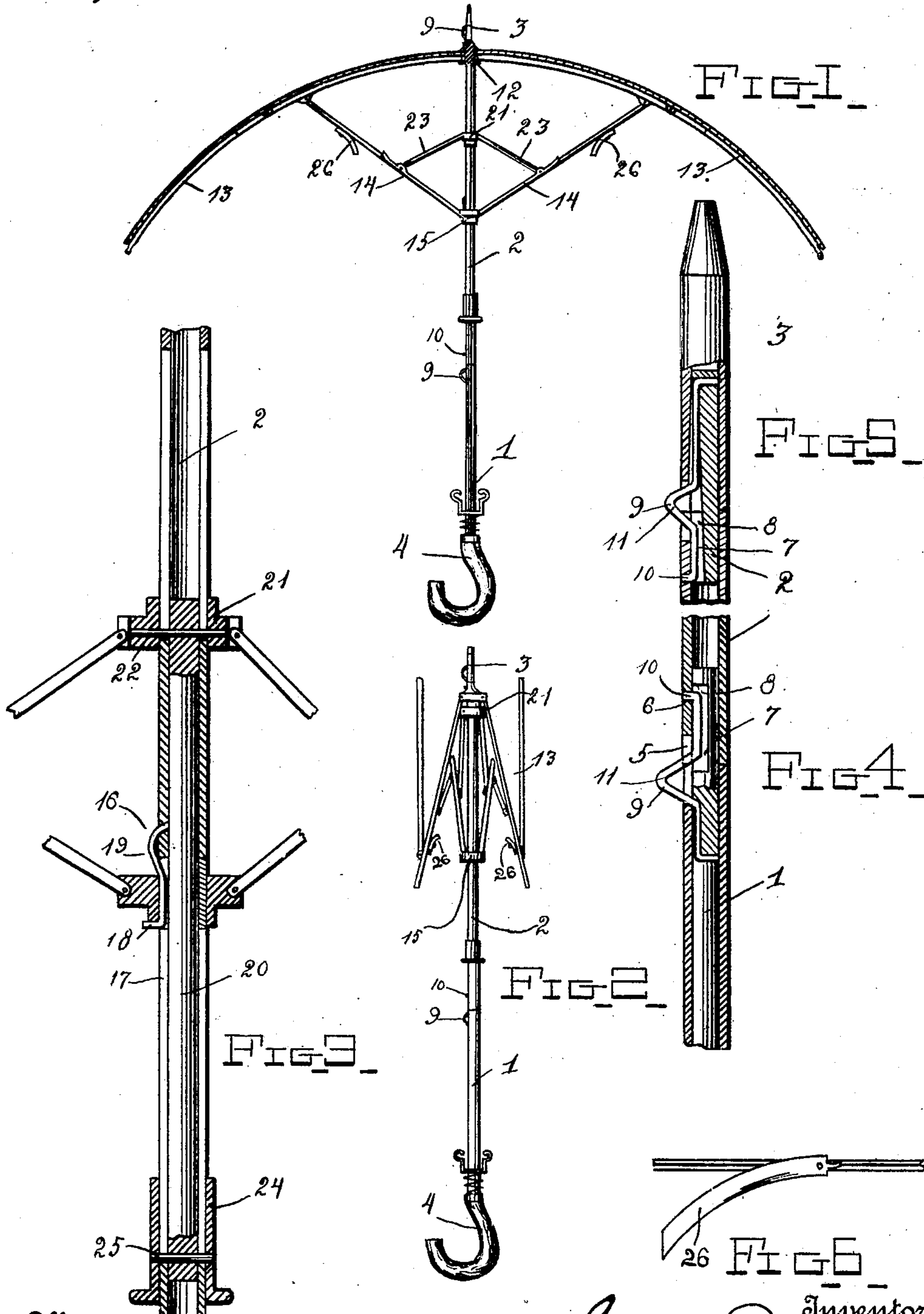


S. PERPICH.
UMBRELLA.

APPLICATION FILED DEC. 20, 1907.

912,163.

Patented Feb. 9, 1909.



Witnesses
C. S. Stetzer.
W. C. Lawson.

Inventor
Stereos Perpich,
By F. M. Appleman
Attorney

UNITED STATES PATENT OFFICE.

STEVENS PERPICH, OF STEELTON, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO MARTIN PEROS, OF STEELTON, PENNSYLVANIA.

UMBRELLA.

No. 912,163.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed December 20, 1907. Serial No. 407,320.

To all whom it may concern:

Be it known that I, STEVENS PERPICH, a subject of the Emperor of Austria-Hungary, Province of Croatia, city of Glina, residing at No. 565 South Third street, Steelton, Dauphin county, Pennsylvania, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

This invention relates to new and useful improvements in umbrellas and has relation more particularly to that class known as folding umbrellas.

It is primarily the object of this invention to provide a novel device of this kind that may be easily folded within a small space so that it may be readily stored when not in use.

It is also an object of the invention to provide a novel structure whereby the umbrella is opened by a downward pull on the runner and closed by an upward movement thereof.

