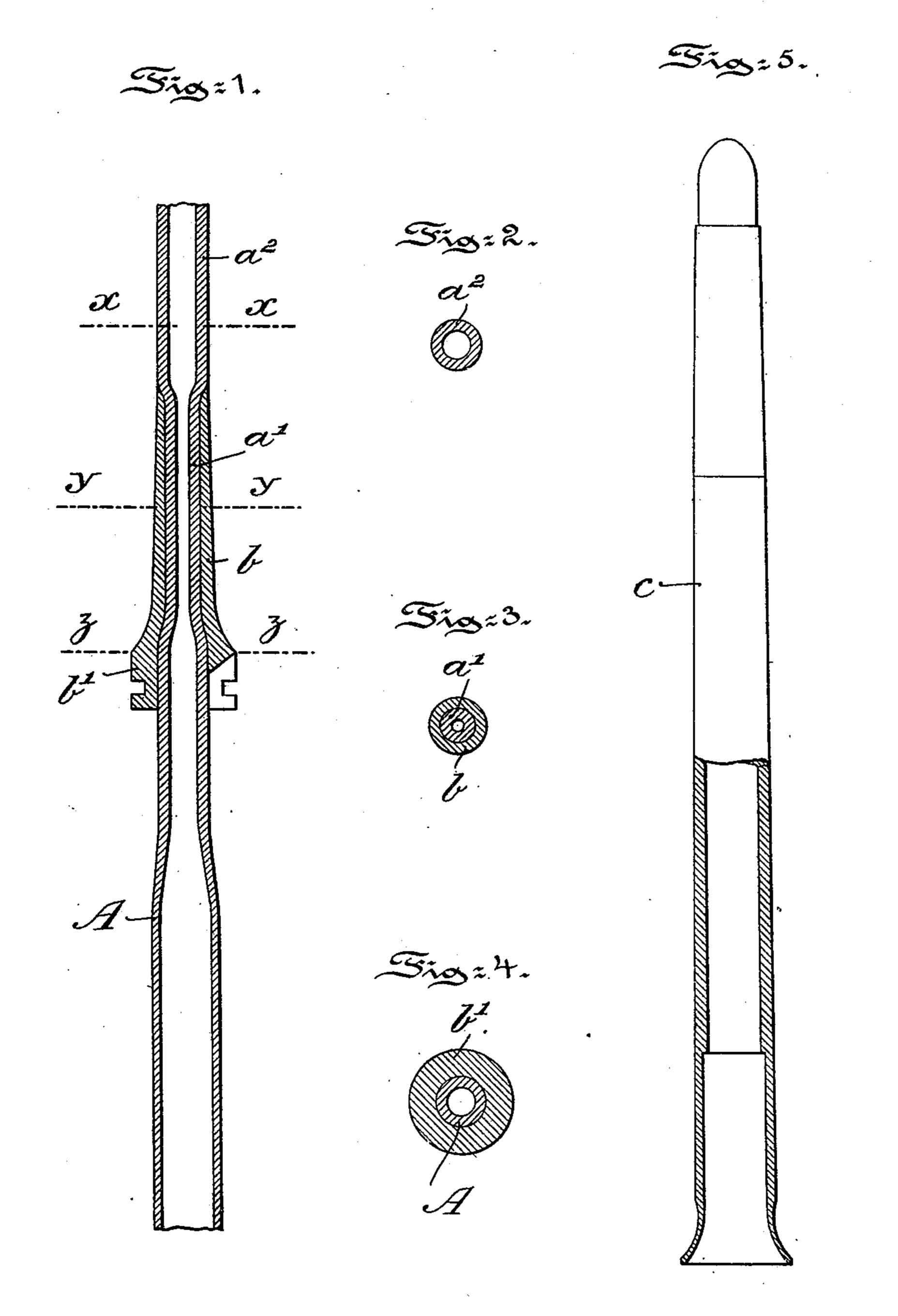
## J. ROSE. UMBRELLA STICK.

(Application filed Feb. 17, 1899.)

(No Model.)



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## United States Patent Office.

JOHN ROSE, OF PHILADELPHIA, PENNSYLVANIA.

## UMBRELLA-STICK.

SPECIFICATION forming part of Letters Patent No. 631,441, dated August 22, 1899.

Application filed February 17, 1899. Serial No. 705,766. (No model.)

To all whom it may concern:

Be it known that I, John Rose, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and 5 State of Pennsylvania, have invented certain new and useful Improvements in Sticks or Rods for Umbrellas or Parasols, of which the

following is a specification.

