

No. 752,723.

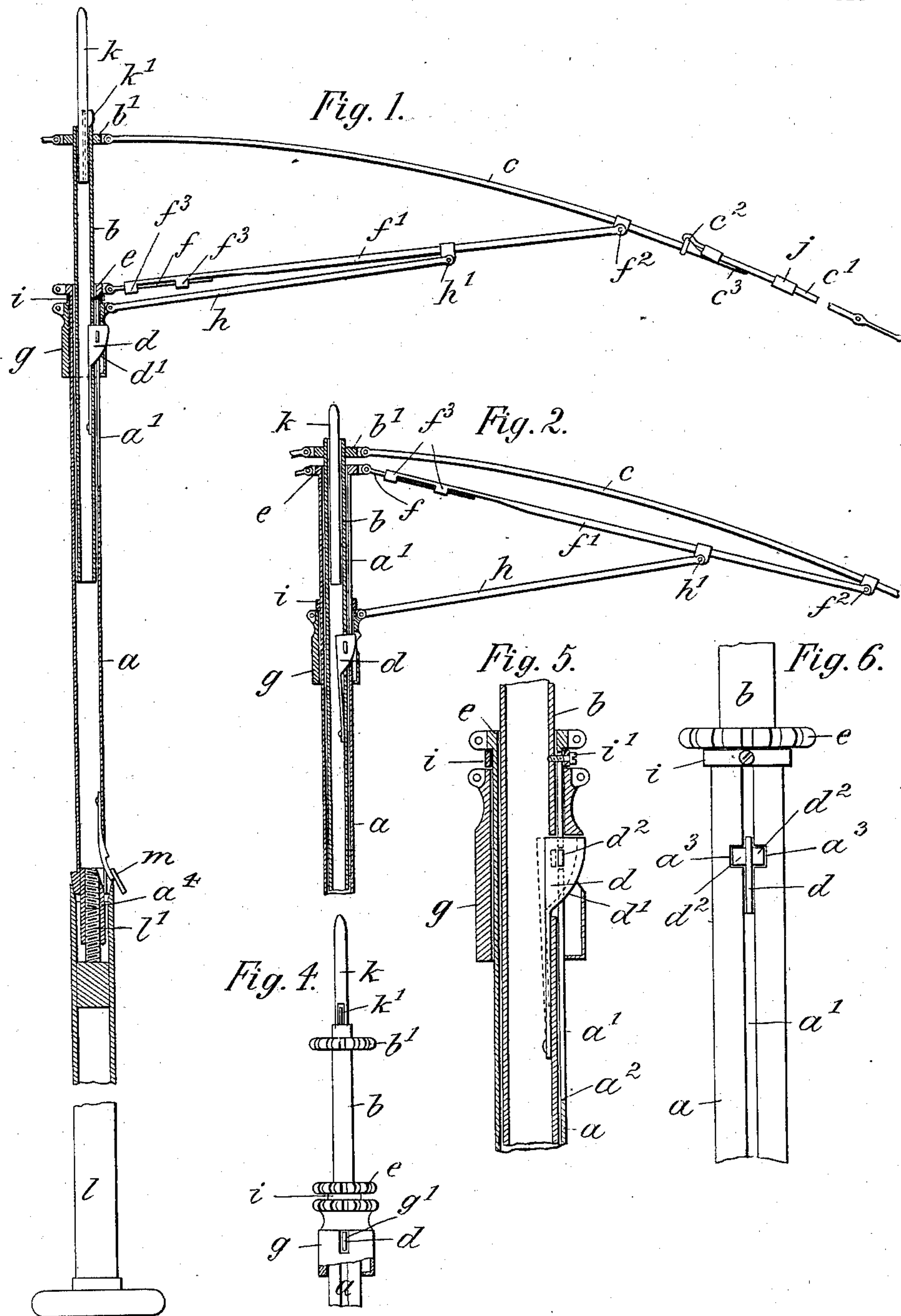
PATENTED FEB. 23, 1904.

T. SUSEMIHL.
UMBRELLA.

APPLICATION FILED DEC. 7, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
William Schulz
Frederick Unfricht

Inventor:
Theodor Susemihl
by Jacob V. Biesen Attorney.

