C. SARANIECKI.

FOLDING UMBRELLA.

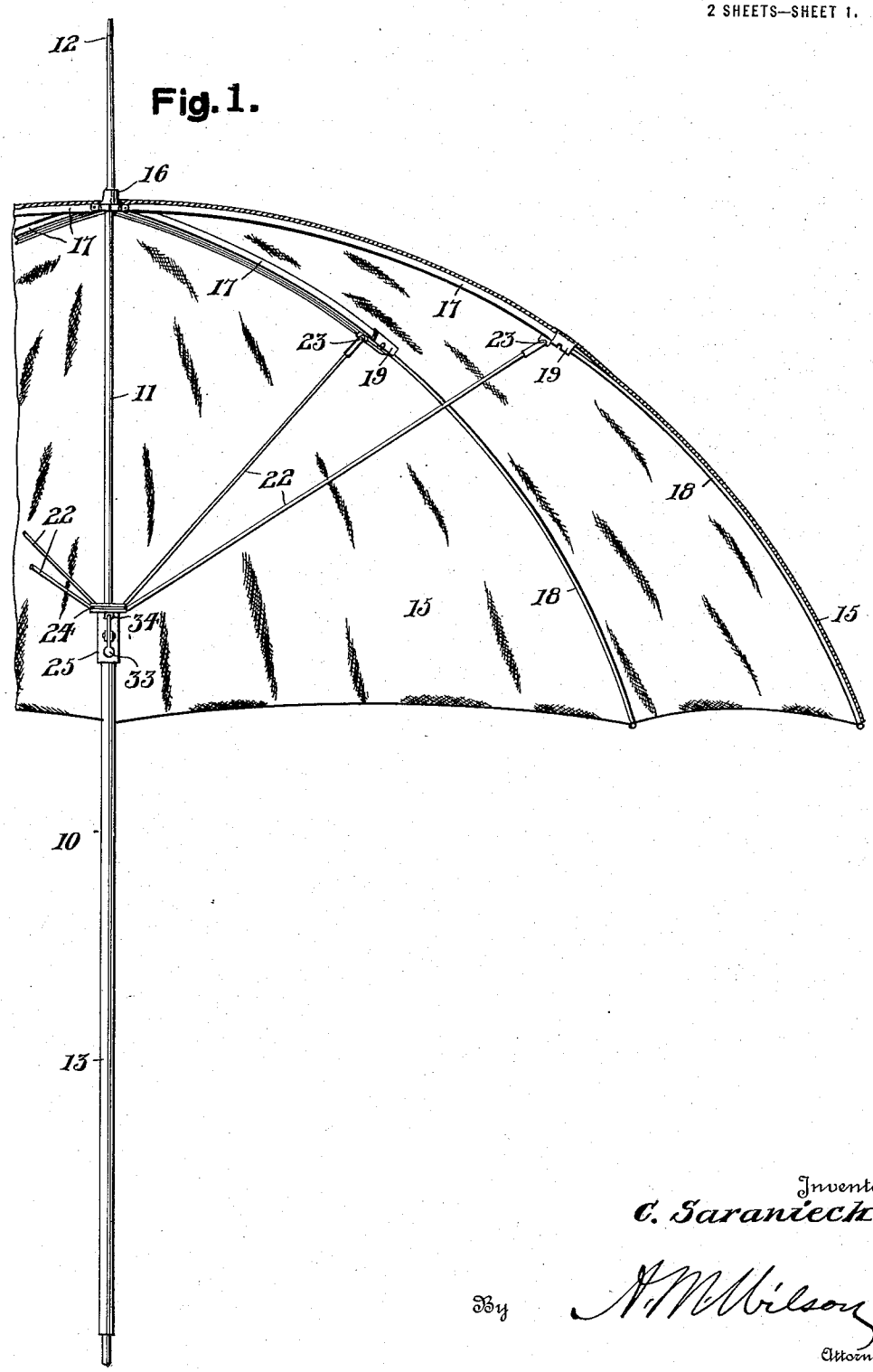
APPLICATION FILED JUNE 9, 1915.

1,168,427.

Patented Jan. 18, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

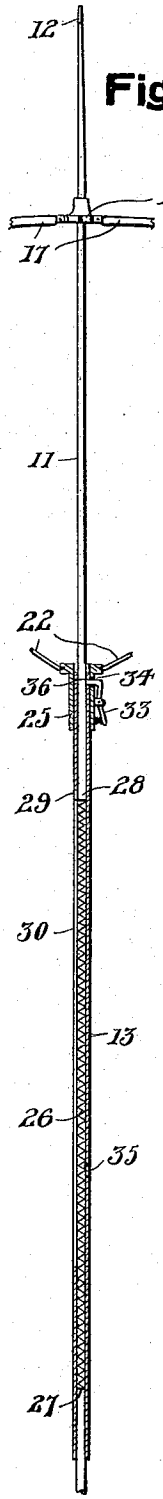



Fig. 3.

