

No. 631,942.

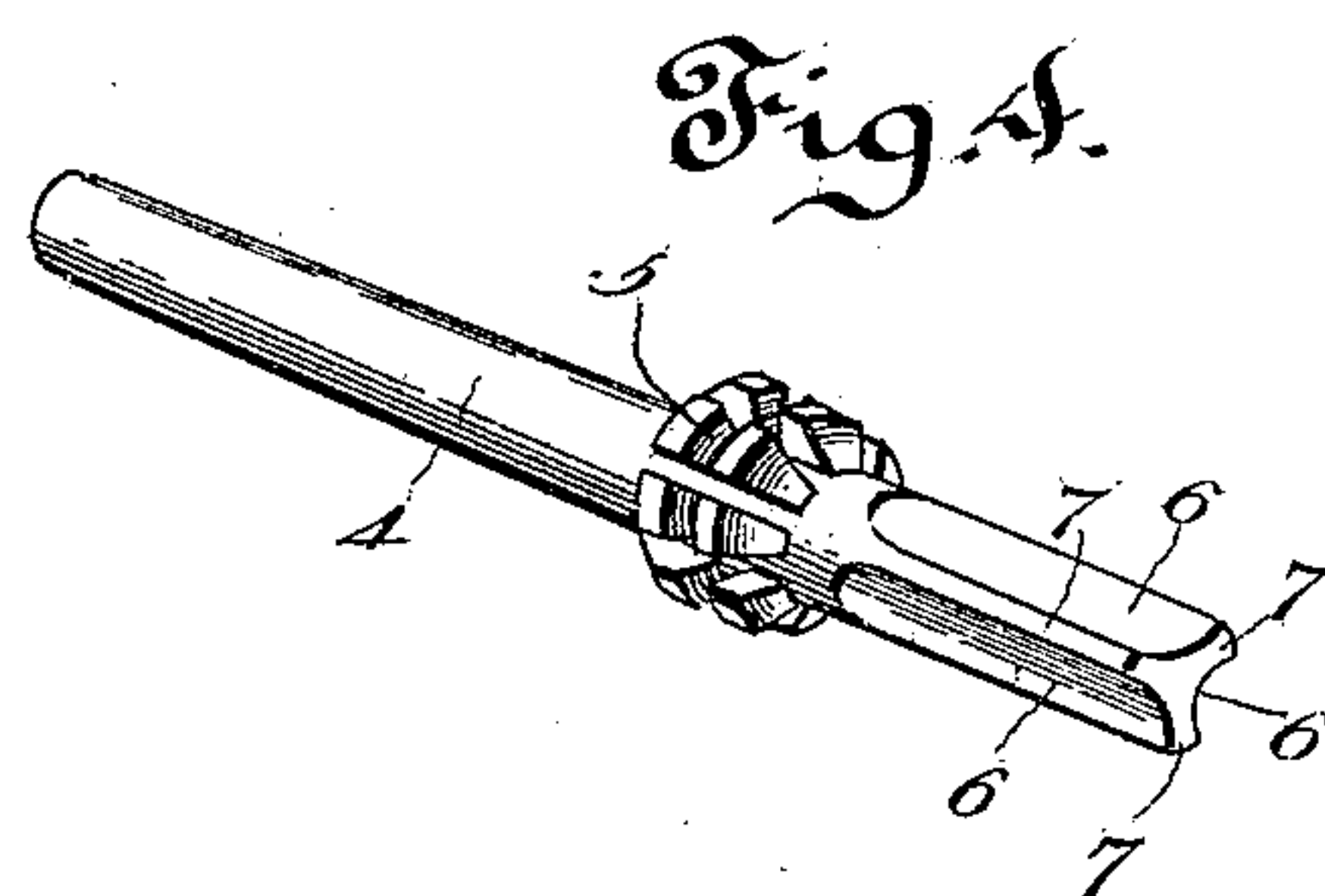
