

No. 678,868.

Patented July 23, 1901.

M. J. GLEASON.  
UMBRELLA RUNNER.  
(Application filed Apr. 2, 1901.)

(No Model.)

Fig. 1.

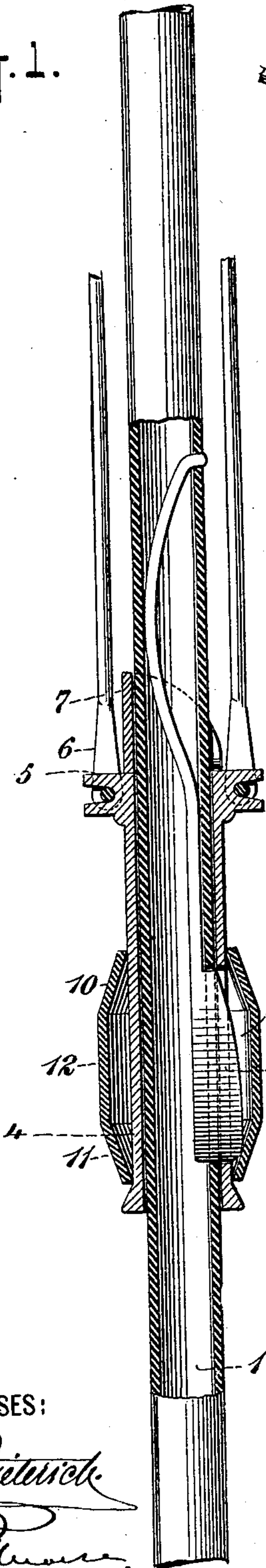


Fig. 2.