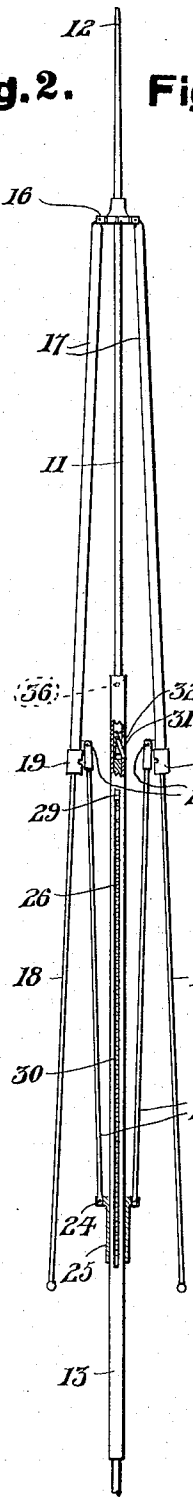



Fig. 4.

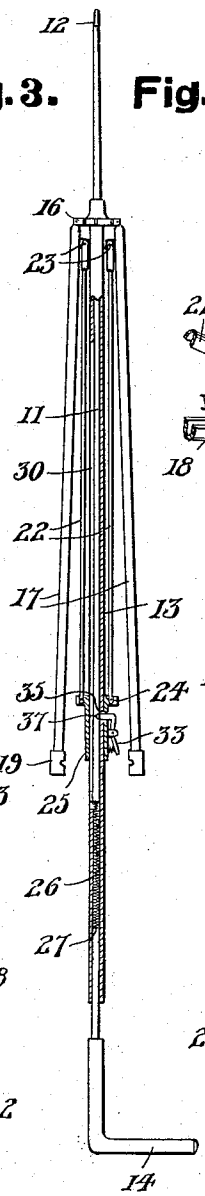



Fig. 5.

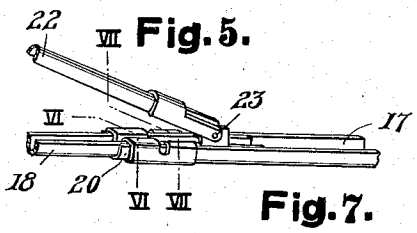



Fig. 6.

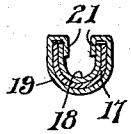



Fig. 7.

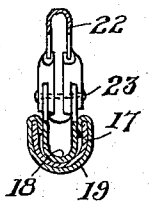
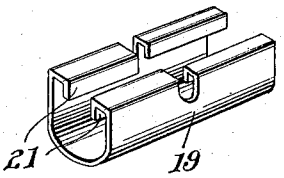



Fig. 8.

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# UNITED STATES PATENT OFFICE.

CARL SARANIECKI, OF NEW HAVEN, CONNECTICUT.

## FOLDING UMBRELLA.

1,168,427. Specification of Letters Patent. Patented Jan. 18, 1916.

Application filed June 9, 1915. Serial No. 33,083.

*To all whom it may concern:*

Be it known that I, CARL SARANIECKI, subject of the Emperor of Austria-Hungary, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification.

This invention relates to certain new and useful improvements in folding umbrellas.

The primary object of this invention is to provide an umbrella that may be readily folded into compact space convenient for carrying either in the hand or in a traveling case.

A further object of the invention is to provide an umbrella having telescoping rib and handle members adapted for folding and unfolding automatically, the umbrella being opened and closed in the usual manner.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings forming a part of this application and in which like-designating characters refer to corresponding parts throughout the several views:—Figure 1 is a radial sectional view through an umbrella provided with the present device and illustrated in its open position. Fig. 2 is a similar view of a portion of the umbrella frame parts thereof being shown in central longitudinal section. Fig. 3 is a view of an umbrella frame in its closed position, parts being removed therefrom. Fig. 4 is a similar view of the umbrella frame in its folded position being partially shown in section. Fig. 5 is a perspective view of the sliding joint employed with the rib members. Fig. 6 is a transverse sectional view taken upon line VI—VI of Fig. 5. Fig. 7 is a similar view taken upon line VII—VII of Fig. 5, and Fig. 8 is an enlarged perspective view of one of the receiving sleeves employed with the slidable ribs.

Referring more in detail to the drawings, a centrally-arranged rod 10 is provided formed of an outer solid rod 11 terminating in a ground-engaging joint 12 and a tubular rod 13 telescoping thereover and provided with a carrying handle 14 at its outer end.

