

(No Model.)

J. SIMMONS.
UMBRELLA RUNNER.

No. 558,530.

Patented Apr. 21, 1896.

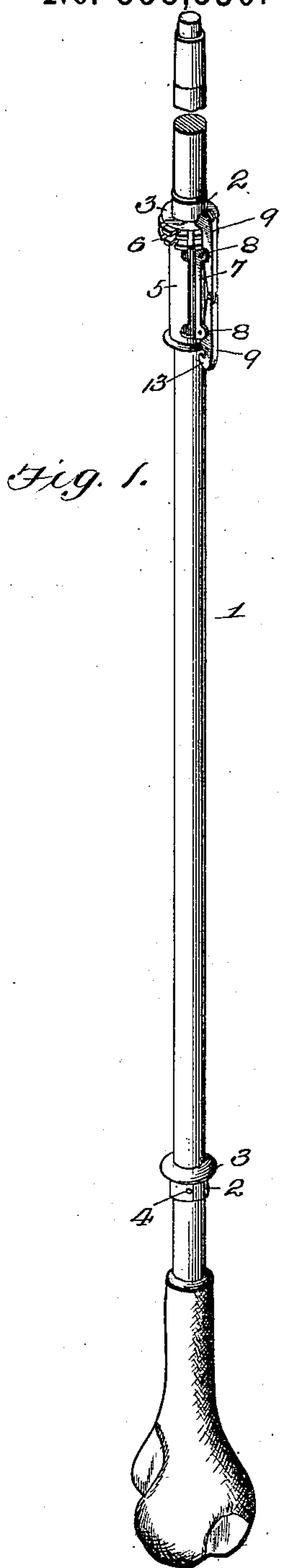


Fig. 1.