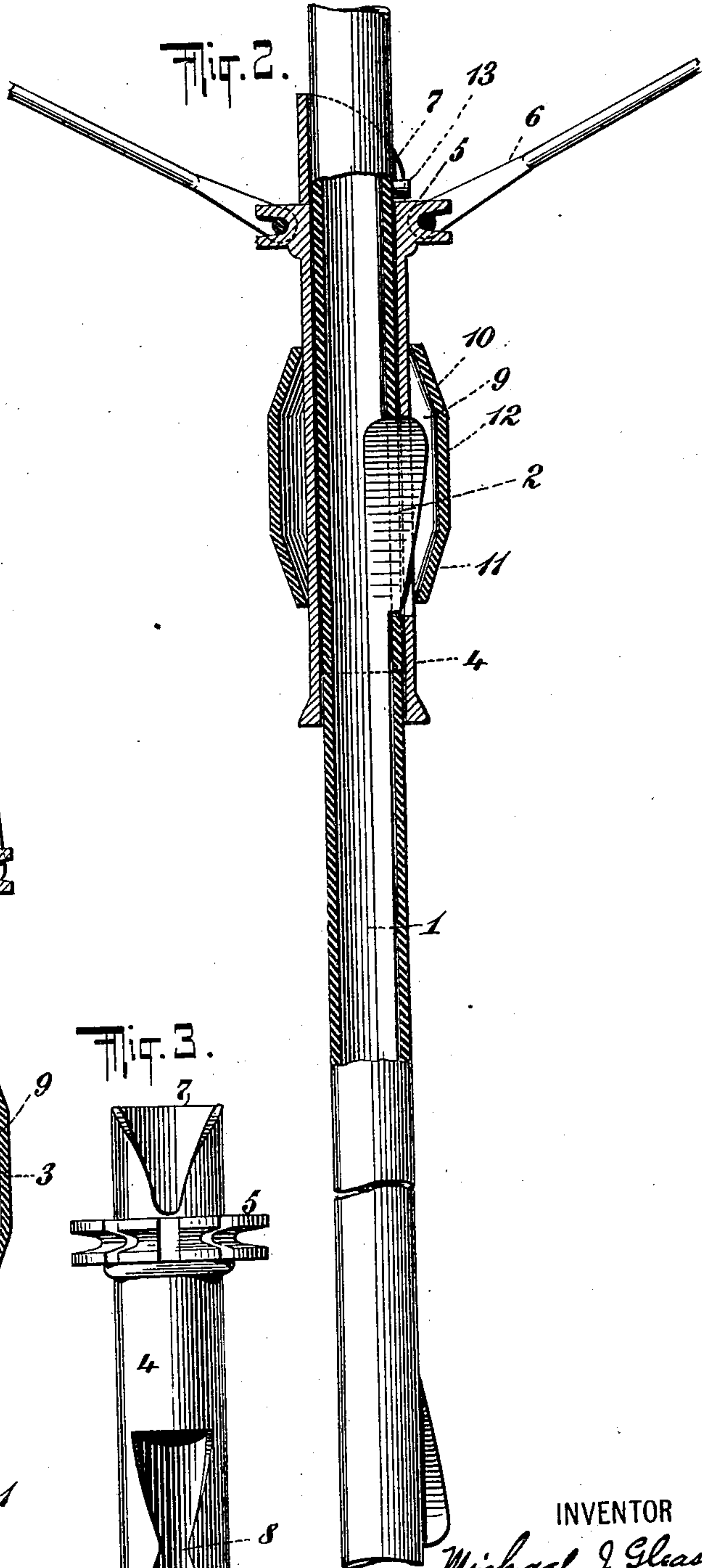
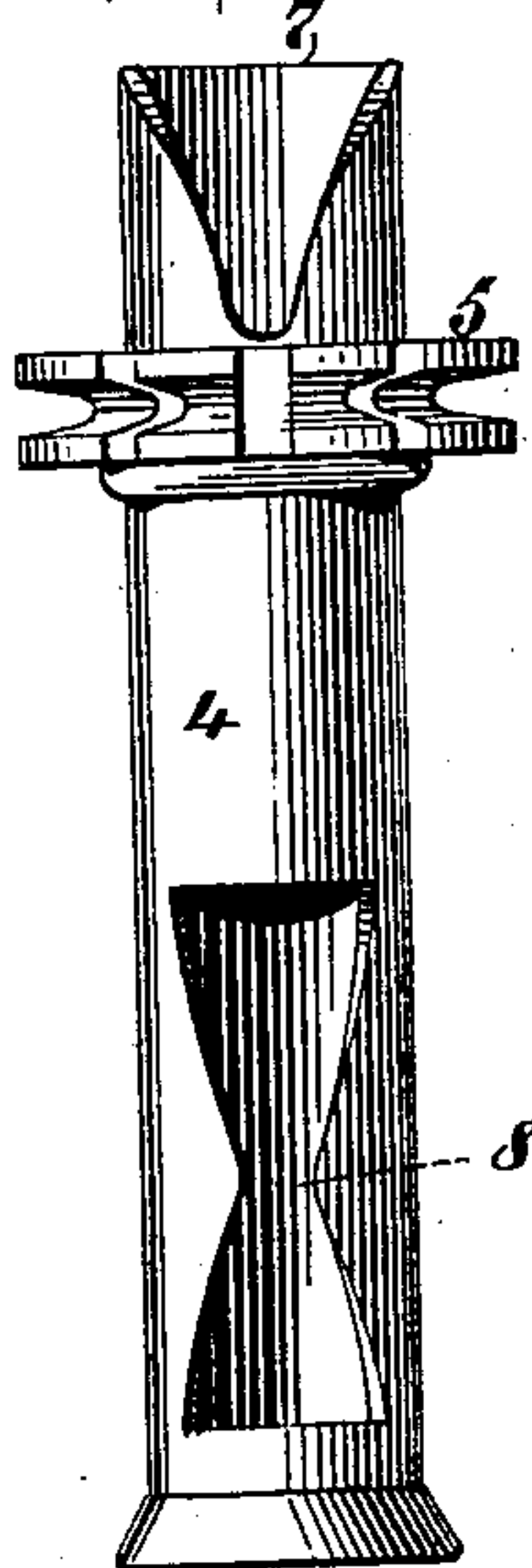


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## UMBRELLA-RUNNER.

SPECIFICATION forming part of Letters Patent No. 678,868, dated July 23, 1901.

Application filed April 2, 1901. Serial No. 54,006. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL J. GLEASON, a citizen of the United States, residing at the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Umbrella-Runners, of which the following is a specification.

