

J. ROSE.
 UMBRELLA FRAME.
 APPLICATION FILED APR. 10, 1909.

Patented July 27, 1909.

929,498.

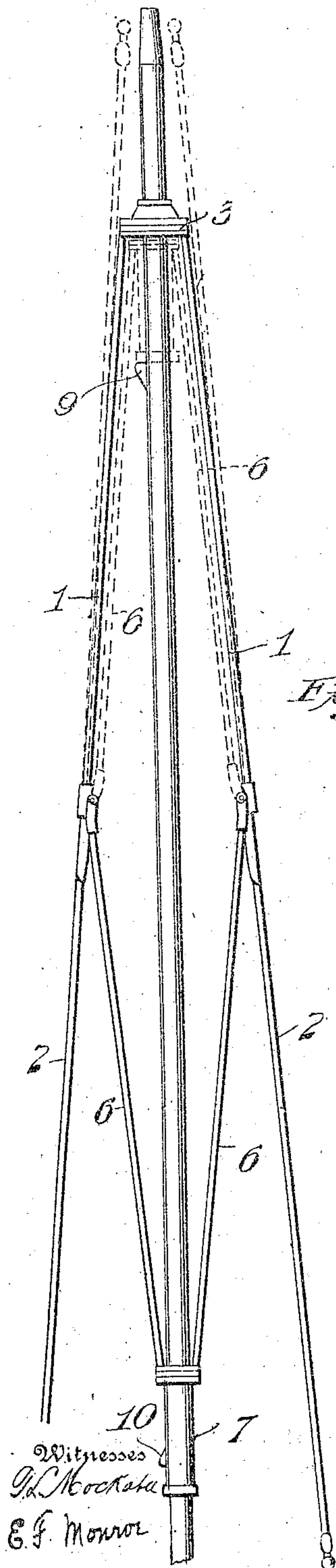


Fig. 1.

