

No. 819,238.

PATENTED MAY 1, 1906.

C. MACMILLAN.
UMBRELLA RUNNER OR NOTCH.
APPLICATION FILED JULY 6, 1905.

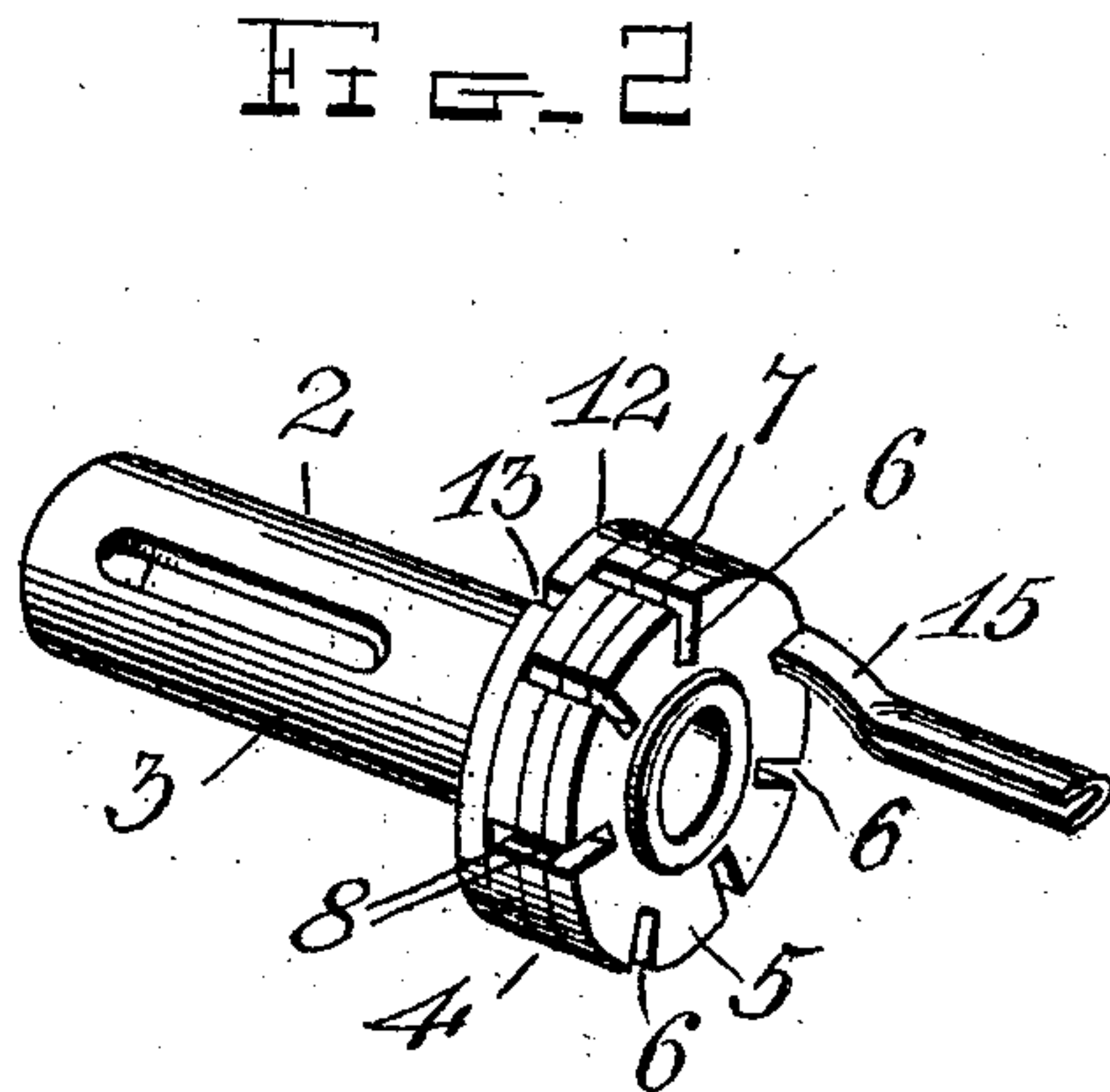
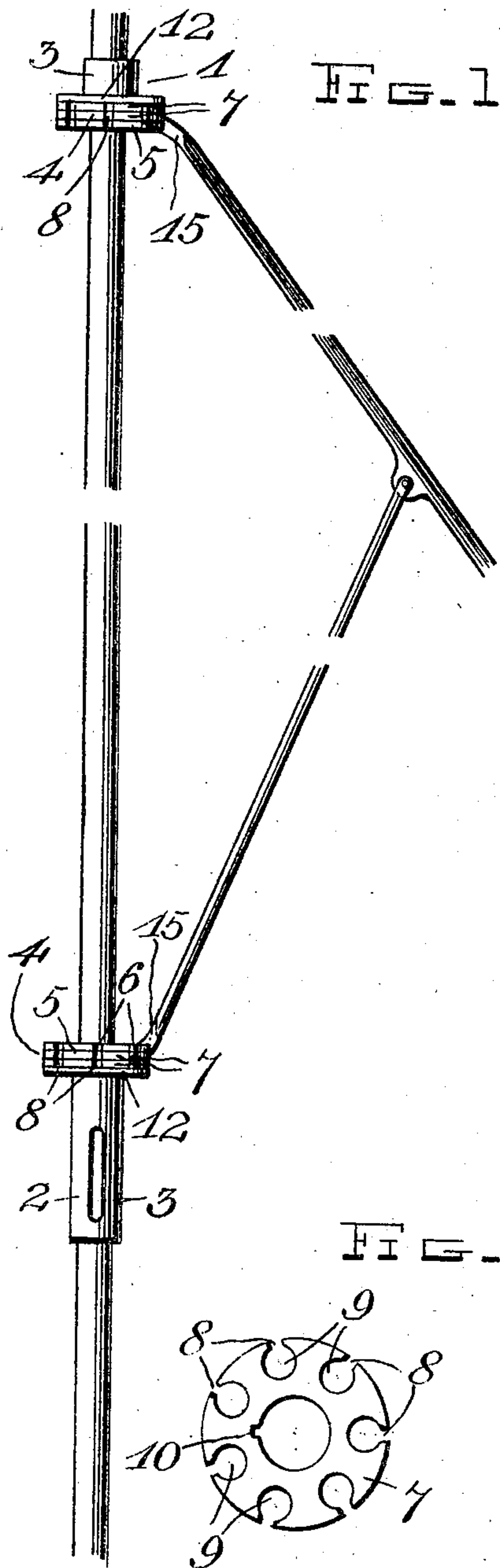