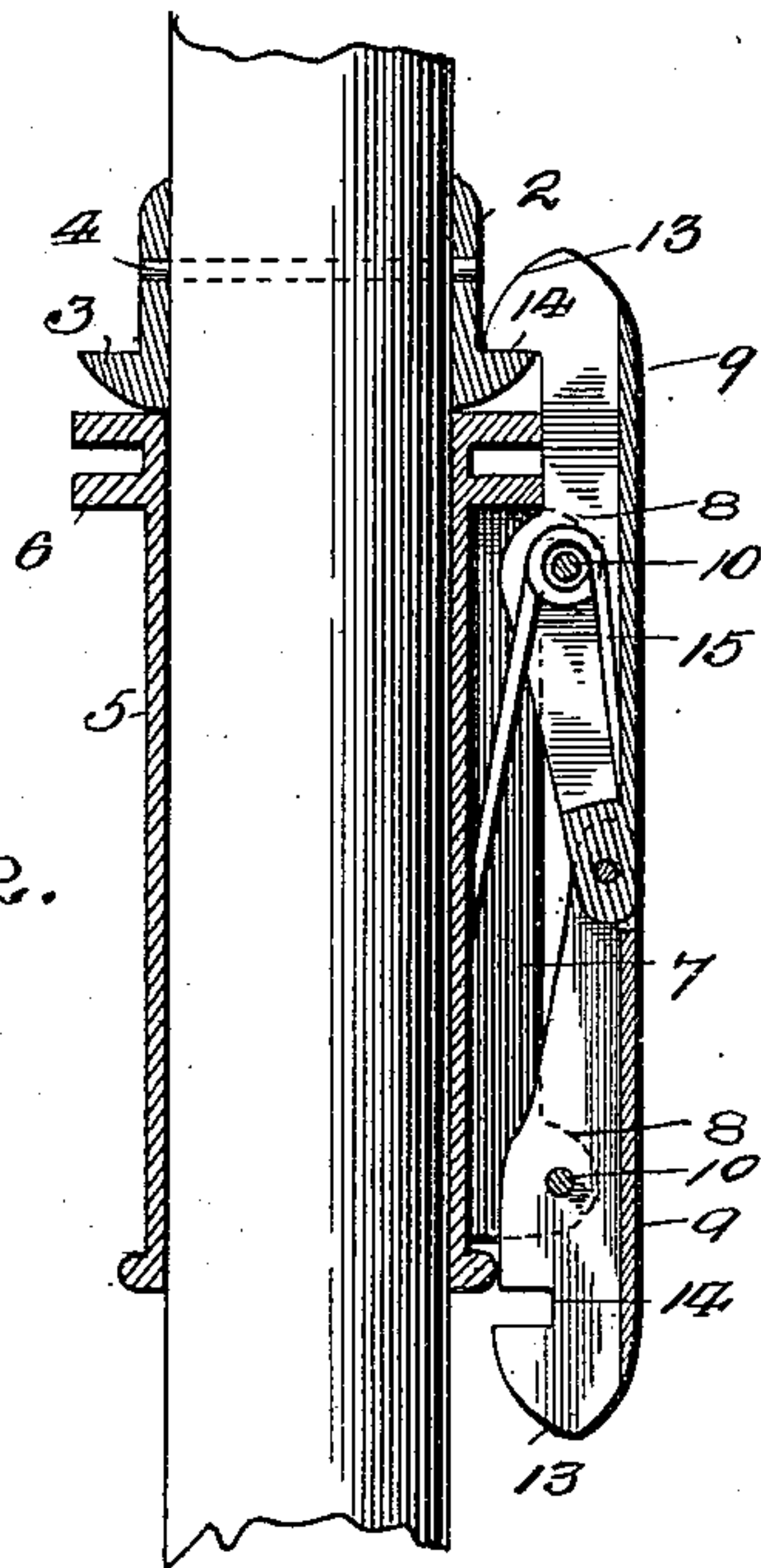


Fig. 2.

Fig. 3.

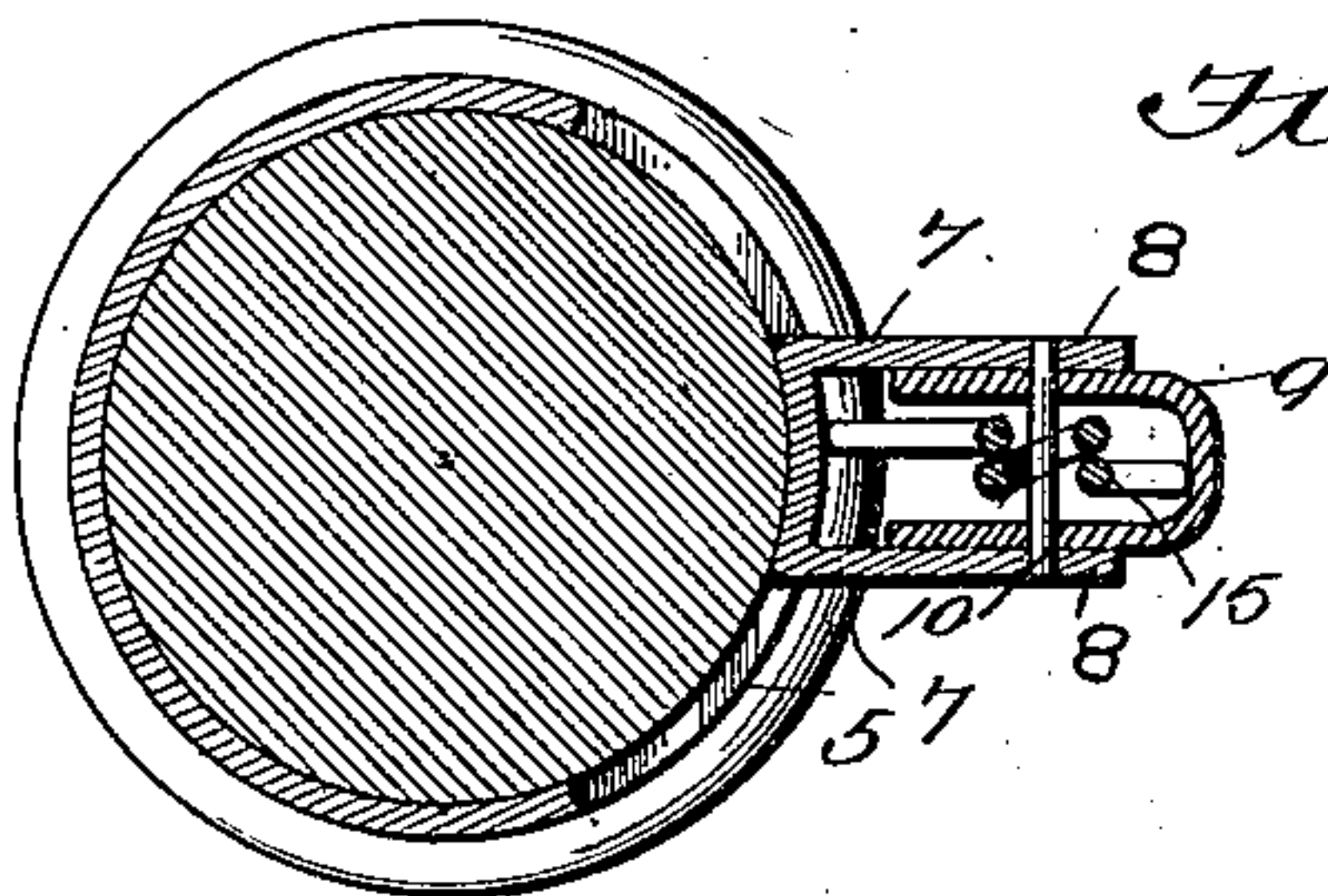
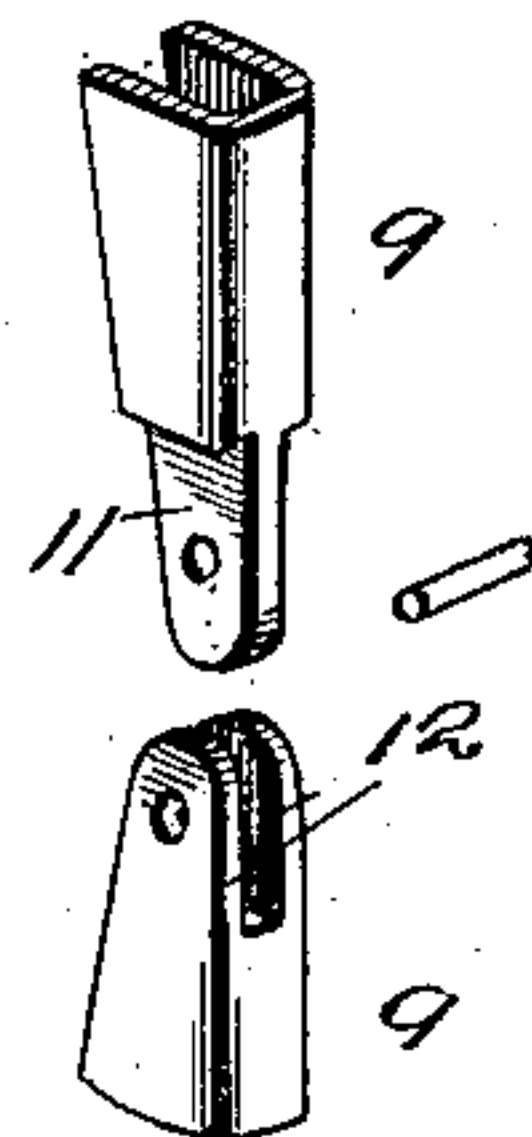