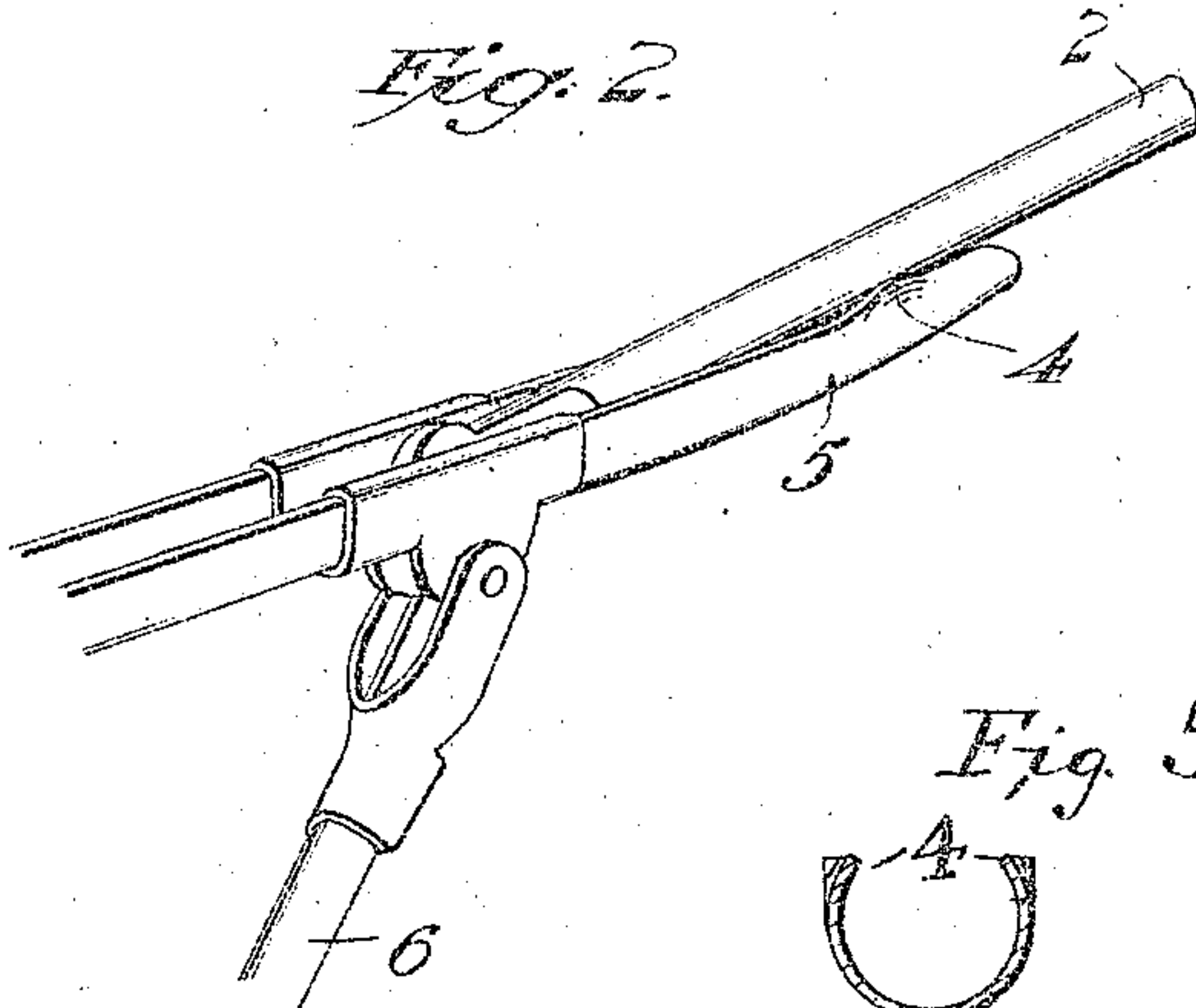


Fig. 2.

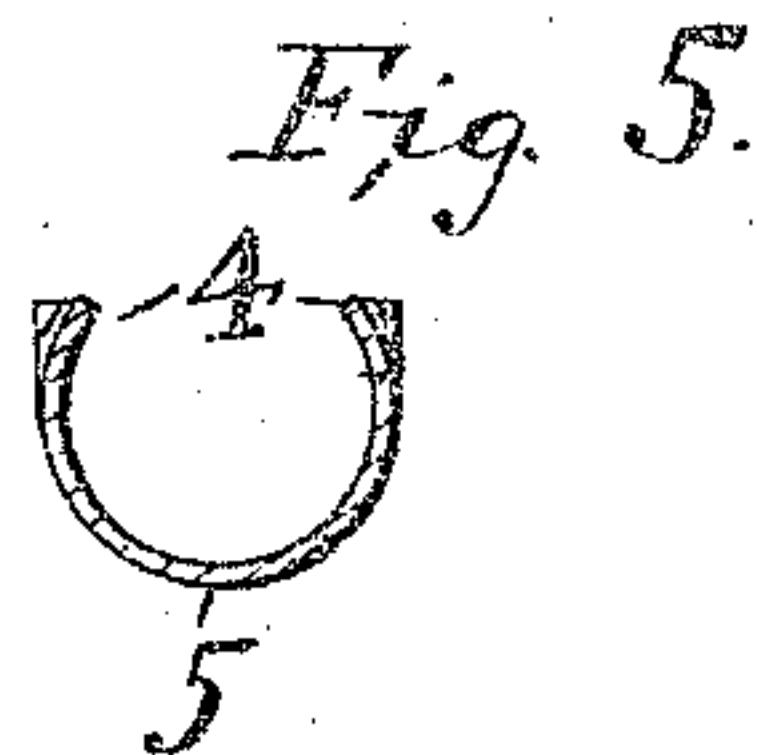


Fig. 5.

