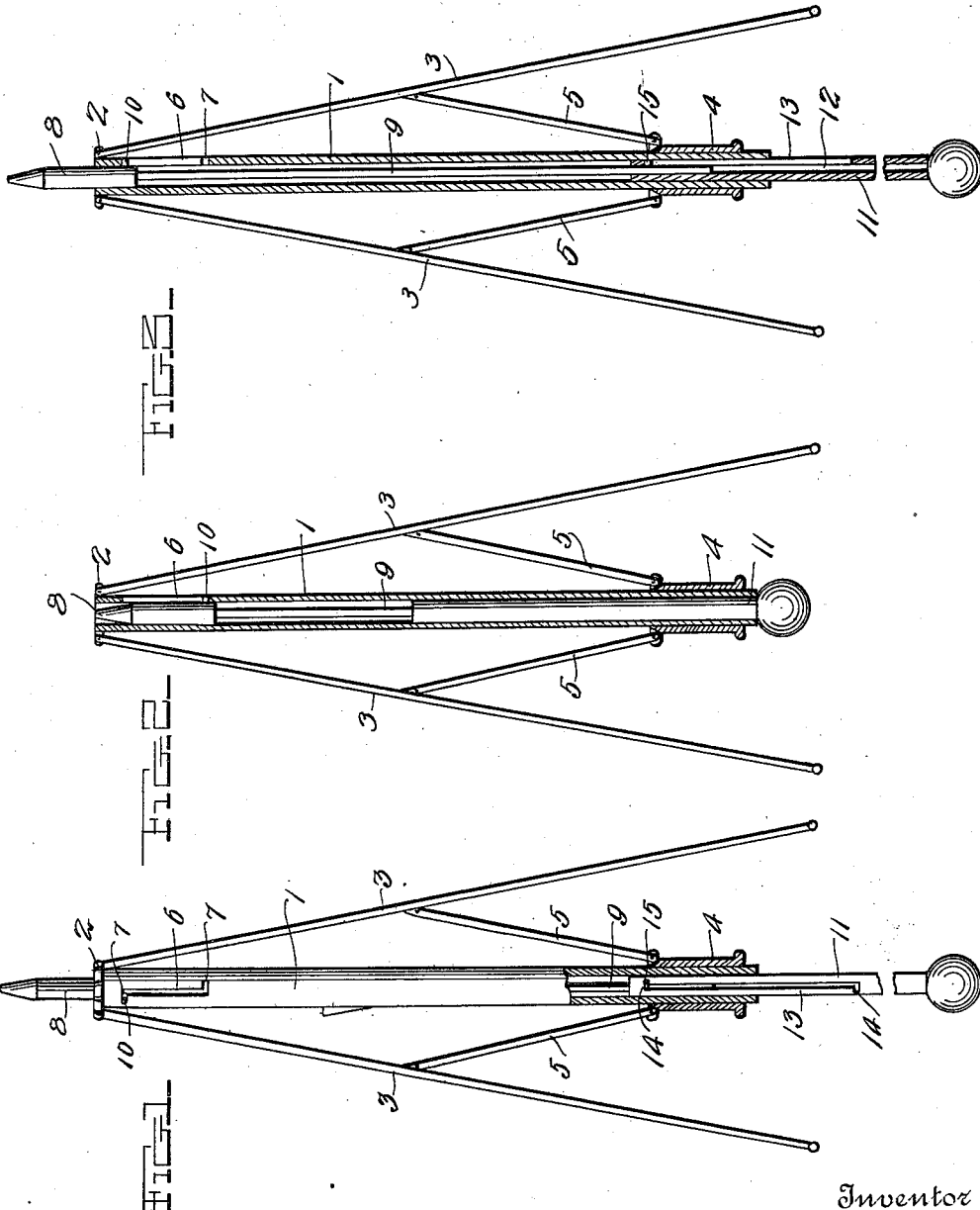


C. STORM.
 COLLAPSIBLE UMBRELLA.
 APPLICATION FILED JUNE 15, 1911.

1,018,941.

