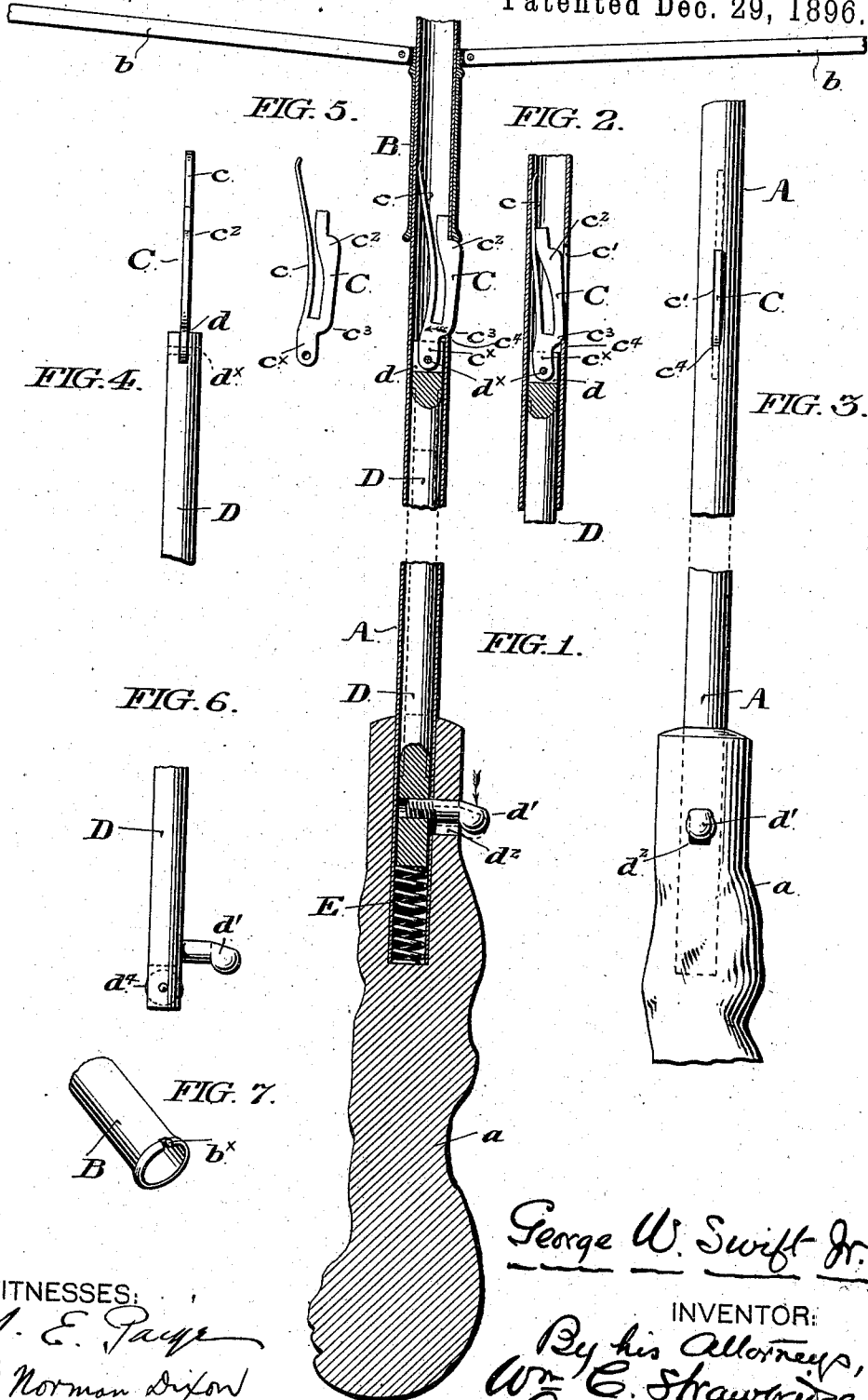


G. W. SWIFT, Jr.
UMBRELLA OR PARASOL.

No. 574,080.

Patented Dec. 29, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. SWIFT, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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UMBRELLA OR PARASOL.

SPECIFICATION forming part of Letters Patent No. 574,080, dated December 29, 1896.

Application filed May 15, 1896. Serial No. 591,603. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SWIFT, JR., a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Umbrellas or Parasols, of which the following is a specification:—

My invention relates in particular to runner retainers, and has for its object a runner retainer so constructed, and so applied to the stick of the umbrella or parasol, as to be susceptible of operation to release the runner, from the lower end or handle portion of the stick.

My invention is, moreover, peculiarly applicable in connection with self-closing umbrellas of any known construction, but preferably of that character in which the stretchers are united by adjacent pairs to form, when the bows are extended, elliptical springs.