A fabric-forming canopy 15 is provided of substantially the usual form being supported by a plurality of ribs hinged to a collar 16 carried by the rod member 11, each of the said ribs being formed of an inner rib portion 17 substantially U-shape in cross section and an outer rib portion 18 slidably-arranged in telescopic relation therewith. A journaled collar 19 of the form best illustrated in Fig. 8 is secured adjacent the inner end 20 of each of the outer rib sections 17 and is provided with oppositely arranged inwardly projecting flanges 21 adapted for the sliding reception of the outer rib section 18 therein and whereby the two rib sections are slidably connected together. Strengthening struts or brace ribs 22 are hingedly connected as at 23 to the inner ends of the outer rib sections 18, such points of connection being inwardly of the afore-mentioned sleeves 19, while the opposite ends of the said brace ribs 22 are hinged as at 24 to an operating ferrule 25 slidably mounted upon the outer rod member 13.

An expansion spring 26 is arranged within the rod section 13 and is positioned between the inner end 27 of the handle 14 and the inner end 28 of the outer rod section 11. A lug 29 is carried by the said inner end 28 of the outer rod section 11 and is slidably positioned within a longitudinal side slot 30 of the inner rod section 13, whereby the relative telescoping movements of the rod sections are limited by the engagement of the said lug 29 with the opposite ends of the slot 30 it being understood that the spring 26 normally retains the rod sections in their outermost or projected positions as best illustrated in Figs. 2 and 3 of the drawings.

A spring pressed normally outwardly projecting latch 31 is carried by the rod 11 and projects through a slot 32 in the rod 13 when the umbrella rod is extended and which retains the said rods in their extended positions until the latch 31 is depressed.

A spring pressed retaining catch 33 is carried by the operating ferrule 25 and projects through an opening 34 in the said ferrule and automatically engages within a perforation 35 in the rod 13 when the umbrella is in its unfolded and closed position, which arrangement maintains the umbrella so

closed until the catch 33 is released from the said perforation 35. With the umbrella in its closed position as illustrated in Fig. 3, the same may be readily opened for use whenever desired by releasing the catch 33 and sliding the ferrule 25 toward the collar 16 until the catch 13 enters a perforation 36 of the rod member 13.

From this detailed description of the device it will be seen that when the umbrella is in its unfolded closed position as best illustrated by Fig. 3 of the drawings, the catch 33 may be released and the umbrella opened to its operative position as illustrated in Figs. 1 and 2 and in the manner hereinbefore set forth, while the umbrella may be again closed by dis-engaging the catch 33 from the rod perforation 36 and sliding the ferrule outwardly and returning the elements to their positions as shown by Fig. 3. It will be seen that during the opening and closing operation, the brace ribs 22 are moved upon their hinges 23 and without any relative sliding movement between the rods 17 and 18 which latter members are held against sliding movement by a tight frictional engagement of the outer ribs 18 with the receiving sleeves 19.

When desired to fold the umbrella, the same is closed as shown in Fig. 3 and the latch 31 being depressed, the ferrule and outer rod member 13 are slidably moved together inwardly toward the afore-mentioned collar 16 and the ribs 18 are slidably moved inwardly through the sleeves 19 until the elements assume the positions illustrated in Fig. 4, when the catch 33 will engage a recess 37 in the rod 11 and thereby retain the rods in their folded positions and with the spring 26 under compression. For unfolding the umbrella, it is only necessary to withdraw the catch 33 from the recess 37 when the spring 26 will force the outer rod 13 and ferrule 25 as well as outer ribs 18 and brace rods 22 to the outward limit of their movements and at which time the lug 29 will engage the inner end of the slot 30, while the latch 31 will automatically position itself within the slot 32 of the rod 13, thus locking the rods together and retaining the umbrella in its unfolded position and ready for immediate operation.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

A folding umbrella comprising a tubular rod having a longitudinal slot therein, and further having a relatively short slot and a perforation adjacent its inner end and having a similar perforation through the side opposite the first named slot, an inner rod telescoping within the said tubular rod, a lug upon the inclosed end of the said inner rod slidably mounted in the said first-named relatively long slot, a spring-pressed latch upon the said inner rod normally positioned through the said relatively short slot when the umbrella is closed, a handle carried by the outer end of the tubular rod, an expansion spring arranged between the inner end of the said handle and the adjacent end of the said inner rod, inner ribs hinged to the said inner rod and being substantially U-shaped in cross section, guide sleeves secured adjacent the free ends of the said ribs, outer ribs slidably positioned within the said sleeves and inner ribs, an operating ferrule slidably mounted upon the said tubular rod, brace ribs hingedly connected between the said ferrule and the inner ends of the said outer ribs inwardly of the said sleeves, and a spring-pressed catch carried by the said ferrule and having a path of movement in the plane of the said perforations of the tubular rod.

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

CARL SARANIECKI.

Witnesses:

AUGUST SARANIECKI,

JOHN T. MALLEY.