My invention relates to improvements in a 10 tubular metallic umbrella or parasol stick of the type described and claimed in Letters Patent No. 504,944, granted to me September 12, 1893, and in which one portion is drawn down near one end, so that the same is re-15 duced in diameter and is of the same or greater thickness than the unreduced portion of the stick. In accordance with my present invention a rib-notch having a tubular extension is united to the reduced end of the 20 stick aforesaid by a swaging operation, so that the diameter of the reduced end of the without weakening its walls, to thereby materially strengthen the stick at that point as 25 well as to secure the rib-notch to the stick without extraneous fastenings.

Hitherto it has been found in practice that introducing a fastening-pin or the like through the rib-notch into the stick weakened 30 the same, whereby when undue pressure was exerted upon the stick the ferrule or tip tended to bend or to snap off adjacent to the

rib-carrying notch of the stick.

The principal objects of my present inven-35 tion are, first, to provide a tubular metallic umbrella or parasol stick drawn down near one end, so that the tubular end of the stick is reduced in diameter and is of the same or greater thickness in its walls than the unre-40 duced portion, in combination with a ribnotch having a tubular extension united to the reduced end by a swaging operation, so that the diameter of the reduced end of the stick is still further decreased without 45 weakening its walls, to thereby materially strengthen the stick at that point as well as to secure the rib-notch to the stick without extraneous fastenings, and, second, to provide a stick of the character defined with 50 preferably a long ferrule or tip adapted to be slipped over the reduced end of the stick and the tubular extension of the rib-notch to

conceal the union of the extension of the ribnotch with the stick.

My invention, stated in general terms, con- 55 sists of an umbrella or parasol stick when constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and characteristic features of my present invention will be more fully un- 60 derstood from the following description, taken in connection with the accompanying drawings, forming part thereof, in which—

Figure 1 is a vertical sectional view of a portion of a tubular metallic umbrella-stick 65 with the rib-notch having a long extension or sleeve swaged to the stick and the said view embodying the main features of my said invention. Figs. 2, 3, and 4 are cross-sectional views on the lines x x, y y, and z z of Fig. 1; 70 and Fig. 5 is a view, partly in elevation and partly in section, of a long ferrule or tip adapted to be secured to the stick and the stick is still further decreased or reduced | long sleeve or extension of the rib-notch to give a finished appearance to the stick and 75 umbrella or parasol.

Referring to the drawings, A represents a tubular metallic umbrella or parasol stick drawn down near one end, so that the tubular end is reduced in diameter, as at  $a^2$ , but is 80 of the same or greater thickness than the unreduced portion or body of the stick. To the reduced end  $a^2$  an extension or sleeve b of a rib-notch b' is united by a swaging operation, so that the diameter of the reduced end of the 85 stick is still further decreased, as at a', without weakening its walls at that point, to thereby materially strengthen the stick in the drawn-down portion and also to permit of the uniting of the rib-notch firmly to the stick. 90 This reduction of the diameter of the stick, as at a', together with the uniting of the sleeve b of the rib-notch b' to the stick at the reduced point a', both serve to strengthen the stick at its inherently weakest point—namely, 95 directly above the rib-notch b'. If desired, a long ferrule or tip c is adapted to be slipped over the reduced end of the stick and the tubular extension b of the rib-notch b' to conceal the union of said extension b with the 100

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

stick A.

1. A tubular metallic stick for an umbrella or parasol, drawn down near one end so that the tubular end portion of the stick is reduced in diameter without decreasing the thickness 5 of the wall as compared with the unreduced portion of the stick, and said reduced end portion being still farther drawn down intermediate of its ends so that the further-reduced portion is of less diameter without de-10 creasing the thickness of the wall as compared with the reduced portion of the stick, in combination with a notch-collar and a tapered sleeve carried by said collar, said sleeve adapted to surround the further-reduced por-15 tion of the stick and to fit snugly thereon, substantially as and for the purposes described.

2. A tubular metallic stick for an umbrella or parasol, drawn down near one end so that the tubular end portion of the stick is reduced in diameter without decreasing the thickness of the wall as compared with the unreduced portion of the stick, and said reduced end

portion being still farther drawn down intermediate of its ends so that the further-reduced portion is of less diameter without decreasing the thickness of the wall as compared with the reduced portion of the stick, in combination with a notch-collar and a tapered sleeve carried by said collar, said sleeve adapted to surround the further-reduced portion of the stick and to fit snugly thereon and a ferrule or tip adapted to be slipped over the reduced end of the stick and the tapered sleeve of the rib-notch to conceal the union of the sleeve to the end of the stick, substantially 35 as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscrib-

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ing witnesses.

JOHN ROSE.

Witnesses:

J. Walter Douglass, Richard C. Maxwell.