Fig. 4.

Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES SIMMONS, OF LONG BRANCH, NEW JERSEY.

UMBRELLA-RUNNER.

SPECIFICATION forming part of Letters Patent No. 558,530, dated April 21, 1896.

Application filed October 9, 1894. Serial No. 525,414. (No model.)

To all whom it may concern:

Be it known that I, JAMES SIMMONS, a citizen of the United States, residing at Long Branch, in the county of Monmouth and State of New Jersey, have invented a new and useful Umbrella-Runner, of which the following is a specification.

The class of umbrella-runners to which this invention is specifically related is that wherein the runner is provided with a pair of levers adapted to engage with the stick at such points as the operation of the device may require; and the principal object of the invention is to provide a runner of this class wherein it will be possible to more effectively and easily operate the levers in unison, thus making it possible to disengage the runner at one point and engage it at another point with the same movement of the levers.

To this end the invention consists in forming a sheet-metal runner with two longitudinally-extending and parallel flanges struck up from the runner and fulcruming in the respective ends of these flanges two levers, so that they will be capable of swinging thereon and so that they will be guided and prevented from lateral play by the flanges between which they are arranged to pass in their operation. A spring is provided for giving the levers a tendency to engage with the stick, and this spring is arranged between the flanges so that it will be held in place by the same. These features of construction will be fully described hereinafter, and are illustrated in the drawings, in which—

Figure 1 is a perspective view of an umbrella-stick supplied with my improvements. Fig. 2 is a longitudinal section of the runner, the view extending to a portion of the umbrella-stick. Fig. 3 is an enlarged cross-section taken through the runner and showing the formation thereof. Fig. 4 is a detail perspective of one of the levers. Fig. 5 is an enlarged perspective view illustrating the coupling between the said lever.

The reference-numeral 1 indicates the umbrella-stick, which may be of any preferred kind, and which, when used in conjunction with my invention, need not have any notches or recesses formed therein, which are well known to decrease its strength and durability.

2 indicates a pair of collars, which are

formed with concentric flanges 3, having their outer sides beveled or inclined, for a purpose which will be hereinafter described. These collars 2 are secured to the stick 1 by any preferred or suitable means, and I have shown the pins 4 for this purpose, though it will be understood that any other means may be resorted to, if so desired. One of the collars 2 is arranged at the upper end of the stick and is adapted to hold the runner when the umbrella is extended, while the remaining collar is secured to the lower end of the stick and provided to hold the runner when the umbrella is folded, all of which will be understood.