In the accompanying drawing I have illustrated and herein I describe an umbrella embodying a preferred form of my improvements, the particular subject-matter which I claim as novel being hereinafter definitely specified.

In the accompanying drawing,

Figure 1 is a central, longitudinal, sectional, side elevation through an umbrella stick embodying my improvements, the parts to which the invention peculiarly appertains being represented in the position which they normally occupy when the umbrella is either opened or closed.

Figure 2 is a fragmentary view similar in character to Figure 1, representative of the position which the runner retainer occupies when retracted.

Figure 3 is a side elevational view of a portion of the stick represented in Figure 1, viewed at right angles to the plane of section of said Figure 1 and from the side occupied by the runner retainer and thumb lug.

Figure 4 is a side elevational view of the upper portion of the retainer-operating rod, the retainer being shown in front edge view.

Figure 5 is a side elevational view of the runner retainer removed from the stick and operating rod.

Figure 6 is a fragmentary side elevational view of the lower end portion of the retainer-operating rod.

Figure 7 is a fragmentary perspective detail of a runner which I find it convenient to employ, and which preferably embodies a runner notch b^x for engagement with the shoulder of the runner retainer when the umbrella is open.

Similar letters of reference indicate corresponding parts.

In the drawing,

A represents so much of the stick of an umbrella as is necessary to an understanding of my invention.

The stick is tubular, or hollow in any preferred cross-section, and preferably made of metal. At its lower extremity it terminates in or is provided with a handle a of any preferred character.

Upon the cylindric exterior of the stick a runner B, of any preferred character, is mounted in the usual manner. If desired, the runner may embody a notch b^x , Figure 7, to engage the shoulder of the retainer and obviate all rotary movement of the runner.

b are the stretchers or spreaders which control the ribs and are of the usual character.

C is a runner retainer of a well-known type, preferably stamped out of a single piece of metal so as to embody a spring c and also a terminal web c^x .

The body portion of the retainer proper, which is designated by the letter C, and which is adapted under the thrust of its spring to be projected through the retainer slot c' in the umbrella stick, is formed with the usual runner-retaining shoulder c^2 , and, in adjacency to its web c^x , with an inclined surface which I term the "retracting incline" c^3 , and which is adapted to bear against an abutment c^4 , formed at the end of the retainer slot.

D is what I term the retainer-operating rod, the same being a rod of metal or other preferred material inserted, and preferably fitting snugly, within the hollow interior of the umbrella stick,—at its upper end provided with a slot d , or other bearing, within or with respect to which is entered or otherwise applied the terminal web c^x of the retainer,

and with which said web is connected, conveniently by being pivoted by means of the pivot pin d^x .

At its lower end this operating rod is provided with a thumb-lug d' , projecting laterally and conveniently through a longitudinally-extending lug slot d^2 in the stick and handle portion thereof.

It may, if desired, be also provided with an anti-friction roller d^4 , to ease its longitudinal movement.

E is a spring interposed between the end of the operating rod and an abutment formed by or within the handle or at the end portion of the stick,—which serves to normally maintain the operating rod in the position represented in Figure 1, and the retainer, in consequence, projected through the retainer slot, but which is adapted in the operation of the device for the retraction of the retainer to be compressed to permit of the appropriate longitudinal movement of the rod.

The operation will be easily understood:—

Assuming the parts in the position represented in Figure 1, and the retainer projected under the thrust of its spring, c ,—it is obvious that a movement of the thumb-lug in the direction of the arrow applied to it in said Figure 1, will exert such traction upon the operating rod toward the handle as will cause the travel of the retracting incline c^3 of the retainer against the abutment c^4 formed by the end of the retainer slot c' in the stick, with the result of occasioning the deflection or retraction of the retainer into the position represented in Figure 2 and wholly within

the stick, to permit of the travel of the runner necessary for the closing of the umbrella.

Upon the release of the thumb-lug the rod spring E, coöperating with the retainer spring c , will automatically return the parts to their former position and occasion the projection of the retainer.

Having thus described my invention, I claim:—

In an umbrella, the combination of a hollow or tubular stick embodying a slot for a spring-provided runner retainer, the lower end of which slot forms an abutment for said retainer,—a runner upon said stick,—a runner retainer embodying a spring and provided with a retracting incline adapted to co-act with the abutment of the slot in the projection and retraction of the retainer,—a longitudinally-movable retainer-operating rod fitted within the interior of the stick, to which the retainer is pivotally connected,—means located in the region of the handle of the stick applied to said rod for occasioning its downward or inward longitudinal movement to effect the retraction of the retainer,—and a spring for occasioning its movement in the opposite direction, to coöperate with the retainer spring in effecting the projection of the retainer,—substantially as set forth.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 14th day of May, A. D. 1896.

GEORGE W. SWIFT, JR.

In presence of—

J. BONSALE TAYLOR,
F. NORMAN DIXON.