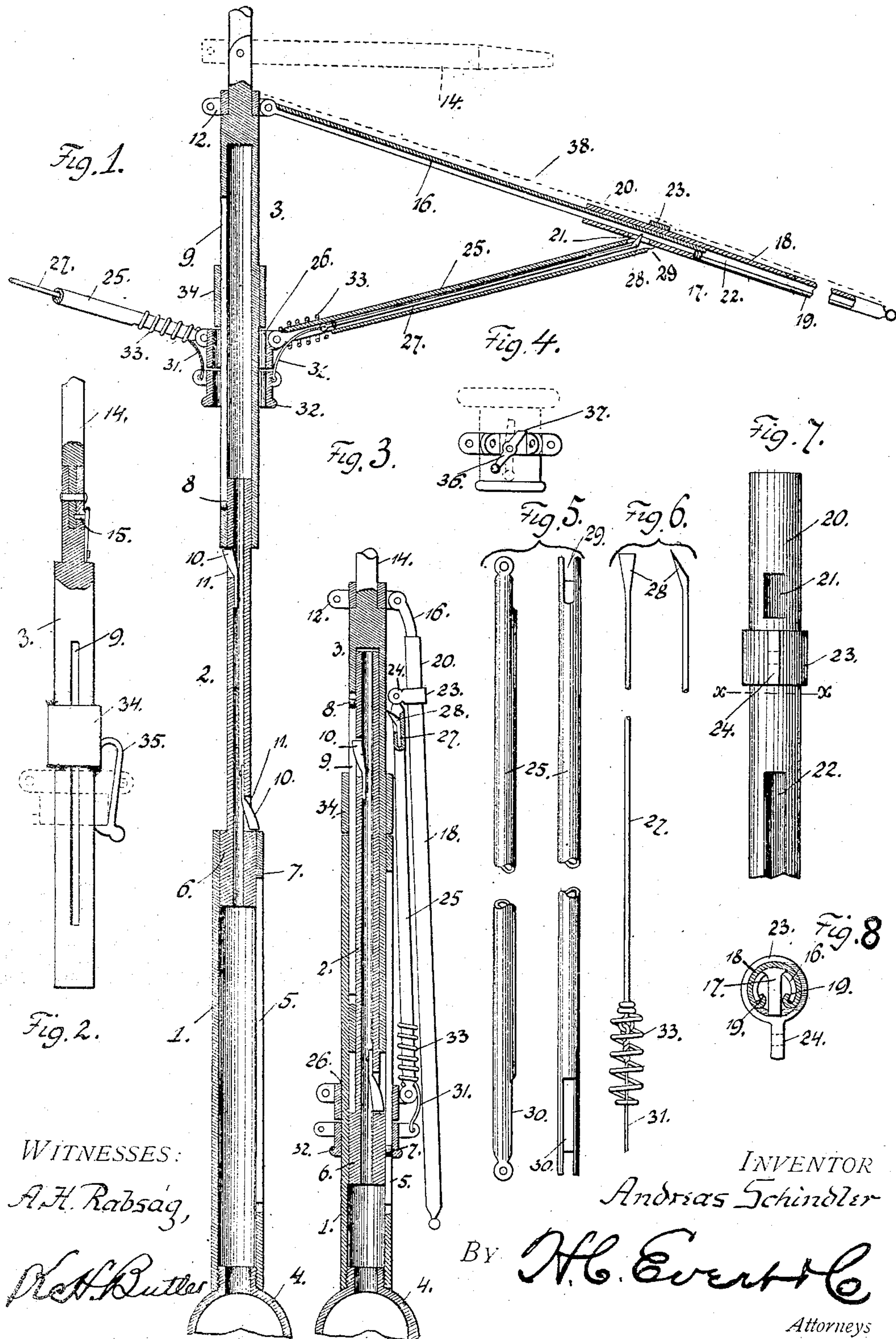


No. 863.000.

PATENTED AUG. 13, 1907.

A. SCHINDLER.
FOLDING UMBRELLA.
APPLICATION FILED APR. 16, 1907.



UNITED STATES PATENT OFFICE.

ANDREAS SCHINDLER, OF ALLEGHENY, PENNSYLVANIA.

FOLDING UMBRELLA.

No. 863,000.

Specification of Letters Patent.

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Application filed April 16, 1907. Serial No. 368,478.