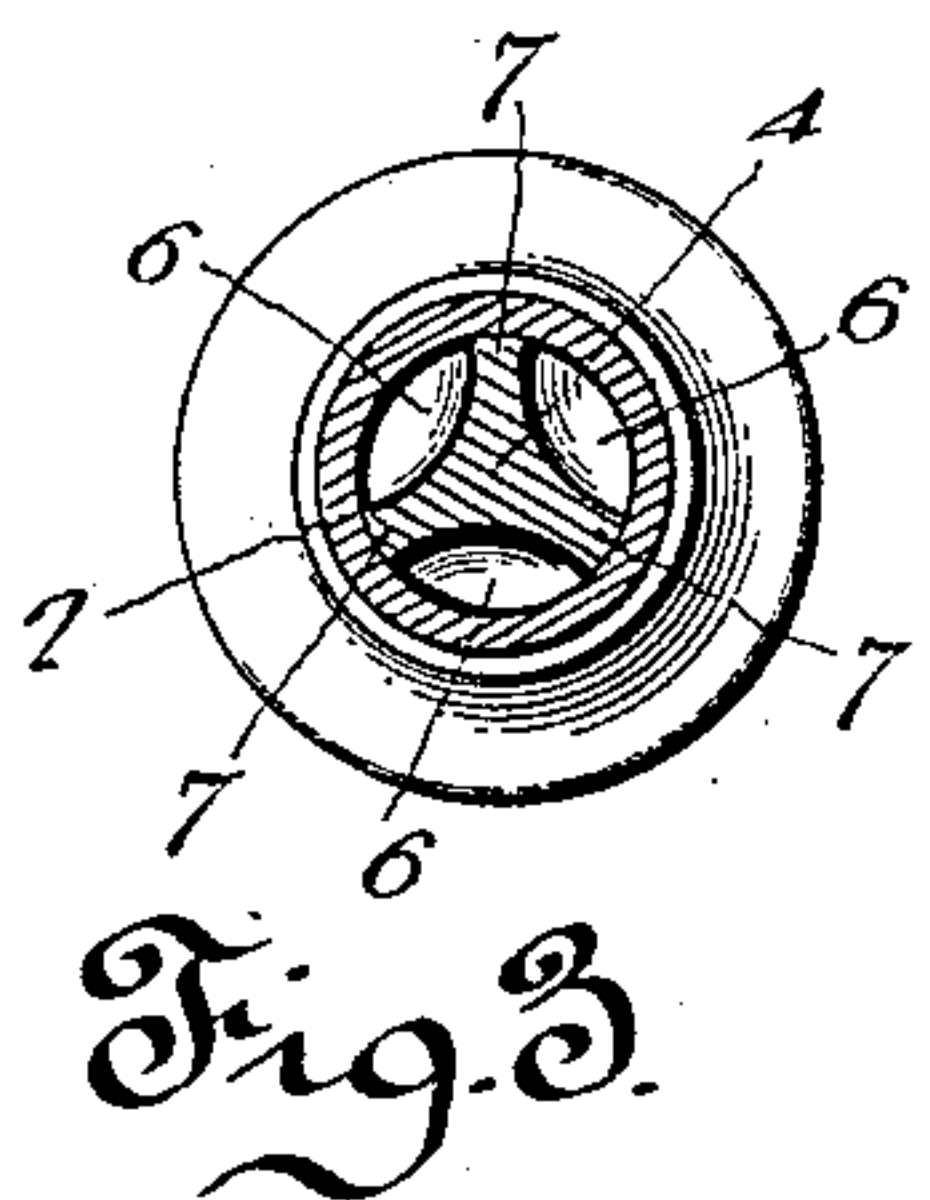
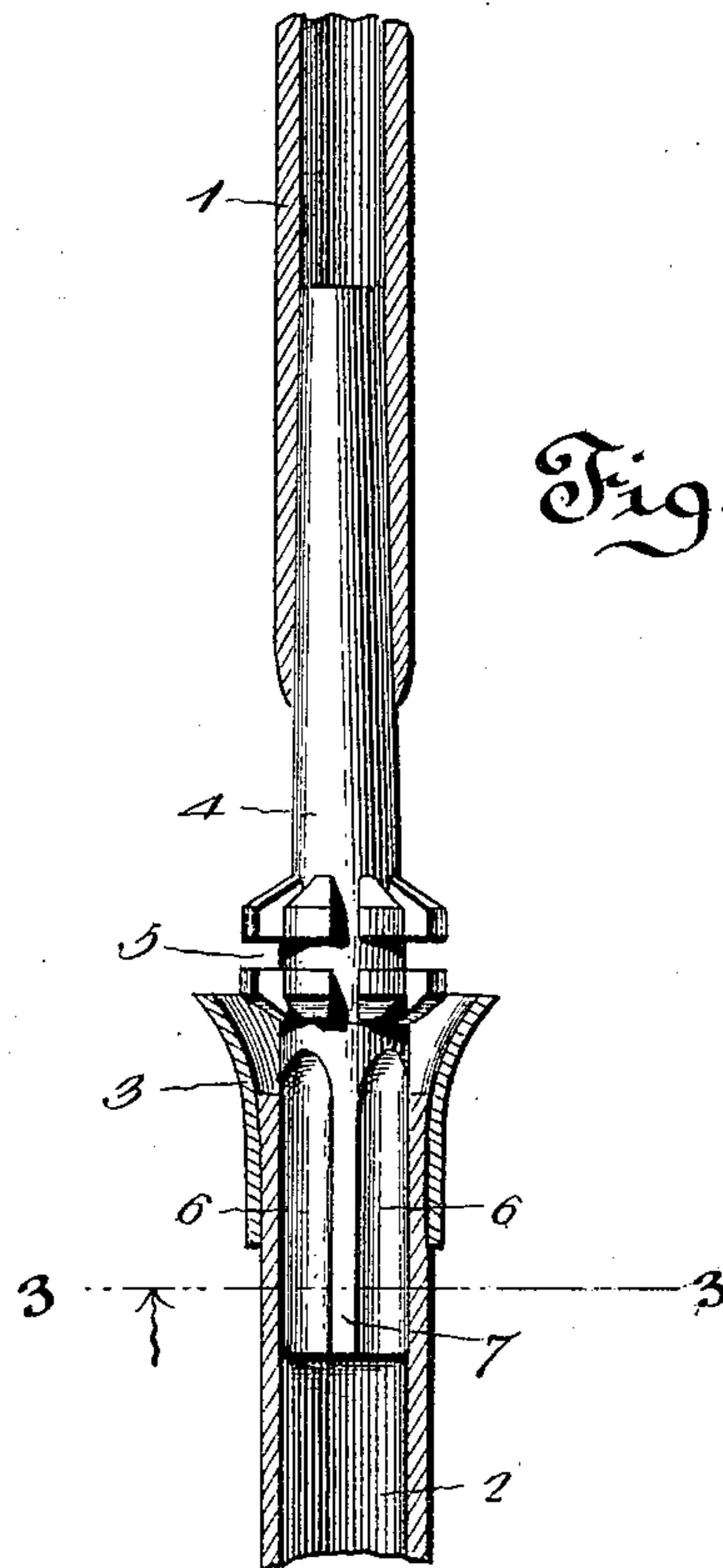