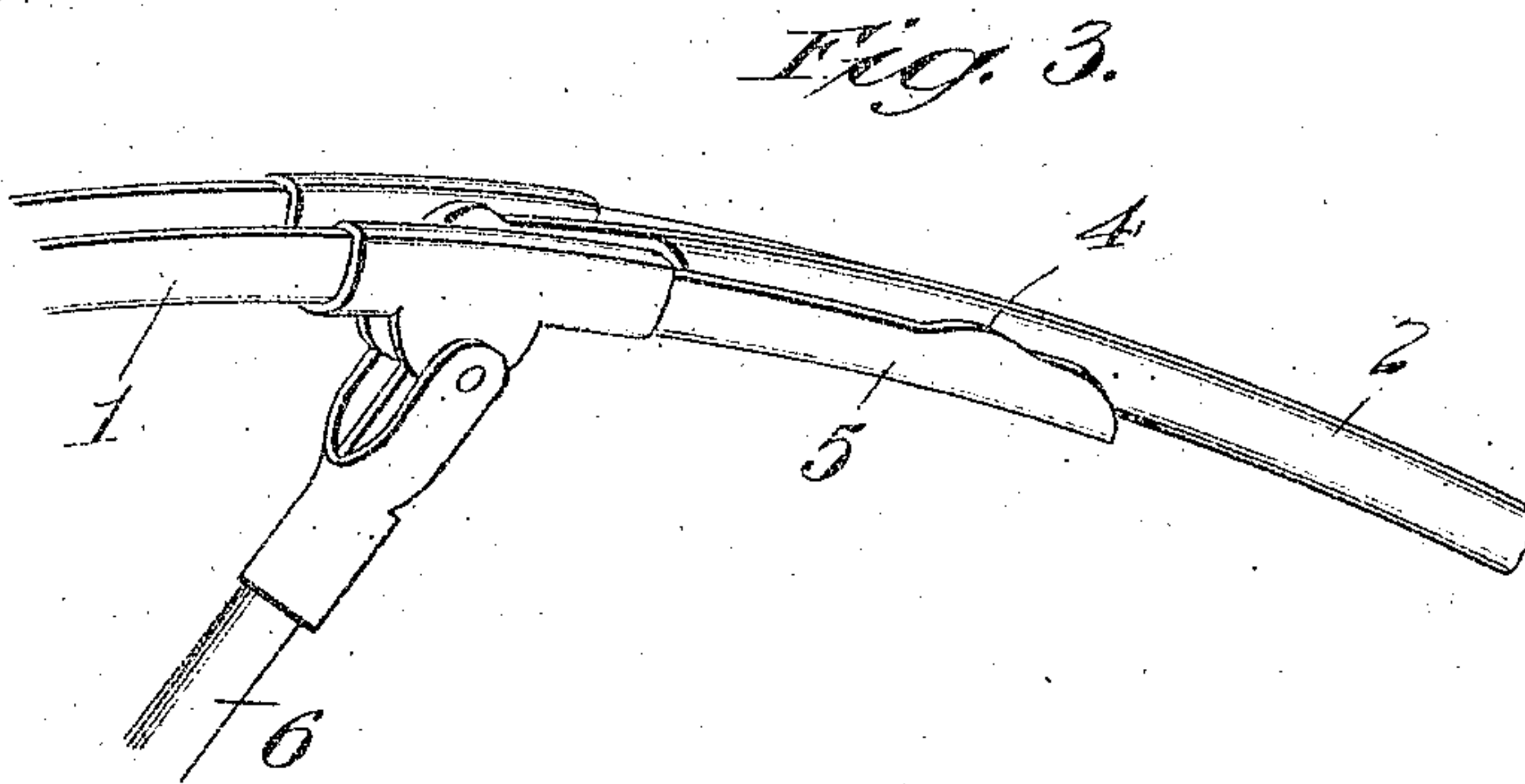


Fig. 3.