To all whom it may concern:

Be it known that I, ANDREAS SCHINDLER, a subject of the Emperor of Germany, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to folding umbrellas, and the invention has for its object to provide an umbrella that can be folded into a comparatively small parcel, whereby the same can be conveniently carried in a coat pocket, valise or trunk, the umbrella being particularly designed for travelers.

Another object of this invention is to provide an umbrella having a telescopic stick and ribs, novel means being employed in connection with the umbrella for retaining the telescopic parts thereof in an open or closed position, and the umbrella raised or lowered.

The detail construction entering into my invention will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a vertical sectional view of a portion of an umbrella constructed in accordance with my invention, illustrating the umbrella in an open position, Fig. 2 is an elevation of one of the sections of the umbrella stick, partly in section, Fig. 3 is a sectional view of a portion of an umbrella in a folded position, Fig. 4 is an elevation of a sleeve used in connection with the runner of the umbrella, Fig. 5 is a fragmentary elevation and plan of one of the stretchers of the umbrella, Fig. 6 is a fragmentary plan and elevation of a locking rod used in the stretcher of the umbrella, Fig. 7 is a bottom plan of one of the telescopic sections of the ribs of the umbrella, Fig. 8 is a cross sectional view of one of the ribs of the umbrella taken on the line $x-x$ of Fig. 7.

For clearness of the illustration, I have simply illustrated one of the ribs and one of the stretchers of my improved umbrella used in connection with the stick thereof, it being understood that the plurality of ribs and stretchers commonly used in connection with an umbrella are identical in construction.

To put my invention into practice, I construct the stick of my improved umbrella of three sections, a tubular handle section 1, an intermediate tubular section 2, and a tip section 3, these sections being constructed of light and durable metal. The tubular handle section 1 is provided with a detachable handle 4, and with a longitudinally disposed slot 5. The intermediate section 2 is provided with a head 6 which

snugly fits within the section 1, the head being slidably mounted therein and retained by a pin 7 carried by said head. The upper end of the section 2 is also provided with a pin 8 protruding into a longitudinally disposed slot 9 formed in the tubular section 3, this section being adapted to telescope the section 2, and the section 1 houses both sections when the umbrella is in a folded position, as illustrated in Fig. 3 of the drawings.

To retain the sections 1, 2 and 3 of the umbrella in the form of a stick or in an extended position, I provide the tubular intermediate section 2 with spring latches 10, said latches being suitably secured in the section 2 and protruding through slots 11 formed adjacent to the ends thereof, the lower latch 10 engaging the top of the section 1 and holding the section 2 in an extended position, while the upper latch 10 engages the lower end of the section 3 and maintains it in an extended position.

The tip section 3 besides carrying a conventional form of notch 12, is provided with a hinged tip 14, said tip being held in alinement with the section 3 by a spring held pin 15 engaging the pivoted end of the tip, said pin being pulled outwardly when it is desired to fold the tip to lie close to the ribs and cover of the umbrella.

Pivotally connected to the notch 12 are the channel-shaped sections 16 of the umbrella ribs, the outer ends of said sections being provided with depending prongs 17 for retaining channel-shaped telescopic sections 18 in engagement with the sections 16. The sections 18 have their edges bent, as at 19, to engage the edges of the channel-shaped sections 16, and to retain the ribs in a closed or extended position, I form the inner end of the section 18 with a sleeve 20 having slots 21 and 22 formed therein, the slot 22 receiving the depending prongs 17 of the section 16 and preventing the section 18 from rotating upon the section 16 or becoming disengaged therefrom. The sleeve 20 adjacent to the opening 21 is provided with a band 23 having a depending pierced lug 24, to which is pivotally connected a tubular stretcher 25, the opposite end of the stretcher being pivotally connected to the runner 26 of the umbrella.

In the tubular stretcher 25 is movably mounted a locking rod 27, said rod having a bent flattened toothed end 28 protruding from the slotted end 29 of the stretcher into the opening 21 of the sleeve 20, the toothed end of said locking rod retaining the telescopic section 18 in an extended position upon the section 16. The opposite end of the locking rod 27 extends into the slotted end 30 of the stretcher 25, and connects with the telescopic rod or wire 31, which is connected to a sleeve 32 located upon the umbrella stick directly beneath the runner 26. The inner end of the

locking rod 27 is also connected to a coiled spring 33 surrounding the inner end of the stretcher 25, said spring being connected to the runner 26, employed for normally holding the toothed end of the locking rod 27 in the sleeve 20.