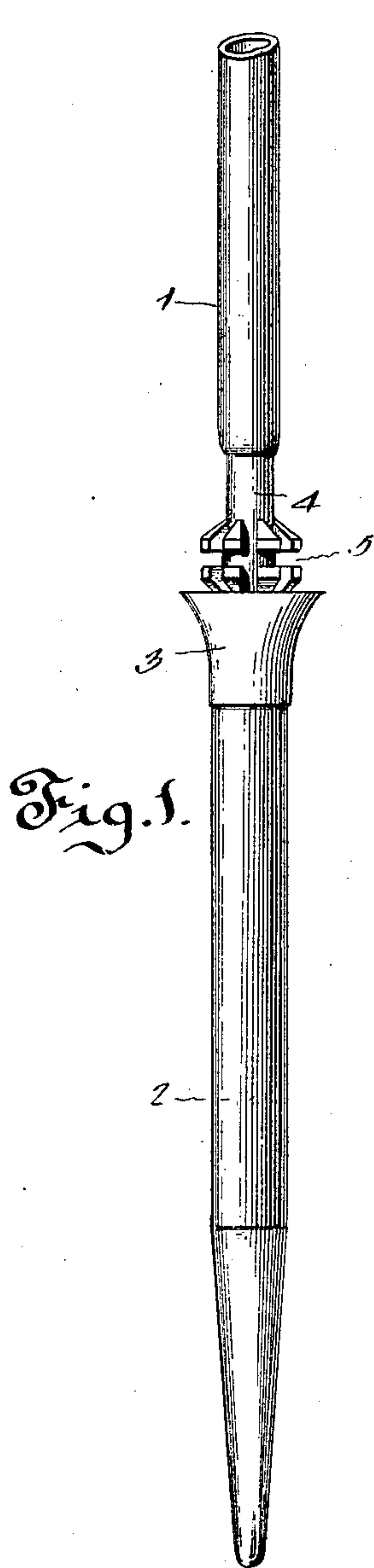
Patented Aug. 29, 1899.

