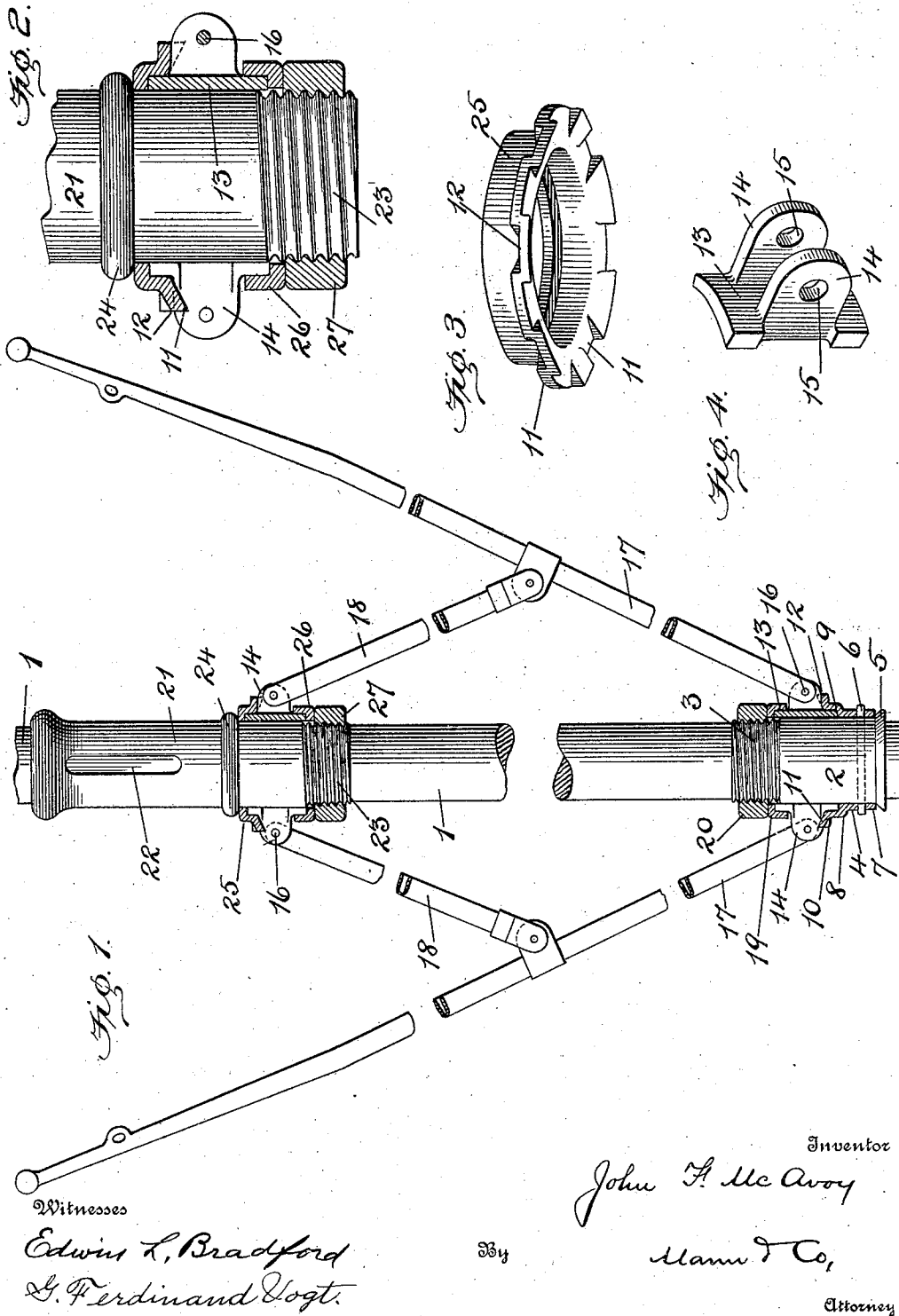


No. 847,805.

PATENTED MAR. 19, 1907.

J. F. McAVOY.
UMBRELLA AND PARASOL.
APPLICATION FILED MAR. 21, 1906.



Witnesses

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UMBRELLA AND PARASOL.

No. 847,805.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN F. McAVOY, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Umbrellas and Parasols, of which the following is a specification.

This invention relates to improvements in umbrellas or parasols, and has particular reference to those devices employed to pivotally secure the ribs and stretcher-bars in position about the rod.

One object of the invention is to provide detachable and independent retaining devices for the ribs or stretchers whereby to enable a broken or damaged rib to be readily removed and a new one substituted.

Another object of the invention is to provide a construction whereby the retaining parts are interchangeable and which may be formed from sheet metal, thus reducing the cost to a minimum.

With these and other objects in view the invention is illustrated in the accompanying drawings, in which—

Figure 1 illustrates a portion of an umbrella or parasol rod which is provided with the improved retaining devices, which latter are shown partly in section. Fig. 2 is an enlarged sectional detail of the retaining devices. Fig. 3 illustrates an enlarged perspective view of the spacing-ring employed on the runner, and Fig. 4 is a perspective view of one of the detachable rib-retainers.

