

(No Model.)

C. J. FELL.
UMBRELLA RUNNER.

No. 486,209.

Patented Nov. 15, 1892.

Fig. 1.

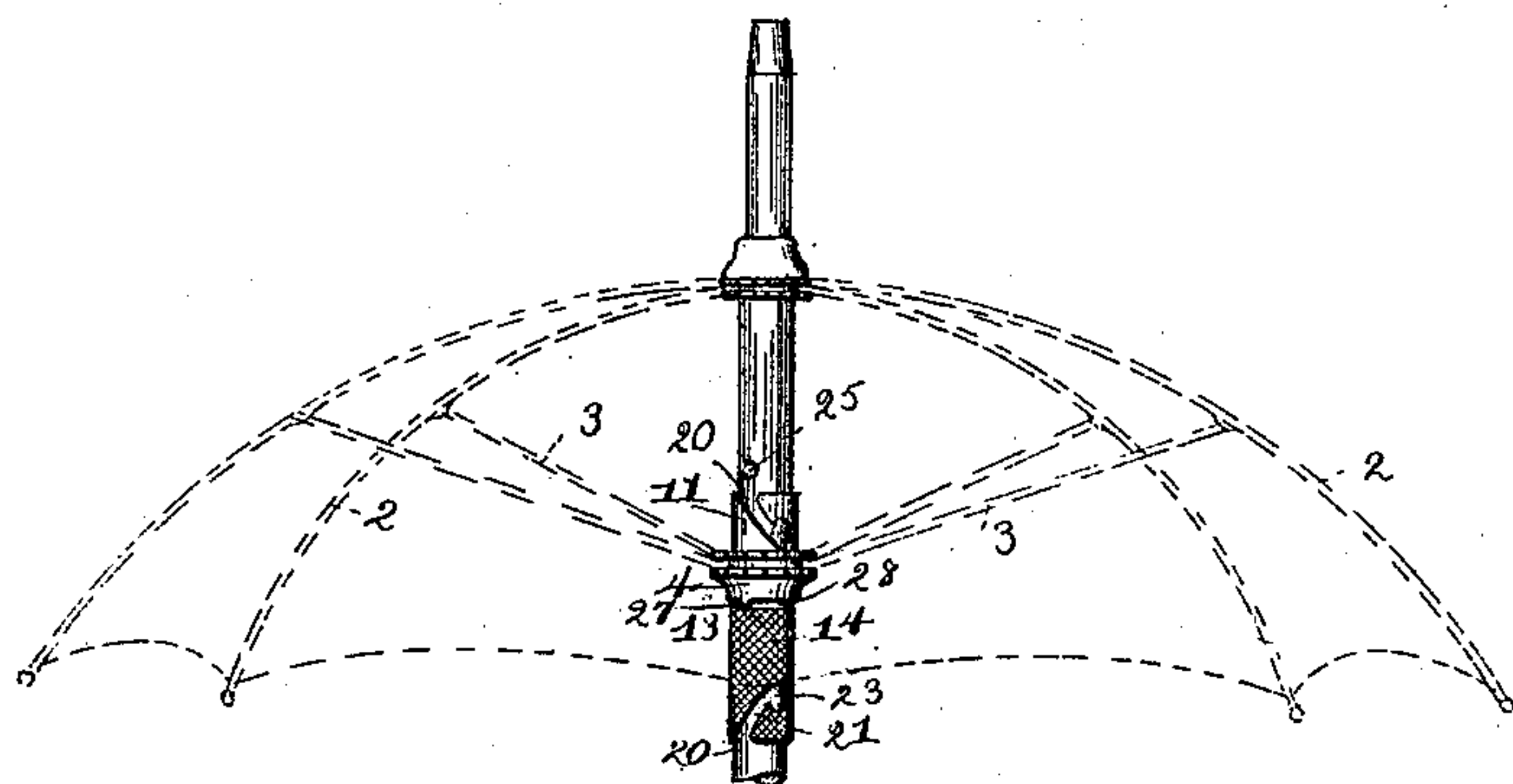


Fig. 2.