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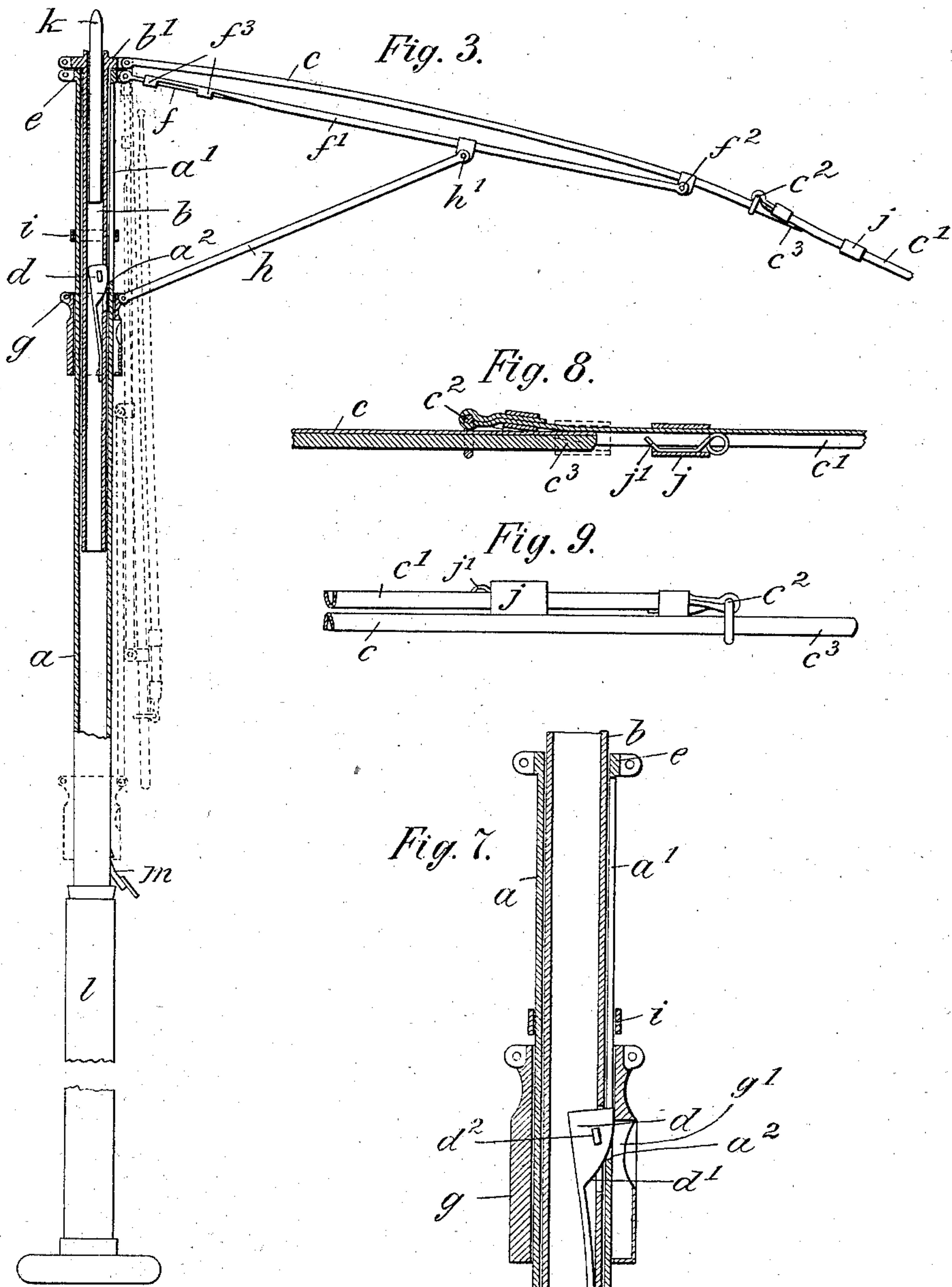
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by Paul H. Biesse Attorney.

UNITED STATES PATENT OFFICE.

THEODOR SUSEMIHL, OF NEW YORK, N. Y.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 752,723, dated February 23, 1904.

Application filed December 7, 1903. Serial No. 184,069. (No model.)

To all whom it may concern:

Be it known that I, THEODOR SUSEMIHL, a citizen of Germany, residing at New York city, Brooklyn, county of Kings, and State of New York, have invented new and useful Improvements in Umbrellas, of which the following is a specification.

This invention relates to an umbrella which is so constructed that when folded its length may be materially decreased, so that it may be readily transported either in a satchel or in the form of a short length of hand-baggage.

In the accompanying drawings, Figure 1 is a sectional elevation of part of the umbrella-frame, showing it open; Fig. 2, a similar view showing the frame partly closed; Fig. 3, a similar view showing the frame still further closed; Fig. 4, a side view, partly in section, of the upper end of the umbrella-stick; Fig. 5, a detail longitudinal section of the upper end of the stick and adjoining parts; Fig. 6, a side view of Fig. 5 with the runner omitted; Fig. 7, a view similar to Fig. 5, showing the parts in different position; Fig. 8, a section through the joint of one of the ribs, and Fig. 9 a side view thereof showing the rib folded.

The letter *a* represents the tubular umbrella-stick having an upper telescoped slidable section *b*. At its top the section *b* carries a crown *b'*, to which the umbrella-ribs *c* are pivoted. The lower end of upper stick-section *b* is provided with an outwardly-projecting spring-catch *d*, which is free to move within a longitudinal slot *a'* of stick *a*. The catch *d* has a lower curved edge *d'*, which is adapted to engage the lower edge *a''* of slot *a'*. The slot *a'* has near its upper end a transverse enlargement *a'''*, adapted to be engaged by a cross-piece *d''* of catch *d*. In this way the catch normally locks the upper stick-section *b* to the stick *a* when the upper stick-section is in its uppermost position. The upper end of stick *a* carries a crown *e*, to which are pivoted the inner sections *f* of extensible stretchers, the outer sections *f'* of which are pivoted to the ribs *c* at *f''*. The sections *f f'* overlap at their adjoining ends and are slidably connected to one another by means of perforated lugs or bearings *f'''*, integral with sections *f'* and embracing sections *f*.