FIG. 4

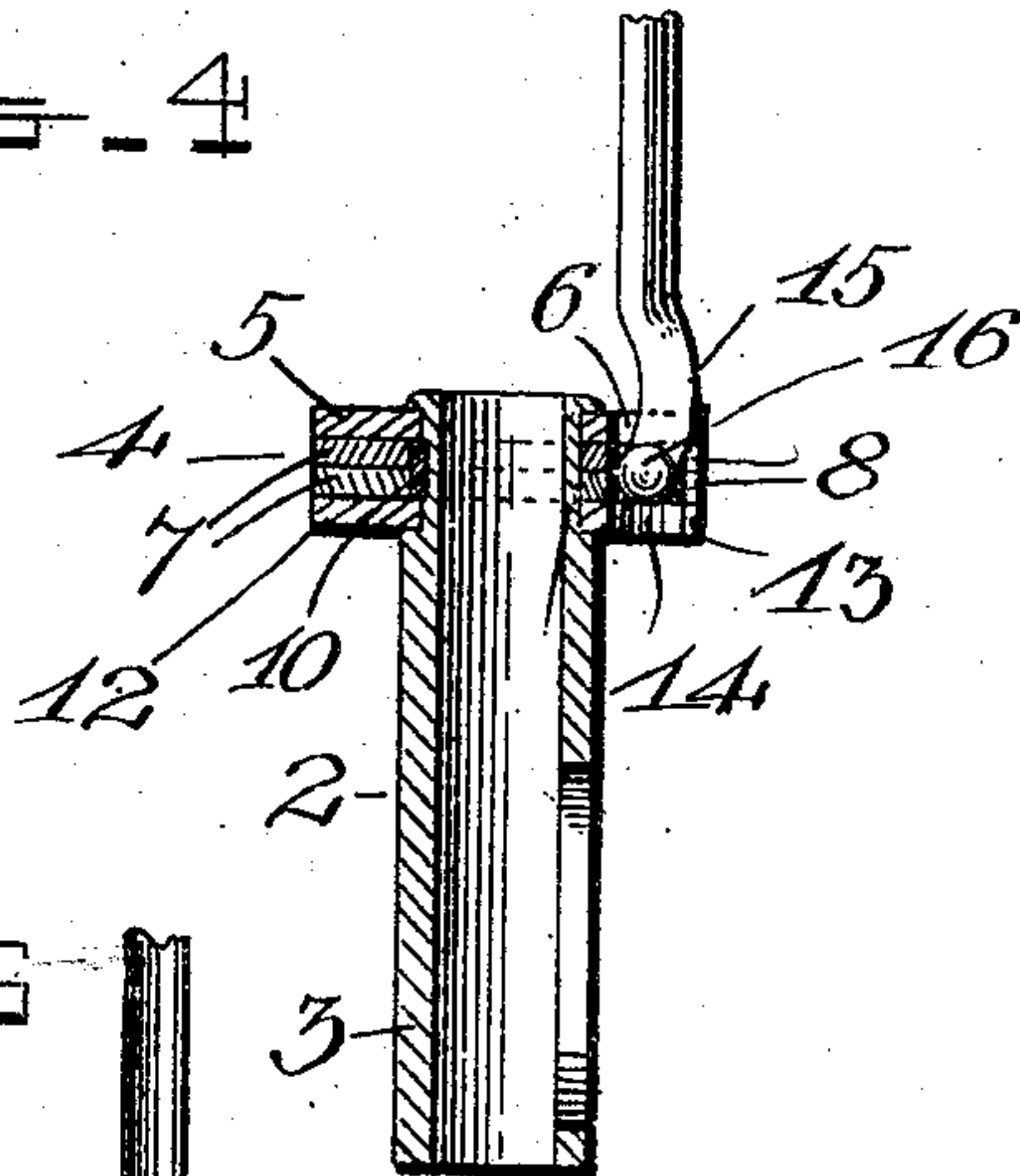


FIG. 6

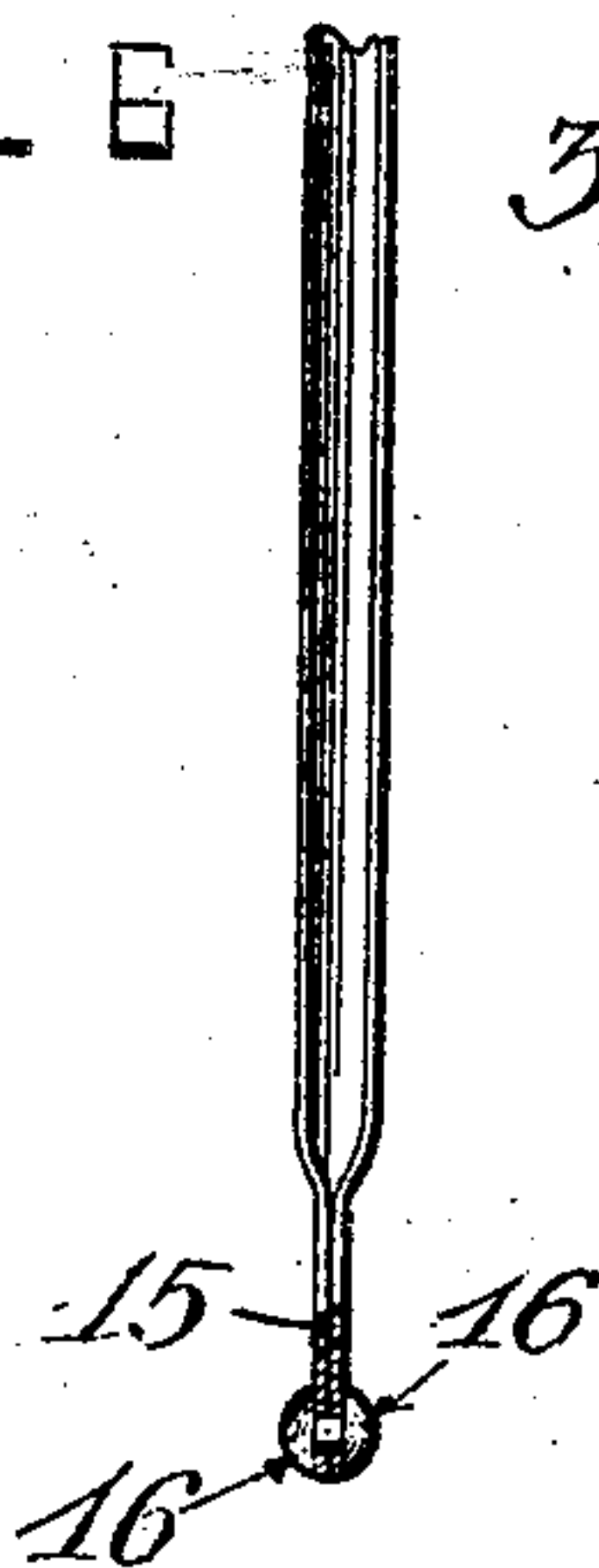


FIG. 5

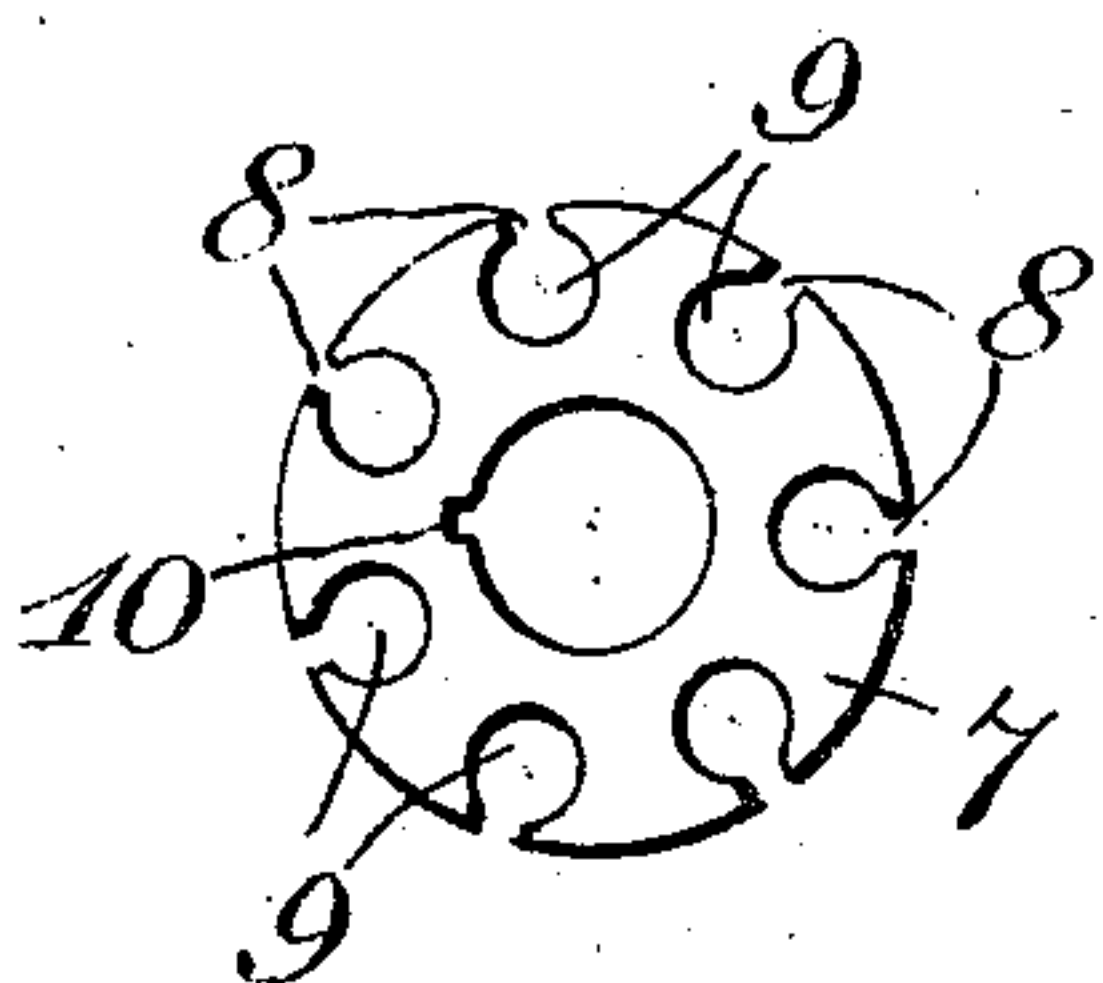
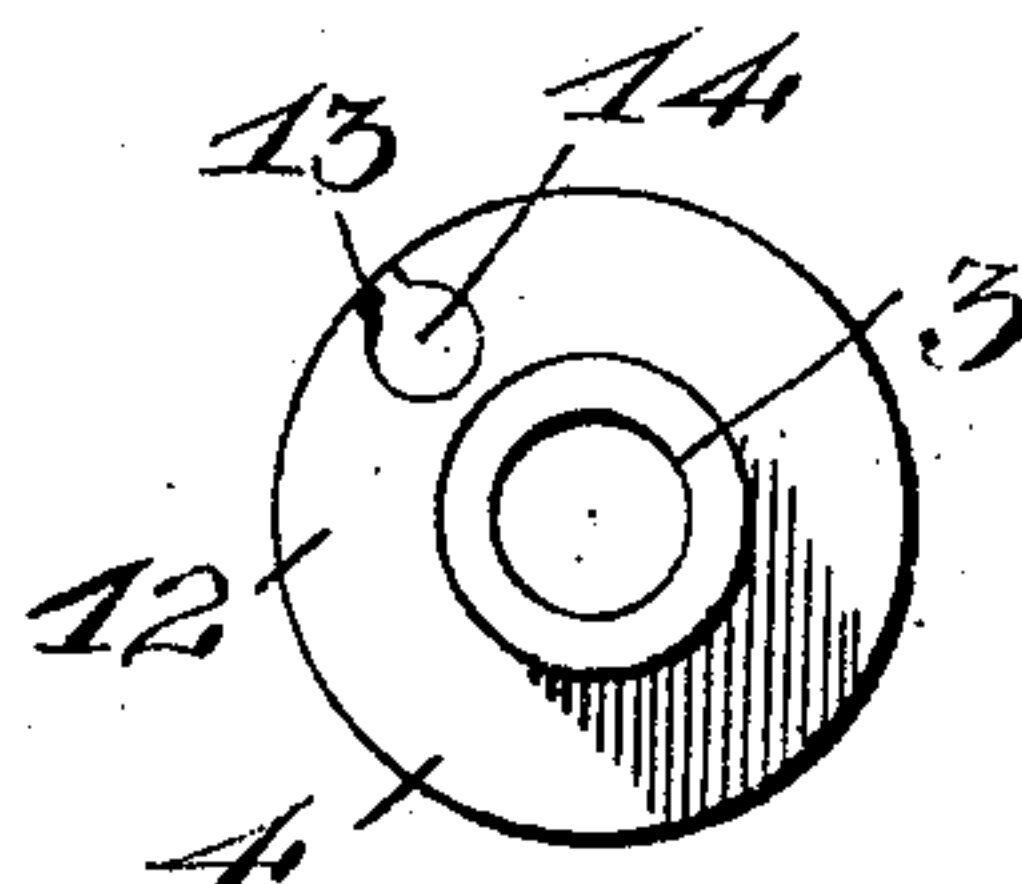


FIG. 3



Witnesses
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UNITED STATES PATENT OFFICE.

CLYDE MACMILLAN, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO
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UMBRELLA RUNNER OR NOTCH.

No. 819,238.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed July 6, 1905. Serial No. 268,331.

To all whom it may concern:

Be it known that I, CLYDE MACMILLAN, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Umbrella Runners or Notches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in umbrella notches or runners.

The object of the invention is to provide a notch or runner by means of which the ribs or braces of the umbrella may be quickly applied to or removed from the umbrella-stick and whereby one or more of said ribs or braces may be removed without disturbing the rest of the ribs or braces.