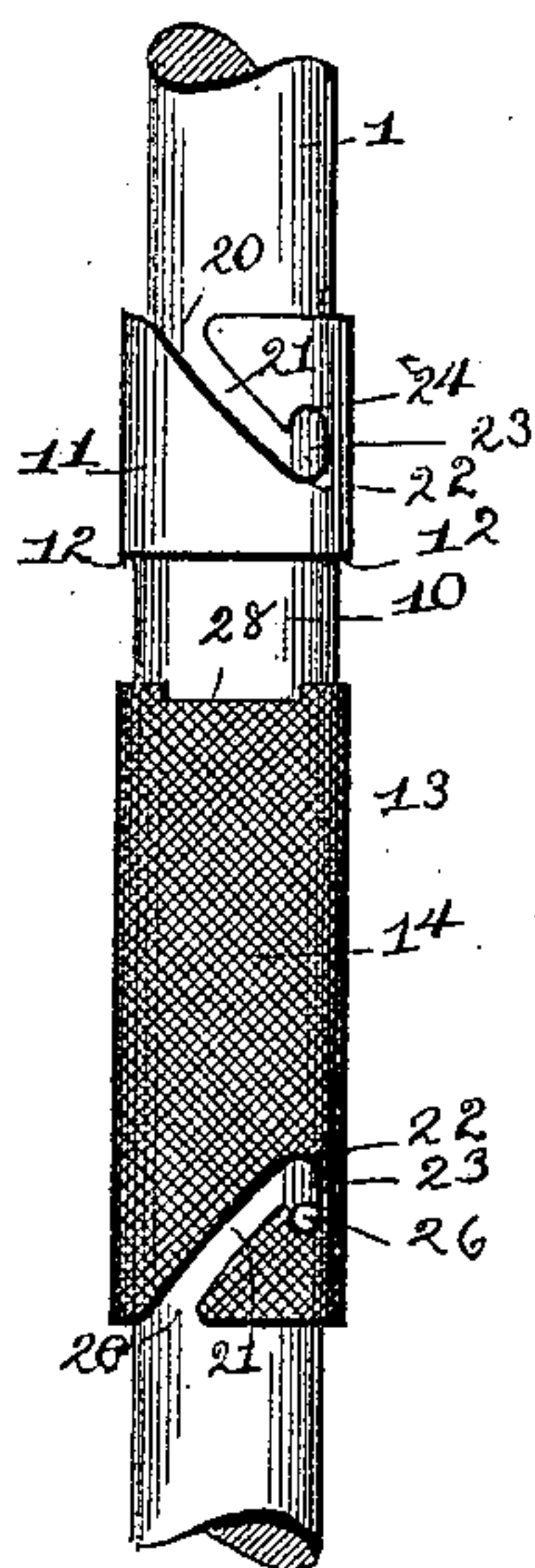
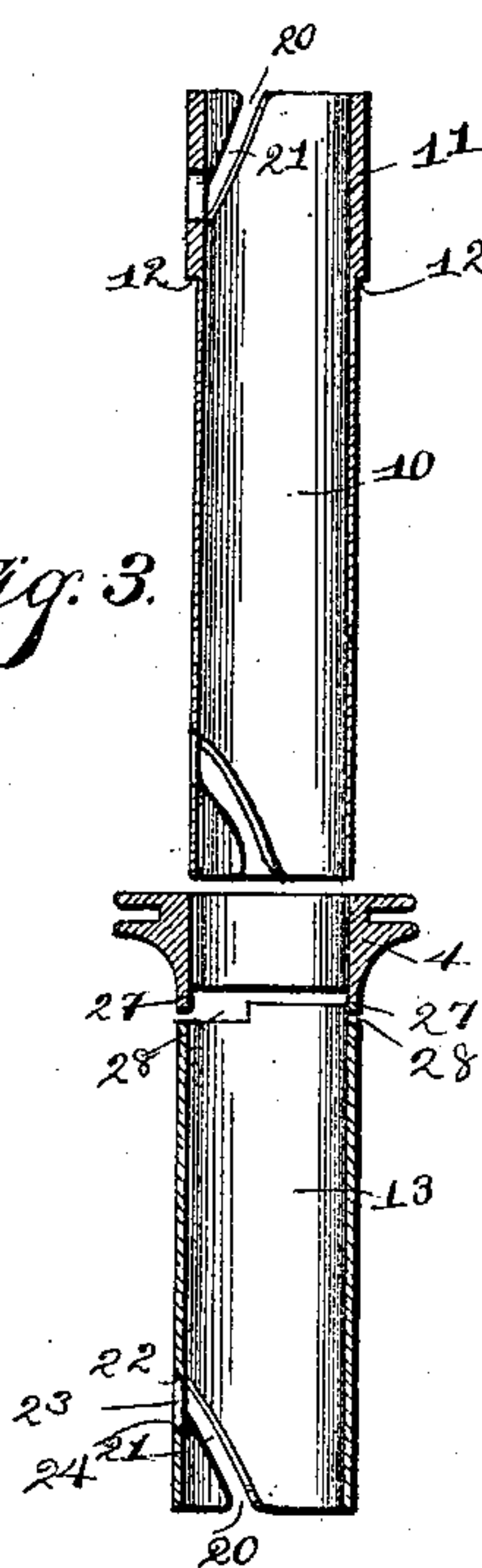