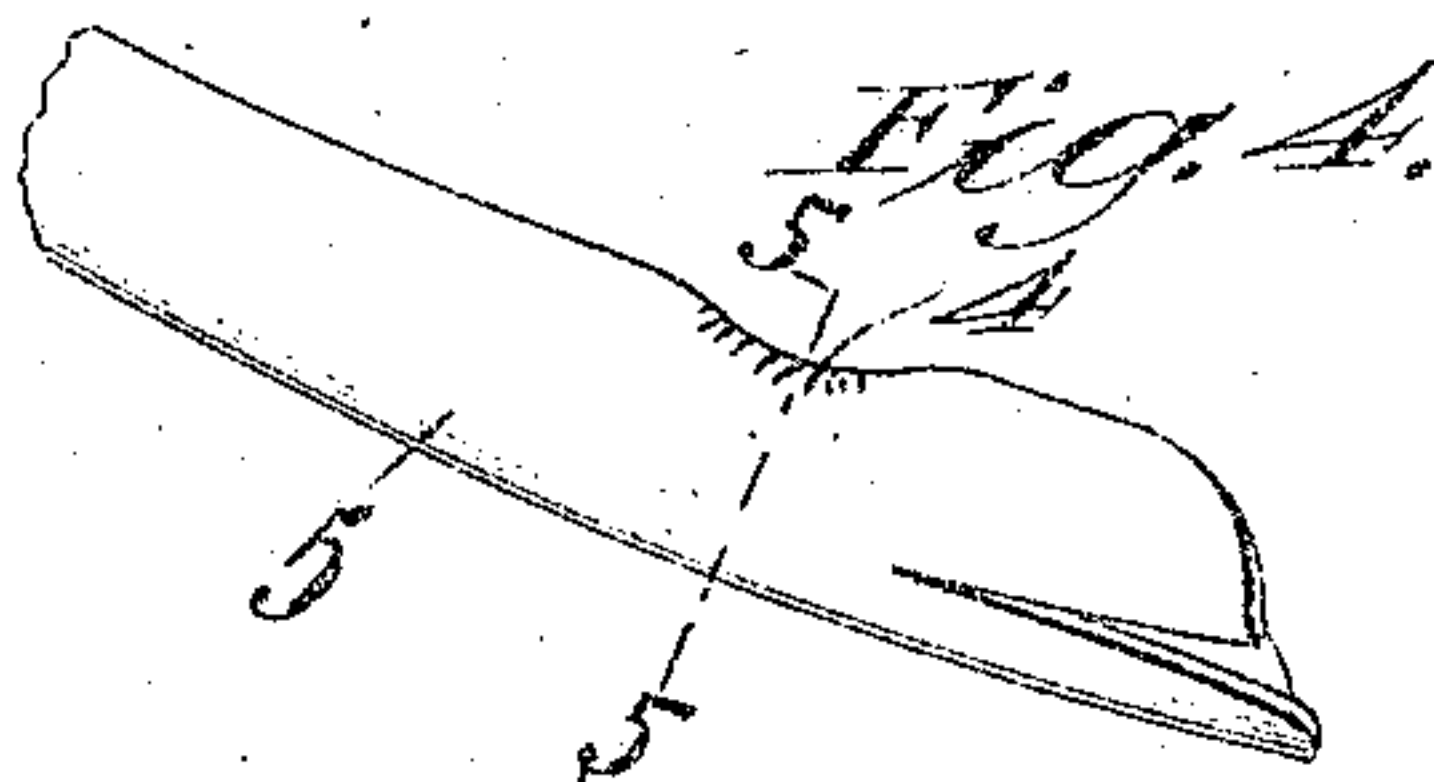


Fig. 4.

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JAMES ROSE, OF LANCASTER, PENNSYLVANIA.

UMBRELLA-FRAME.

No. 929,498.

Specification of Letters Patent.

Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, JAMES ROSE, a citizen of the United States, residing at Lancaster, in the County of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Umbrella-Frames, of which the following is a specification.

This invention relates to umbrella frames, and it relates particularly to the construction of ribs which are made in sections so connected as to allow them to either have their members extended when the umbrella of which they form a part is in use or to be placed parallel to each other in order to occupy a small space when not in use.

The object of the present invention is to provide an umbrella rib of the character referred to capable of ready folding or extension and which shall be combined with means whereby by the act of raising an umbrella in which the ribs are incorporated, such ribs shall without manipulation, be secured in an extended position ready for use, and be retained in such position during use, presenting the appearance of an ordinary umbrella rib.

A further object is to provide an umbrella rib having the above characteristics wherein the parts may be quickly and easily folded by slight force exerted in the right direction.

With these objects in view the invention consists of an umbrella rib having the generic and specific features of construction and arrangement of parts, substantially as hereinafter described and claimed.

The invention is illustrated in the accompanying drawing, in which;

Figure 1 is a side view of an umbrella frame in which the novel form of ribs is incorporated, a portion of the ribs and stretchers being removed in order to make the illustration clear, and showing by dotted lines the ribs in a folded position; Fig. 2 is a perspective view of a rib separated from the other parts of a frame, the rib being shown on an enlarged scale, and the parts thereof being shown in position assumed when they are about to become extended and be connected by raising the umbrella of which they form a part; Fig. 3 is a view similar to Fig. 2 showing a rib in the position assumed when the umbrella is raised; and Fig. 4 is a fragmentary perspective view of the bifurcated end of the rib section. Fig. 5 is a transverse sectional view of the groove or paragon

member, the section being taken on line 5—5 of Fig. 4.