Patented Feb. 27, 1912.



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UNITED STATES PATENT OFFICE.

CARL STORM, OF ANN ARBOR, MICHIGAN.

COLLAPSIBLE UMBRELLA.

1,018,941.

Specification of Letters Patent.

Patented Feb. 27, 1912.

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To all whom it may concern:

Be it known that I, CARL STORM, a citizen of the United States, residing at Ann Arbor, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Collapsible Umbrellas; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in collapsible umbrellas.

One object of the invention is to provide an umbrella having a rod formed in a plurality of telescopically engaged sections, and having means for fastening the same in extended or retracted positions.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings:—Figure 1 is a side view of an umbrella constructed in accordance with my invention, showing the same extended; Fig. 2 is a longitudinal sectional view through the main tubular section of the rod illustrating more clearly the arrangement of the tip and handle and showing the parts retracted; Fig. 3 is a central longitudinal sectional view of the rod showing the parts extended.

In the embodiment of the invention I provide a rod comprising a main tubular section 1 on the outer end of which is secured a rib attaching ring 2 to which the outer ends of the ribs 3 are pivotally attached. Slidably mounted on the tube is a runner 4 to which the inner ends of the braces 5 are secured, the outer ends of the braces being connected to the ribs in the usual manner. The ribs 3 are approximately the same length as the main tubular section 1 of the handle. In the tubular section 1, at its outer end is formed a longitudinal slot 6 the ends of which terminate in short right angular locking slots or notches 7 which extend in opposite directions as shown. Slidably mounted in the outer end of the tube is a tip 8, said tip having a reduced integrally formed stem 9 which extends through the tube 1 as shown. In one side of the inner end of the tip 8 is arranged a locking

pin 10 which is slidably engaged with the slot 6 and is adapted to be engaged with the right angular slots or notches 7 to lock the tip in extended or retracted positions as will be hereinafter more fully described.

Slidably mounted in the inner end of the tube 1 is a handle member 11 in the inner end of which is formed a longitudinally disposed socket 12 with which is slidably engaged the inner end of the stem 9. In one side of the inner end of the handle member 11 is formed a longitudinally disposed slot 13 the ends of which terminate in short right angular locking slots or notches 14. In the engaging end of the stem 9 is arranged a locking pin 15 which is slidably engaged with the slot 13 and is adapted to be engaged with the notches 14 whereby the handle is locked in an extended or retracted position. The notches 7 and 14 are preferably slightly tapered whereby the pins 10 and 15 have a wedged or frictional engagement with the slots.

In Fig. 1 the parts are shown in an extended position and in order to reduce or retract the same the handle is first turned to the right until the pin 10 is disengaged from the outer notch 7 of the slot 6, after which the handle is pulled outwardly thus drawing the tip into the outer end of the tubular section 1 of the rod. After the tip is thus retracted the handle is turned farther to the right, thus engaging the pin 10 with the inner notch of the slot 7 and thereby locking the tip in its retracted position. After the tip has been thus retracted and locked the handle is pushed back into the tubular member 1 of the rod until the pin 15 on the stem 9 is at the end of the slot 13 whereupon the handle is turned until said pin 15 engages the notch 14 in the outer end of the slot 13 thus locking the handle in a retracted position. In order to extend the rod the above described operations are reversed.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined in the appended claim.

Having thus described my invention what I claim is:—

In an umbrella of the character described a rod comprising a main tubular section
5 having therein a locking slot, a tip slidably mounted in the outer end of said tubular section, a locking pin arranged in said tip and adapted to be engaged with the locking slot in said tubular section whereby said
10 tip is locked in a projected or retracted position, a longitudinally extending stem formed on said tip and projecting through said tubular section, a handle member slidably mounted in the inner end of said tubular section, said member having formed

in its inner end a longitudinal socket and a locking slot, said socket being adapted to receive the end of the extension on said tip, and a locking pin arranged in said stem and adapted to engage said slot whereby the
20 handle is locked in projected or retracted positions.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CARL STORM.

Witnesses:

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EMMA BOEPPLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."