Fig. 3.



Witnesses

Chas. A. Ford.

Inventor

C. J. Fell.

By his Attorneys,

L. C. Collamer.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES J. FELL, OF WILKES-BARRÉ, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO AUGUST J. SCHULER, OF SAME PLACE.

UMBRELLA-RUNNER.

SPECIFICATION forming part of Letters Patent No. 486,209, dated November 15, 1892.

Application filed November 27, 1891. Serial No. 413,292. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. FELL, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Umbrella-Runner, of which the following is a specification.

This invention relates to umbrellas and parasols, and more especially to that portion thereof known as the "runner;" and the object of the same is to produce certain improvements in the devices for locking the runner automatically to the stick when the umbrella is either opened or closed.

To this end the invention consists in a runner each of whose ends is provided with an oblique slot terminating in an acute-angled extension, the runner being journaled through the rib-ring and the latter having tongues engaging recesses in the runner for limiting its oscillatory movement. This construction is more fully described below, specifically pointed out in the claim, and illustrated on the accompanying sheet of drawings, wherein—

Figure 1 represents an umbrella-stick provided with my improved runner, showing the latter as just about to move into engagement with the upper pin. Fig. 2 is an enlarged elevation of the runner engaged with the lower pin and mounted on a small piece of the stick, the ring being omitted. Fig. 3 is a central vertical section of the two members of the runner and the ring, all slightly separated.

In umbrellas now on the market the sleeve or runner which supports the ring wherein the stretchers are pivoted is usually slotted longitudinally, and the stick is also slotted longitudinally at proper points, wire springs being seated in the slots in the stick and facing upward near the upper and downward near the lower ends of the stick. When the runner is moved, its slot is supposed to pass over these springs, the latter being depressed until the slots in the runner and stick register, when the spring will fly out and lock the runner in place; but the well-known objections exist that the slot in the runner does not always register with that in the stick, owing to the slight twisting motion which the runner may have if the stretchers are not tightly pivoted in the ring, and also that the

springs sometimes become displaced from the slots and the latter always weaken the stick considerably, especially if it be of a wood having a tendency to split longitudinally. In order to overcome these objections, runners have heretofore been made which were journaled so as to turn axially within the rings, the ends of each runner being provided with a bayonet-slot, and pins were seated in the stick at proper points. When the runner was moved to either extremity of its movement, the mouth of the bayonet-slot was guided or directed astride the pin and then the runner was turned manually to move the pin into the offset of the slot. The present invention contemplates the use of a device of this same approximate construction, with the exception, however, that instead of a bayonet-slot I use an oblique slot and instead of an offset to the slot which stands at right angles to the axis of the runner I use an acute-angled extension or offset and rounded on its inner face, the resulting advantage being that the pin is automatically thrown into this offset by the turning of the runner as it is pushed.

My device also possesses certain specific details which are described below.

Referring to the said drawings, 1 is the stick.

2 are the ribs.

3 are the stretchers, and 4 is the ring to which the stretchers are pivoted in the usual manner.

