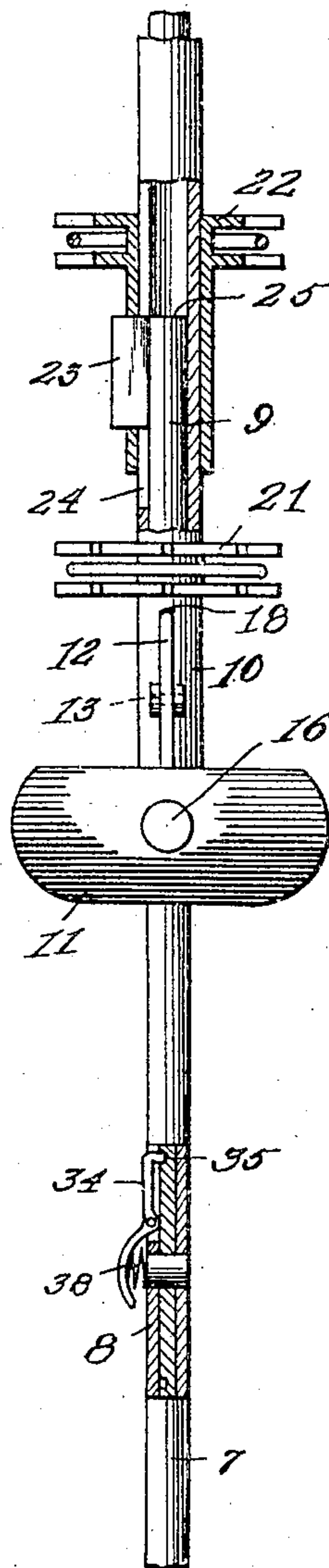


Fig. 4.



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# UNITED STATES PATENT OFFICE.

JAMES PETERSON AND JAMES G. CALLAWAY, OF PRICE, UTAH.

FOLDING UMBRELLA.

959,962.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed July 13, 1909. Serial No. 507,389.

*To all whom it may concern:*

Be it known that we, JAMES PETERSON and JAMES G. CALLAWAY, citizens 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, reference being had to the accompanying drawings.

Our invention relates to umbrellas and has for its object to provide an umbrella which may be collapsed and folded into a very small package so that it may be carried in a trunk, suit case, or satchel and yet be of practical and effective form, and suitably braced when extended or opened for use.

With this object in view, our invention consists in the improved construction, arrangement and combination of the parts of a folding umbrella, all as hereinafter fully described and afterward specifically claimed.

In order that others may be enabled to construct and use our invention we have illustrated an embodiment of it in the accompanying drawings, in which—

Figure 1 is a view in elevation, partly in section, of an umbrella constructed in accordance with our invention, the cover and a portion of the ribs being omitted, the umbrella being extended for use; Fig. 2 is a similar view of the same parts folded or collapsed; Fig. 3 is a longitudinal vertical sectional view of part of the structure, sufficient to illustrate the connection and movement of the parts, some of the parts being shown in elevation; Fig. 4 is a vertical sectional view taken on the plane indicated by the broken line 4—4 of Fig. 3 looking to the left as indicated by the arrow; Fig. 5 is a transverse sectional view taken on the plane indicated by the broken line 5—5 of Fig. 3 looking downward as indicated by the arrow; and Fig. 6 is a transverse vertical sectional view taken on the plane indicated by the broken line 6—6 in Fig. 3, looking upward as indicated by the arrow.

Like reference characters indicate the same part in all the figures of the drawings.

Referring specifically to the drawings 7 indicates the outer portion of the handle which is joined by a rule joint 8 to the inner portion 9, the rule joint being widened as clearly indicated, in order to bring the two sections 8 and 9 at a suitable distance apart

to properly fold the lower section 7 outside of the ribs and stretchers when the umbrella is collapsed as in Fig. 2.

Upon the upper portion 9 of the handle is arranged to slide, a tube 10 which at its lower end carries an annular head or extension 11 which forms a hand hold by which to slide tube 10 upward and downward on the handle 9, said tube being retained in either position by a catch 12 pivoted at 13 to the tube 10 and extending into the hand hold 11, its lower end being pivoted at 14 to a link 15 provided with a head 16 which projects through an opening in the side of the hand hold 11 in position to be manipulated by the thumb of the operator. A catch 12 is normally pressed inward by a spring 17 and when the umbrella is raised engages in an opening 18 in the tube 9 and when lowered, in an opening 20 in the same tube. There are two runners, the lower one 21 being attached directly to the tube 10 while the upper one 22 is slidable on the tube and connected by a wing 23 projecting radially from the handle 9 through a slot 24 in said tube 10 so that when the handle 9 is moved with relation to the tube 10, the lower runner 21 will move with the tube and the upper runner 22 with the handle. The handle 9 has its upper end, as at 25 in Figs. 3 and 4, below the upper runner 22, the tube 9 extending beyond that point and serving to support the top notches 26, Fig. 1. The tip 27 of the handle is rigidly secured in the upper end of the tube 9. The ribs are each composed of two sections 28 and 29 pivoted together at 30 the same pivot serving to connect the upper set of stretchers 31 with the ribs, the inner ends of said stretchers being connected in the usual manner to the runner 22. There is a second or lower set of stretchers 32 pivotally connected at 33, to the outer sections 28 of the ribs and at their inner ends to the lower runner 21.