Upon the tip section 3 of the umbrella stick is fixed a sleeve 34 carrying a resilient depending arm 35 adapted to engage between the runner 26 and the sleeve 32, and hold the runner in an elevated position, as necessary when the umbrella is in a raised or open position. Upon one side of the sleeve 32 is pivotally mounted a lever 36 having a beveled inwardly extending end 37 adapted to engage under the runner 26, whereby the sleeve 32 can be forced away from said runner this being necessary in order to pull inwardly upon the locking rods 27 of the stretchers 25 and release the telescopic sections 18 of the ribs, whereby the umbrella can be folded.

Suitably secured to the notch 12 and the outer ends of the telescopic sections 18 of the ribs is a cover 38, the tension of the stretched cover when the umbrella is open or in a raised position being sufficient to pull the telescopic sections 18 of the ribs inwardly upon the sections 16 when the telescopic sections 18 are released by the locking rods 27 of the stretchers 25.

The manner of folding my improved umbrella is as follows: The tip section 3 is first locked upon the intermediate section 2, the locking of said section moving the lower latch 10 inwardly and allowing the sections 2 and 3 to descend into the handle section 1. The runner 26 and the sleeve 32 are made of a sufficient diameter to clear and slide upon the section 1, the inward movement of the section 3 within the section 1 being limited by the fixed sleeve 34. As the sleeve 32 is pulled downwardly, or forced downwardly, by the lever 36, and the locking rods 27 withdrawn from the telescopic sections 18, said sections will be closed or moved upwardly upon the sections 16 by the cover of the umbrella, although such movement of the telescopic sections 18 can be manually accomplished. When the runner 26 is pulled downwardly upon the section 1, the sections 16 of the ribs carrying the sections 18 are closed inwardly against the telescopic sections of the umbrella stick, as illustrated in Fig. 3 of the drawing, at which time the tip 14 can be swung downwardly to lie in close proximity to the closed umbrella.

It will be apparent from the illustration of my invention that I have devised a strong and durable umbrella

that can be easily and quickly folded to occupy a comparatively small space.

What I claim and desire to secure by Letters Patent, is:—

1. A folding umbrella consisting of a stick comprising three tubular sections, two of said sections sliding into the third section, a tip hinged to one of said sections, ribs pivotally connected to one of said sections, and each comprising a channel-shaped section and a telescopic section, a runner movably mounted upon said stick, tubular stretchers connecting said runner with the telescopic sections of said ribs, spring pressed locking rods mounted in said stretchers and adapted to engage the telescopic sections of said ribs, a sleeve mounted beneath said runner and connecting with said locking rods, a lever pivotally connected to said sleeve and adapted to engage said runner for moving said sleeve, means carried by one of said stick sections for holding said sections in extended position, means for preventing said stick sections from becoming disengaged from one another, means carried by one of said sections for holding said runner in an elevated position, and means carried by the channel section of said rib for limiting the extension of said telescopic rib section.

2. A folding umbrella consisting of a stick having three telescopic sections, two of said sections sliding into the third section, a hinged tip carried by one of said sections, a plurality of telescopic ribs pivotally connected to one of said sections, a runner carried by said stick, a plurality of tubular stretchers pivotally connected to said runner and to said ribs, spring pressed locking rods arranged in said stretchers for holding said telescopic ribs in extended position, a sleeve mounted beneath said runner and connecting with said rods, a pivoted lever carried by said sleeve for moving said sleeve away from said runner, means carried by one of said sections for holding said runner in elevated position, means carried by one of said sections for holding said stick sections in an extended position, and means for limiting the extension of said telescopic ribs.

3. A folding umbrella consisting of telescopic stick sections, a hinged tip carried by one of said sections, sectional telescopic ribs pivotally connected to one of said sections, a runner movably mounted upon said stick sections, tubular stretchers connecting said runner with said telescopic rib sections, spring pressed locking rods arranged in said stretchers and adapted to engage said telescopic rib sections, a sleeve located beneath said runner and connecting with said rod, and means carried by said sleeve and engaging said runner for lowering said sleeve and withdrawing said locking rods from engagement with said telescopic rib sections.

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

ANDREAS SCHINDLER.

Witnesses:

A. H. RABSIAS,
MAX H. SROLOVITZ.