The runner is made in two members or sleeves. 10 is the upper member, having a central bore of a size to slide on the stick and having its upper end enlarged, as at 11, so as to form a shoulder 12, up against which the ring is drawn by the stretchers. 13 is the lower member, having an internal bore of a size to fit closely over the reduced body of the upper member and milled or roughened, as at 14, on its exterior. This member is passed over the upper member and soldered, brazed, or otherwise secured thereon, and the length of the lower member is such that when the lower ends of the two members are flush the upper end of the lower member will come up against the lower face of the ring and the latter will therefore be nicely journaled on the runner. In the ends of the runner are

formed oblique slots inclining in opposite directions to each other, and each slot comprises a mouth 20, an inclined body 21, a rounded inner end 22, and an acute-angled offset or extension 23, whose extremity 24 projects toward the end of the runner.

In the stick at proper points are located the upper and lower pins 25 and 26, the pins being of a size to fit loosely in the bodies 21 of the slots. From the ring 4 tongues 27, projecting downwardly, engage recesses 28 at opposite sides of the upper end of the lower member 13, and thus the runner is limited in its axial movement or oscillation within the ring.

The mouths 20 of the slots in the ends of the runner are in alignment with each other along the stick, and when between the pins are in alignment with the said pins. The said pins are also placed in alignment with each other on the stick and the lower part of the interior tube is slotted to conform to the slot in the outer tube.

In use when it is desired to raise this umbrella the stick is held in one hand, while the other hand grasps the milled portion 14 of the sleeve. The latter is drawn slightly down and then turned to the right, and this movement causes the inclined body 21 of the slot to travel upward on the lower pin 26 until the pin passes out the mouth 20 of the slot and disengages the runner. At this time the tongues 27 stand at the left ends of the recesses 28 and prevent the runner being turned any farther. The runner is then moved up on the stick, carrying the ring and the stretchers with it, and when the upper pin 25 is reached the mouth 20 of the upper slot will be exactly in proper position to pass over the pin, and a continued upward movement of the runner will move the body 21 of this slot astride the pin and turn the entire runner in the hand, the pin passing to the bottom of the slot around the rounded inner end 22 thereof and into the offset 23, as will be clear. A reversal of the operation lowers the umbrella and locks it folded. Thus it will be seen that the usual movements of the runner cause it to automatically engage the pins by reason of the incline of the slot-bodies, and the rounded inner ends of the slots cause them under the force of their longitudinal movements to automatically pass their offsets onto the pin. When so engaged, no accidental blow or jar can disengage the pin laterally, since the pin is held in the extremity of the offset which projects toward the adjacent end of the runner. Each of such ends is preferably beveled interiorly, so that it will not scratch the stick, and the latter is of course

only very slightly weakened by the insertion of the two pins. The size, shape, and proportion of the parts are matters of no moment with respect to the invention itself.

The slots 20 in the opposite ends of the runner, as has already been set forth, extend in reverse diagonal directions on inclined planes and terminate in locking-recesses 23, which are in alignment with each other and have a limiting shoulder or corner 23^x, beyond which the longest inclined wall of each of said slots extends, and thereby causes the pin on opposite portions of the stick to entirely enter the said recesses in such manner that the tendency for the runner to spring back from its locking position will cause the said pin to be directed behind the shoulder 23^x in either position—viz., when the runner is raised or lowered to engage the upper or the lower stud.

What is claimed as new is—

An umbrella-stick having pins thereon on the upper and lower portions thereof in alignment with each other, combined with a runner comprising an upper member having a central bore of a size to slide on the stick and its upper end increased in thickness to form a shoulder 12, against which the ring is drawn by the stretchers, a lower member 13, having an internal bore of a size to fit closely over the reduced body of the upper member and milled or roughened on its exterior, the said lower member being secured upon the lower portion of the upper member in such manner as to form a space between the upper end of the lower member and the shoulder 12 of the upper member and both of said members at opposite ends of the same being formed with oblique slots extending in reverse diagonal directions to each other, said slots terminating in locking-recesses 23, which are in vertical alignment with each other and provided with a limiting shoulder or corner 23^x, beyond which the longest inclined wall of each of said slots extends, thereby causing the pin engaging said slots at either end to be removably locked behind said shoulders or corners, and a stretcher-ring 4, journaled on the runner-tube between the upper end of the lower member and the shoulder of the upper member and having tongues 27 projecting downwardly to engage recesses 28, situated at opposite sides of the upper end of said lower member, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES J. FELL.

Witnesses:

WM. J. TREMBATH,
ROBT. H. MCKUNE.