To a runner *g*, movable upon stick *a*, are pivoted the inner ends of braces *h*, the outer ends of which are pivoted at *h'* to the outer sections *f'* of the stretchers *f f'*. The runner *g* has a longitudinal slot *g'* in alinement with the slot *a'* of stick *a*, so that the catch *d* will be projected outwardly through the stick and into engagement with the runner. Between crown *e* and runner *g* the stick *a* is surrounded by a collar *i*, which is secured to upper stick-section *b* by a screw *i'*, passing through slot *a'*, Fig. 5.

Each of the ribs *c* is made foldable, being provided with an outer extension *c'*. The sections *c c'* are hinged to one another at *c''* and are adapted to overlap. Upon the section *c'* slides a tubular keeper *j*, which is adapted to be projected over the outer end *c'''* of section *c* and to thus interlock the parts. (Dotted lines in Fig. 8.) When the keepers are pulled down to liberate ends *c'''*, the sections *c'*, together with the umbrella-covering, (not shown,) may be folded upon sections *c*, Fig. 9, so as to correspondingly diminish the length of the umbrella. The keeper is locked in its open position by means of a suitable spring *j'*.

The upper stick-section *b* telescopes a slidable tip *k*, which may be drawn partly into the upper stick-section when the umbrella is closed, Figs. 2 and 3, or projected outward when the umbrella is opened, Fig. 1. In this latter position the tip is held by a spring-catch *k'*, adapted to engage the upper edge of upper stick-section *b*.

The handle *l* is removably connected to stick *a* by a suitable joint, the drawing showing the handle to be provided with a screw *l'*, tapped into a corresponding threaded socket *a''* of stick *a*. Above the socket a spring-catch *m* on stick *a* is adapted to engage runner *g* and to thus lock the umbrella in its closed position.

In its opened position, Fig. 1, the upper stick-section *b* projects out of stick *a* to its maximum extent and is locked thereto by engagement of the catch *d* with the enlargement *a'''* of slot *a'*. To close the umbrella, the catch *d* is pressed slightly inward, so that its cross-piece *d''* is thrown out of engagement with enlargement *a'''*, (dotted lines in Fig. 5,) the catch,

however, remaining in engagement with runner *g*. The runner is now pulled down, taking the upper stick-section *b* with it, so as to cause the descent of the crown *b'* upon the crown *e* and draw the ribs *c* toward the stretchers *f f'*, Fig. 2, during which movement the stretchers *f f'* will be first contracted and then expanded. The further descent of the runner will push the catch *d* against the lower edge *a'* of slot *a'*, so that when this point is reached the catch is swung inward and out of engagement with the runner, Fig. 7. The upper stick-section being thus carried into its terminal bottom position will remain at rest, and the further descent of the runner will cause the ribs *c* to be folded against stick *a* by means of the braces *h*, which act upon the ribs through the intermediate extensible stretchers *f f'*.

The umbrella is held in its closed position by the engagement of the runner with the catch *m*.

To open the umbrella, the catch *m* is depressed and the runner is moved upward to take the upper stick-section *b* along by means of the collar *i* and to thus push the upper stick-section upward and into its terminal top position. (Indicated in Fig. 1.)

It will be seen that as thus far described the umbrella can be opened and closed by substantially the usual manipulations. If it is desired to fold the covering of the umbrella upon itself, all the keepers *j* are first drawn

down to release the extensions *c'* from ribs *c*, and after the umbrella has been closed the extensions *c'* are swung upon the ribs *c*. (Dotted lines, Fig. 3.) After the umbrella has thus been folded and the ribs turned over the tip *k* is pushed into the upper stick-section *b* and the handle *l* is unscrewed. The length of the umbrella is thus materially reduced, so that the umbrella may be readily packed into handbags, &c., for transportation.

It is evident that the invention may also be applied to parasols.

What I claim is—

In an umbrella, the combination of a tubular slotted stick with a telescoped upper stick-section having a collar, a spring-catch pivoted to the upper stick-section and adapted to engage the stick-slot, means for locking the catch to the stick, foldable ribs pivoted to the upper stick-section, a crown secured to the stick, extensible stretchers composed of slidable overlapping sections that connect the crown to the ribs, a slotted runner adapted to engage the catch and collar, and braces that connect the runner to the outer sections of the extensible stretcher, substantially as specified.

Signed by me, at New York city, (Manhattan,) New York, this 5th day of December, 1903.

THEODOR SUSEMIHL.

Witnesses:

WILLIAM SCHULZ,
RICHARD LUDWIG SUSEMIHL.