In this drawing the ribs are shown as composed of two parts, 1 and 2. The part 1 of each rib is of the groove or paragon type and is intended to be secured to a notch-ring 3 of an umbrella frame. The portion 1 of each rib has at the end opposite to that at which it is attached to the notch-ring, projections 4 which extend into the channel or groove. These projections may be formed in any suitable way, and they are preferably made by indenting the walls of the part of the rib as shown in Fig. 2. The portion 2 of each rib is pivotally connected to the portion 1 thereof a short distance from the end having the projections or indentations. The portions 2 of the ribs may be either solid or of the paragon type and they are of a size to fit into and be entirely inclosed by the grooves or channels in the portions 1.

Those parts 5 of the members 1 of the ribs located below the point of attachment of the members 2 are preferably formed to extend slightly outwardly at an angle from the body of the member 1.

The ends of the members 2 of the ribs when the ribs are extended, enter the grooves in the members 1 and are retained therein by frictional contact with inner faces of the grooves at the point where the projections or indentations are located. In order to give resiliency to the ends of the members 1 adjacent to the projections or indentations, the ends are preferably slotted or notched to provide a bifurcated end between the parts of which the ends of the members 2 are retained. Besides giving the requisite elasticity to the ends, the slots or notches prevent the accumulation of moisture at the point of contact between the members of the ribs and prevent oxidation which might result in binding of the parts.

The ribs are connected by stretchers 6 to a runner 7 arranged on the rod 8 and adapted to engage springs 9 and 10 carried by the rod, in the usual way.

In the use of an umbrella containing ribs of the form described, when it is desired to put the umbrella into position for use, the umbrella is held in a position with the tip of the rod extending upward. This allows the parts of the ribs to which the cover is attached to drop into a position substantially in line with each other. When the runner is moved upward on the rod the cover is put

under slight tension with the result that the portions 2 of the rib are first brought into contact with the outwardly bent ends of the members 1. As the upward movement of the runner is continued additional tension is put upon the cover with the result that the members 2 are seated in the lower ends of the members 1.

As the runner reaches a point to be in engagement with the upper spring 9 the ribs including the outwardly bent ends of the portions 1 describe a curve as shown in Fig. 3 and are held in such positions by the tension of the cover.

When the parts are in the position described the umbrella presents the appearance of one of the usual construction, and may be raised and lowered in the same manner as the latter without disconnecting the parts of the ribs. When it is desired to fold the umbrella it is only necessary to exert a slight force at the point of contact between the members of the ribs thus allowing them to be disconnected and to be moved to lie parallel to each other to occupy a small space.

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

1. An umbrella frame comprising ribs made in two parts pivotally connected, one part being of the groove or paragon type and having a bifurcated end whose inner faces constitute means whereby the other part is retained by frictional contact when the latter enters the first, substantially as described.

2. An umbrella frame comprising ribs made in two parts pivotally connected, one part being of the groove or paragon type and

having a bifurcated end, the bifurcated end being provided on its inner faces with projections, the other part being adapted to enter the first and be retained by contact with the projections, substantially as described.

3. An umbrella frame comprising ribs made in two parts pivotally connected, one part being of the groove or paragon type and being provided with an outwardly bent end, the other part being adapted to enter the outwardly bent end and be retained by frictional contact with the inner faces of the groove therein, substantially as described.

4. An umbrella frame comprising ribs made in two parts pivotally connected, one part being of the groove or paragon type and being provided with an outwardly bent end having projections on the inner faces of its groove, the other part being adapted to enter the first and be retained by frictional contact with the projections, substantially as described.

5. An umbrella frame comprising ribs made in two parts pivotally connected, one part being of the groove or paragon type and being provided with an outwardly bent bifurcated end, the end having projections extending from the inner faces of its groove, the other part being adapted to enter the bifurcated end and be retained therein by frictional contact with the projections, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES ROSE.

Witnesses:

JOHN H. MYER,
U. S. G. RHOADES.