The runner consists of a sheet-metal sleeve 5, having at its lower end a bead and at its upper end the concentric flanges 6, extending peripherally thereon and adapted to have the braces or stretchers of the umbrella pivotally secured between them, all of which is in accordance with the usual construction of such devices. Formed integral with the sleeve 5, and by striking them out of the material composing said sleeve, are the longitudinal flanges 7, which are two in number and which are bent so as to extend radially from the sleeve and so as to lie parallel with each other, thus forming a guideway, as is well shown in Fig. 3. The ends of the flanges 7 are each formed with an upwardly-projecting portion or lug 8, which lugs are transversely alined at each end of the flanges 7, so as to provide means for mounting the lever. These devices are designated by the numeral 9, and are each formed of an integral piece of sheet metal bent to be substantially U-shaped in cross-section and having the pins 10 passed through them at about their middles, whereby they are mounted so as to be capable of rocking on their mountings. The pins 10 are one for each lever, and are respectively passed through the lugs or projections 8 of the flanges 7. Thus it will be seen that the levers are mounted in longitudinal alinement, and the comparative size of the parts is such that the inner ends of the levers will be directly adjacent to each other, and these ends are pivoted together by forming on one lever a tongue 11, adapted to fit between two oppositely-arranged lugs 12 on the remaining lever, a pin or pintle being passed through

the lugs and tongue, whereby the parts are joined. Each lever is formed at its free end with a beveled or inclined nose 13, adapted to engage with the beveled faces of the flanges 3 and thereby automatically ride over said flanges, so that the shoulders of the hooks 14 will engage with the perpendicular sides of the flanges and connect the runner to the collar, which may be adjacent thereto.

10 The upper lever is slightly longer than its companion or the lower lever, and the parts are so constructed as to permit said lever to extend above the concentric flanges 6, as is necessary to a successful operation.

15 15 indicates a spring, which is arranged between the flanges 7 and which bears against the under side of the upper lever 9, giving said lever a tendency which will throw its hook inwardly and causing the remaining lever to have a similar tendency owing to the connection between the two levers. The spring 15 is not essentially of any particular class, but it is preferred that it be formed of a wire or rod bent to assume the shape shown in the drawings. Such a spring as this is better guided by the flanges 7, and it is also more durable and effective in operation.

The use of my invention will be well understood from the foregoing description and from the state of the art, and it will suffice for me to say that to operate the runner all that will be necessary is to grasp it with the forefinger and press the inner ends of the levers 9 inwardly by means of the thumb. This will overcome the spring 15 and cause the hooks 14 of the levers, or their outer ends, to be raised out of engagement with the respective collars 2, thus permitting the runner to be moved on the stick until it engages, through the medium of one of its levers, with the remaining collar.

It will be observed that the device is simple and durable and that the flanges 7 operate in a twofold connection—namely, to provide means for fulcruming the levers 9 and to brace said levers against lateral movement—thus making it possible to operate them in that careless manner which is almost invariably to be found in practice, and without breaking or displacing any of the parts.

55 The longitudinal flanges 7 extend nearly the full length of the runner, and are formed by cutting portions from the sides of the runner and bending them outwardly substantially at right angles to the sides of the runner, so that the space between the inner edges of the flanges is closed, as most clearly shown

in Fig. 3. The levers 9, with their hooked ends, form catches, the active ends of which extend and operate beyond the ends of the runner, so as to engage with the collars or stops 2, near the opposite ends of the umbrella-stick 1. By having the catches 9 constructed of sheet metal in the manner set forth a complete housing or closure is formed for the spring 15, as clearly indicated in Figs. 2 and 3, thereby protecting the said spring from all injury and from any engagement with the hand or covering of the umbrella, which is objectionable.

Having described the invention, I claim—

1. A runner for use in the construction and manufacture of umbrellas substantially as herein set forth, and consisting of a sleeve having integrally formed therewith at one end a reinforcing-bead, at its opposite end concentric flanges which are notched, and between its ends longitudinal flanges extending in parallelism and formed with lugs, substantially as and for the purpose set forth, the flanges and the lugs being formed from portions cut from the body of the sleeve and bent outwardly, substantially as shown.

2. In an umbrella, the combination of a stick having annular stops near its opposite ends, a runner mounted upon the stick so as to travel between the said stops and comprising a sleeve having integrally formed therewith at one end concentric flanges which are notched, and between its ends longitudinal flanges extending in parallelism and formed with lugs, the flanges and the lugs being formed from portions cut from the body of the sleeve and bent outwardly, substantially as shown, oppositely-disposed catches approximately U-shaped in cross-section and disposed with their open sides facing that portion of the sleeve closing the space formed between the inner edges of the said longitudinal flanges and fulcrumed between the aforesaid lugs, and a single spring mounted upon the pivot of one of the catches and having its end portions housed by the longitudinal flanges, the side portions of the adjacent catch and the connecting part between the longitudinal flanges, substantially as set forth.

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

JAMES SIMMONS.

Witnesses:

WM. GOULDING,
HERBERT WILSON.