My invention relates to umbrella-runners, and has for its object to produce a structure which will remain securely in place in either of its adjusted positions and which can be readily automatically disengaged from the spring-catches by a pull in the direction that the runner is to slide.

In the accompanying drawings I have shown, by way of example, one form of my invention.

In the drawings, Figure 1 is a sectional view of the umbrella runner and stick, the umbrella being shown closed. Fig. 2 is a view of the same parts, showing the umbrella open; and Fig. 3 is a side view of the runner.

In the drawings, 1 indicates the umbrella-stick, provided with any suitable upper catch 2 and lower catch 3, with which the slotted inner tube 4 of the runner engages. This inner tube 4 carries the "notch" 5, to which the stretchers 6 are secured. The tube 4 is also provided at the top with a double cam 7 or V-shaped slot, which guides the runner, so that the catch 2 will enter the locking-slot 8. This locking-slot 8 is located in line with the slot 7 and the catches 2 and 3 and is adapted to receive these catches, as shown in Figs. 1 and 2. Sliding freely upon the tube 4 is an operating slide or sleeve 9. The operating-slide is preferably of the form shown—that is, it has internal cam-surfaces 10 and 11, which are oppositely placed and which preferably are highest toward the middle of the slide and taper toward the ends thereof. In the preferred form shown in the drawings the slide consists of two frusto-conical tubes connected by an intervening cylindrical portion 12. These cam-surfaces are adapted to contact with the catches 2 and 3 to operate the same. The locking-slot 8 is composed of two V-shaped slots, with their narrowest portions communicating with each other. The slot is shown as in the general shape of an

hour-glass or the outline of the letter X. The slot need not be of the particular form shown; but the shape may be modified, the essential feature being that the sides of the slot shall flare or diverge from an intermediate portion of the runner toward both ends thereof. Under these circumstances I shall herein employ the term "double V slot or slots" to indicate this general class of slots. The object of making this slot with the double flare or divergence is to efficiently guide the runner when it is about to engage with the walls or shoulders at the ends of the slot 8. It will be observed that the catches engage in the slot 8 in each of the adjusted positions of the runner and that the walls of the narrow portion of the slot closely approach the sides of the catch and that the length of the slot closely approximates the effective length of each catch, so that with the runner fully up or fully down the narrow portion of the slot 8 will engage the central portion of the catch 2 or 3. By reason of this construction the operation of the device is rendered very certain and the catch is firmly held in the slot 8, so that the vibration of the parts will be minimized.

Having described the preferred form of my invention, I will now describe the operation of the device shown.

When the umbrella is closed, as shown in Fig. 1, and it is desired to open it into the position shown in Fig. 2, the operating-slide is pushed upward until the cam device 11 pushes the catch 3 into the tubular umbrella-stick and releases the catch from the tube 4. The umbrella may now be raised into the position shown in Fig. 2, the tube 4 sliding over the catch 2 and being guided into position by the V-shaped cam 7, operating on the stop-pin 13, and by the upper portion of the slot 8. The catch 2 will drop into the slot 8 and the runner will be locked in place. When it is desired to lower the umbrella, the reverse operation takes place, the cam device 10 operating upon the catch 2 to release the same from engagement with the tube 4 and the slot 8 guiding the lower catch 3 into itself by reason of the flaring shape of the lower end of said slot.

Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. An umbrella-runner comprising a tube provided with a catch-receiving slot which is  
5 narrow at its central portion and flares toward both ends.

2. An umbrella-runner comprising a tube provided with a catch-receiving slot which is narrow at its central portion and flared to  
10 ward both ends, said runner being further provided with a flaring notch located at its end in alinement with said slot.

3. The combination of the umbrella-stick having a catch projecting through an aper-  
15 ture of the stick, and a runner having a slot

the length of which is approximately equal to that of the projecting catch portion, said slot being narrow at its central portion, and flaring at both ends.

4. An umbrella-runner comprising a tube 20 provided with a catch-receiving slot which is narrow at its central portion and flares toward both ends, and a sleeve mounted to slide lengthwise of the runner-tube and provided at its ends with interior cams or bevel sur- 25 faces to engage the catches.

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Witnesses:

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