It is also an object of the invention to provide a novel device of this character which will be caused to partly open automatically to permit the user to have access to the operating parts.

It is also an object of the invention to provide a novel fastening means for the various sections of the rod.

Finally an object of the invention is to produce a device of the character noted, which will possess advantages in points of simplicity, efficiency and durability, proving at the same time comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, in which—

Figure 1, is a view partly in elevation and partly in cross section of the umbrella in an open position, parts being omitted; Fig. 2, is a view similar to Fig. 1, showing the device partly folded; Fig. 3, is a view partly in section and partly in elevation of a detail of the invention; and Figs. 4 and 5, illustrate additional details. Fig. 6, is an enlarged de-

tail view of the means for holding the umbrella partially opened.

In the drawings 1, 2, and 3, represent the sections of the rod. The section 1, carries the handle 4, the section 2, carries the operating mechanism, while the section 3, may be termed the "tip". These sections may be secured one to the other in any desired manner, but preferably as illustrated in the drawings. The section 2, is hollow throughout its length and is provided adjacent each end with an elongated slot 5, and in alignment therewith an opening or aperture 6. The ends of the section 1 or 3, are provided with plugs 7, having grooves 8. Each of these plugs carries a spring 9, which is to be compressed within the groove 8, and terminates in an outturned portion 10. This outturned portion 10, is intended to pass through the opening 6 from within, when applied to the section of the rod. The portion of the spring adjacent its attachment to the plug is crimped or pinched to form an approximate V-shaped portion 11. When it is desired to release the spring catch from the opening 6, pressure is applied to this V-shaped portion 11. This fastening means, in practice, has been found a most positive attachment.

Secured adjacent the upper end of the section 2, is the crown 12, which has secured thereto the ribs 13. Each of these ribs 13, is formed of a plurality of sections pivoted one to the other. The ribs 13, are supported by the braces 14, pivoted to the inner sections of the ribs 13, adjacent their outer ends and to a sleeve 15, immovably fixed to the section 2, of the umbrella rod. These braces 14, are formed of a plurality of sections, hinged one to the other and are intended to fold inwardly and upwardly by an arrangement to be hereinafter referred to. The sleeve 15, may be secured to the rod section 2, by any means, but it is preferred that the structure illustrated be employed. Secured to the section 1, above the sleeve is a wire 16, which is bent downwardly and passes through the bore of the sleeve 15, and within the slot 17, in the section 2, to be hereinafter referred to. The lower portion of this wire 16, is bent outwardly as at 18, said bent portion contacting with the under surface of the sleeve 15, and thereby holds the same against any movement downwardly on the

section 2. The sleeve 15, is held against movement in an opposite direction by the inclined portion 19, of the wire, said inclination being formed when the wire is applied to the sleeve.

Section 2, of the rod is provided with opposed slots 17 and 18 above and below the sleeve 15, and said section has an internal rod 20, slidable longitudinally thereof. Embracing the section 2, above the sleeve 15, is a runner 21, which is secured to the rod 20, by a cross pin 22, extending through the runner and the rod and passing through the slots 18, of the section 2.

Pivotally secured to the runner 21, are the arms 23, which are in turn pivoted to the inner sections of the braces 14, adjacent the upper ends thereof. There is an arm for each of the braces 14. When the rod 20, is forced upwardly within the section 2, it causes the ribs 13, to be closed and vice versa. In order that movement may be given the rod 20, a thimble or sleeve 24, embraces the lower portion of the section 2, and is secured to the rod 20, by a pin 25, passing through the thimble and the rod and extending through the slots 17.

Without going into detail, it is thought that the manner in which this umbrella may be folded and packed will be readily understood from the foregoing description taken in conjunction with the drawings. In umbrellas of this character it has heretofore been found extremely difficult for the user to gain access to the operating parts of the umbrella without injuring the hand. To obviate this disadvantage, the outer sections of the braces 14, are provided with

flat springs 26, which, when the umbrella is folded, will bear against the inner sections of the braces 14. These springs will always have a tendency to hold the umbrella slightly open, so that the hand may readily engage the thimble 24, without contacting with any of the braces or ribs.

I claim—

In a folding umbrella, a rod comprising three sections, a tip, a central section and a handle, suitably secured together, said central section being hollow throughout its length, ribs secured to the rod adjacent the juncture of the central section and the tip, said ribs comprising pivotally connected upper and lower sections, a sleeve immovably fixed to the central section, said central section being also provided with opposed longitudinal slots on either side of the sleeve, a runner slidable in slots intermediate the sleeve and tip, arms pivoted to the runner, braces pivoted to said sleeve and the upper sections of the ribs, said braces comprising pivotally connected upper and lower sections, the aforesaid arms being also pivoted to the lower sections of the braces and a rod slidable in the hollow section secured at one end to the runner and provided at the other end with a thimble slidable in the other slots for manipulating said rod and effecting the folding of the umbrella as shown and described.

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

STEVENS PERPICH.

Witnesses:

FRANCIS J. OTT,

MARY B. O'DONNELL.