To raise the umbrella the hand hold 11 is grasped, the thumb pressing the head 16 inward whereby the spring catch 12 is released from the notch 20, the hand hold, with the tube 10 being then pressed upward, causing the sleeve or tube 10 to be raised on the handle 9 carrying the top notches 26 and lower runner 21 to the position shown in Fig. 1, the upper top notches 22, by virtue of their connection with the handle 9, as



hereinbefore described, being carried downward relatively to the tube or sleeve 10, also to the position shown in Fig. 1, in which position the spring catch 12 will snap into the opening 18 in the tube 10 and hold all the parts distended, the umbrella being open for use as shown in Fig. 1. To fold or collapse the umbrella these movements are reversed. By grasping the hand hold 11 with the right hand and the section 7 of the handle with the left hand, and pressing upon the head 16, the spring catch 12 is released from the hole 18 when the hand hold can be drawn outward, or downward on the handle, sliding the tube 10 with it. This draws the lower runner 21 outward on the handle with the tube 10 to the position shown in Fig. 2, together with the top notches 26, the draft of the lower stretchers 32 on the sections 28 of the ribs causing said sections to be folded inward on the pivot 30 as a fulcrum. The handle section 9 being moved outward relatively to the tube 10, the upper runner 22, by virtue of its connection 23 with the handle, is moved in the same direction and causes the joint 30 at the outer end of the stretchers 31 to be moved upward and inward close to the tip 27. The umbrella is now closely folded, the cover portion thereof only occupying an amount of room equal in extent along the length of the handle, to the length of the outer section 28 of the ribs. The two sections 7 and 9 of the handle are held in a line with each other by means of a spring catch 34 pivoted to one plate of the rule joint 8 and normally engaging in an opening 35 in the other plate. To finish the operation of folding the umbrella this spring joint 38 is released, when the section 7 of the handle may be folded on the rule joint to the position shown in Fig. 2.

By means of the mechanism described, we are enabled to fold an ordinary size umbrella into a sufficiently small and compact bundle to permit of its being carried in an ordinary satchel, suitcase or trunk and when the umbrella is extended or opened for use, every part is rigidly braced and held securely in position.

The construction is simple and may be economically made and while we have described the various parts specifically, it will be obvious that variations may be made in

the construction thereof without departing from the spirit and scope of our invention. 55

Having thus described the invention, what is claimed is:

1. A folding umbrella comprising a handle, a sleeve mounted on the handle, a spring catch upon the sleeve, the sleeve having an opening to permit the catch to project through it and into the handle, a lower runner secured to the sleeve, said sleeve being also provided with a vertical slot, an upper runner vertically slotted on one side, a wing projecting radially from the handle through the slots in the sleeve and upper runner, top notches secured to the sleeve, ribs comprising inner sections pivoted to the top notches and outer sections pivoted to the inner sections, stretchers connecting the upper runner with the joint between the inner and outer sections of the ribs, and stretchers connecting the lower runner with the outer sections of the ribs intermediate their ends. 75

2. A folding umbrella comprising a handle consisting of a plurality of sections hinged together, a sleeve mounted on the handle, a hand hold mounted on the sleeve, a spring catch pivoted to the sleeve and having a head projecting from the hand hold, the sleeve having an opening to permit the catch to project through it into the handle, a lower runner secured upon the sleeve, the sleeve being provided with a vertical slot, an upper runner vertically slotted on one side, a wing projecting radially from the handle through the slots in the sleeve and upper runner, top notches secured to the sleeve, ribs comprising inner sections pivoted to the top notches and outer sections pivoted to the inner sections, stretchers connecting the upper runner with the joint between the inner and outer sections of the ribs, and stretchers connecting the lower runner with the outer sections of the ribs intermediate their ends. 95

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

JAMES PETERSON.  
JAMES G. CALLAWAY.

Witnesses:

JAMES H. WORRALL,  
J. ARTHUR THOMAS.