J. H. SPRAGUE.

UMBRELLA STICK.

(Application filed Oct. 29, 1898.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES H. SPRAGUE, OF NORWALK, OHIO.

UMBRELLA-STICK.

SPECIFICATION forming part of Letters Patent No. 631,942, dated August 29, 1899.

Application filed October 29, 1898. Serial No. 694,961. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. SPRAGUE, a citizen of the United States, residing at Norwalk, in the county of Huron and State of Ohio, have invented a new and useful Umbrella-Rod, of which the following is a specification.

This invention relates to umbrella-rods; and it has for its object to provide a new and useful form of joint or coupling between the handle-stick and the tip, whereby these parts shall be firmly secured together, while at the same time facilitating the assembling of the sections comprising the rod and permitting the latter to be provided with a smaller and neater tip or point than it has heretofore been possible to use.

One of the essential features of the present invention is the provision of the coupling extension which connects the handle-stick and the tip with an integral top notch, thereby overcoming the disadvantages arising from the use of the rivet, which is ordinarily passed through the top notch of an umbrella-rod to provide for securing the same in place. Where the notch is made separate from the stick or extension thereof, it is necessary to drill openings for the reception of the rivet, which openings weaken the stick and make the umbrella very frail; but by the use of the present invention the use of the rivet and its consequent disadvantages are entirely overcome.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a side view of the tip portion of an umbrella-rod embodying the improved coupling-joint contemplated by the present invention. Fig. 2 is a longitudinal sectional view of the joint connection between the handle-stick and the tubular tip. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail in perspective of the extension coupling-stem.

Referring to the accompanying drawings, the numeral 1 designates the handle-stick of an umbrella-rod, which stick is of the usual tubular construction and is used in connection

with the tip or point 2 of the rod, which tip or point is also tubular and has fitted thereon, around the inner open end thereof, the usual cap 3, which covers the connection between the ribs and the top notch of the rod.

The present invention contemplates an improved form of coupling between the contiguous ends of the stick 1 and tip 2, and to provide for this coupling there is employed an extension coupling-stem 4. This coupling-stem is provided intermediate its ends with an ordinary form of notch 5, which forms the top notch of the rod for the connection of the inner ends of the ribs thereto. An essential feature of the construction, however, is that the top notch 5 is formed integrally with the extension coupling-stem 4, so that a loosening of said notch relatively to the stem is entirely obviated. By reason of the fact that the top notch 5 is formed integrally with the stem 4 the use of the rivet is entirely dispensed with and thereby avoids weakening of the extension. At one side of the notch the extension coupling-stem 4 has a cylindrical portion which tightly wedges in the open end of the handle-stick 1 and may be slightly tapered to insure a tight wedging fit, while at the opposite side of the notch 5 the stem 4 is longitudinally fluted to form a plurality of longitudinal grooves 6, which are separated by narrow webs 7, having sharp edges to secure a firm grip within the open end of the tubular tip 2, which is fitted over the said fluted portion of the extension-coupling 4. The fluted portion of the extension coupling-stem has a tight wedging fit within the open end of the tip 2, and the sharp edges of the webs 7 bite into the inner surface of the tip and prevent longitudinal or axial displacement thereof.

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.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In an umbrella-rod, a handle-stick, a tubular tip, and a coupling piece or stem connecting the stick and tip, said coupling piece or stem having a plurality of longitudinal

radiating webs engaging the inner surface of the tip, substantially as set forth.

2. In an umbrella-rod, the stick carrying an extension coupling-stem having a notch
5 and a longitudinally-fluted portion, and the tubular tip fitting over the fluted portion of said stem, substantially as set forth.

3. In an umbrella-rod, the combination with the tubular stick and the tubular tip, of an
10 extension coupling-stem having intermediate its ends a notch and having one end fitting in the tubular stick, the opposite end portion

of the stem fitting in the tip and provided with a plurality of longitudinal grooves and between such grooves with narrow engaging
15 webs, 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 H. SPRAGUE.

Witnesses:

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