Referring to the drawings by numerals, 1 designates the umbrella or parasol rod, which may be of any desired form and on one end of which is secured a metal sleeve 2. This sleeve has position on that end of the rod which is opposite to the handle and which in the present case will be termed the "lower" end. The upper end of this sleeve is provided with exterior screw-threads 3 for a purpose to be presently described. A ring or collar 4 surrounds the lower flared end 5 of the sleeve and is held rigidly in place by means of a pin 6, which extends through said ring and sleeve and also through the rod. The function of this ring is to sustain and space the rib-retaining devices. This ring has a circular portion 7, which snugly fits the sleeve, and its wall above said circular portion extends outwardly at 8, so as to form an annular space 9 around the sleeve. The upper

end of the ring is provided with a lateral flange 10, which has a plurality of vertical projections 11 at regular intervals apart, forming horizontal seats 12 between each two projections.

The rib-retaining devices are independent of each other, and each comprises a plate 13, which is curved to conform to the circumference of the sleeve, and projecting laterally from said plate are parallel ears or lugs 14, each of which has a perforation 15, through which a pin or rivet 16 passes. The position of the ears or lugs is such that the plate projects both above and below the latter, so that the lower portion of the plate may fit down or enter the annular space 9 between the sleeve and ring, while the lugs 14 will project over the flange 10 of the ring and lie on the seat 12 between the projections 11, and thus be held from lateral movement.

The ribs 17 may be of any preferred form; but each has its lower ends fitted between the lugs 14 of one of the plates 13, so as to be pivotally connected to the lugs by the pins or rivets 16. The stretcher-bars 18 are also pivoted at one end to the ribs as usual, and their other ends are pivoted to the lugs or plates the same as the ribs, so that each rib and stretcher-bar is pivotally connected between the lugs of a rib-retainer.

In order to hold the plates 13 against the sleeve 2, a retaining-collar 19 is placed over the sleeve and embraces all of the said plates, and an internally-threaded locking-collar 20 is then screwed down on the threaded end of the sleeve and crowds the retaining-collar down over the ends of said rib-retaining plates and holds the latter rigidly in place.

At the upper or handle end the rod 1 is provided with a tubular runner 21, having the usual slot 22 for the reception of the usual retaining-spring. The lower end of this runner is provided with screw-threads 23, and between said screw-threads and said slot the runner is provided with an exterior shoulder or circumferential bead 24. A spacing ring or collar 25, similar to the collar 4 on the lower sleeve 2, surrounds the runner and has position just beneath the bead 24. This collar is also provided with vertical projections and horizontal seats or recesses between each two projections for the lugs of the stretcher-bar-retaining devices to fit into. A retaining-collar 26 is also employed to sur-

round the runner and to hold the stretcher-bar-retaining devices against said runner, while a locking-collar 27 screws onto the lower end of said runner and holds the retaining-collar in place.

The operation of the runner on the rod will raise or lower the stretcher-bars and ribs in the usual manner, while the construction of the rib and stretcher-bar-retaining devices is such that by loosening the collars any particular rib and stretcher-bar that has become damaged may be quickly removed and a new one substituted by an unskilled person.

The construction of the various parts is such that they may all be stamped from sheet metal and the cost of manufacture therefore minimized.

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

1. An umbrella or parasol having a rod; a stationary sleeve near one end of said rod; ribs pivotally sustained about said sleeve; a runner having a screw-threaded end; a ring surrounding said runner and having an annular space between it and the runner; a retaining-collar also surrounding said runner and having an annular space between it and said runner; a plurality of removable plates seated in said annular spaces and clamped between said ring and collar and surrounding the runner; a screw-threaded collar engaging the threads on the runner for clamping the plates between the ring and retaining-collar; a stretcher-bar pivotally connected

to each of said plates, and means for pivotally connecting the stretcher-bars and ribs.

2. An umbrella or parasol having a rod, a stationary sleeve near one end of the rod; a ring surrounding the sleeve and having a lateral flange which is provided with a plurality of vertical projections; independent retaining-plates surrounding the sleeve and each plate having lugs which project between two vertical projections of the ring-flange; a rib pivotally connected to the lugs of each of said plates; a runner also on the rod and stretcher-bars pivotally connected to the ribs and runner.

3. An umbrella or parasol having a rod, a stationary sleeve near one end of said rod; ribs pivotally sustained about said sleeve; a runner; a ring surrounding said runner and having a lateral flange which is provided with a plurality of spaced-apart vertical projections; a retaining-collar also around the runner; a plurality of removable plates curved to conform to the circumference of the runner and having laterally-projecting lugs, said plates being held at their upper and lower edges by the ring and collar; stretcher-bars pivotally connected to the lugs of the removable plates and also to the ribs.

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

JOHN F. McAVOY.

Witnesses:

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