A further object is to provide a notch or runner of this character which will be simple, strong, and durable in construction, efficient in operation, and well adapted to the purpose for which it is designed.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of an umbrella-stick having applied thereto a notch or runner constructed in accordance with the invention and showing one rib and brace connected thereto. Fig. 2 is a perspective view of the runner removed from the stick. Fig. 3 is a bottom plan view of the same. Fig. 4 is a vertical sectional view thereof, the parts being arranged in position to permit the removal of a brace. Fig. 5 is a plan view of one of the intermediate sections of the runner-head, showing the formation of the recesses to receive the ends of the brace; and Fig. 6 is a detail view showing the formation of the engaging ends of the braces and ribs.

Referring more particularly to the drawings, 1 denotes an umbrella-notch, and 2 denotes a runner, said runner and notch being similar in construction and each consisting of a sleeve 3, on one end of which is arranged a head 4. The head 4 consists of an inner plate 5, in the edge of which is formed a series of

radially-projecting slots 6. Adjacent to the inner plate 5 is arranged a pair of intermediate plates 7, said plates being of counterpart construction and having formed in their edges a series of radially-projecting slots 8, which terminate in recesses or sockets 9. The plates 7 are arranged on the sleeve 3, so that the slots 8 and recesses or sockets 9 therein will be coincident or in alinement with each other. The plates 5 and 7 may be rigidly secured to the sleeve in any suitable manner, but are here shown as being provided with a notch 10, which is adapted to be engaged with a feather or spline formed on the outer wall of the sleeve 3, thereby locking the said plates against rotation on said sleeve.

On the sleeve 3 adjacent to the outer side of the plates 7 is arranged an outer locking-plate 12, said plate being revolubly mounted on the sleeve 3. Between the plate 12 is formed a slot 13, which terminates in a socket or recess 14, said socket and slot corresponding to the sockets and slots formed in the intermediate plates 7 and are adapted upon the revolution of the plate 12 to be brought into alinement with any one of the sockets and slots of said intermediate plates, as will be understood. That portion of the sleeve 3 upon which the head 4 is arranged is somewhat reduced in size from the disengaged portion of the sleeve, thereby forming a shoulder against which the plate 12 is adapted to bear. The inner end of the sleeve is preferably upset on the inner plate 5, thereby providing means for holding said head 4 in place on the sleeve.

In order that the ends of the ribs and braces may be engaged with and retained in the slots and recesses of the plates 5 and 7, said ends of the ribs and braces are provided with flattened slightly-curved projections 15, at the ends of which on each side thereof are formed laterally-projecting rounded offsets 16, which are adapted when said flattened ends are engaged with the slots in the plates 7, to enter the sockets or recesses in said plates, thereby hingedly connecting the ends of the ribs or braces with the head 4 of the sleeve. The slots in the inner plates 5 permit said ribs or braces to be swung inwardly toward the rod or stick of the umbrella.

In applying the ribs or braces to the notches or runners the locking-plate 12 is

turned to bring the notch and slot therein into alinement with the slots and notches in the intermediate plates 7, at which time the flattened ends of the ribs or braces may be inserted into said slots and sockets, after which the plate 12 is turned into alinement with another of said slots and sockets to permit the application of another rib or brace. After all of the ribs and braces have been thus applied the locking-plate is turned to bring the slot and notch therein between the slots and sockets of the intermediate plates, thus preventing the removal or disengagement of the ends of the ribs or braces from the heads 4. To remove or disengage the ribs or braces from the notches or runners, the locking-plate thereon is turned to bring the slot and socket therein opposite to the slot and socket of the intermediate plates, with which said rib or brace to be removed is attached, thereby permitting the removal of said rib or brace without disturbing the rest of the ribs or braces of the umbrella.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various 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 my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a runner or notch for umbrellas, the combination with a sleeve, of a head arranged thereon, said head comprising an inner plate having formed in its periphery, a series of radially-disposed slots, intermediate plates having formed therein a series of radially-disposed slots terminating in recesses or sockets, and an outer locking-plate revolubly mounted on said sleeve to open and close the slots and recesses in said intermediate plates, substantially as described.

2. In a runner or notch for umbrellas, the combination with a series of ribs having spherical ends, of a sleeve, a head arranged thereon, said head comprising an inner plate having formed in its periphery a series of ra-

dially-disposed slots, intermediate plates having formed therein a series of radially-disposed slots terminating in recesses or sockets, and an outer locking-plate revolubly mounted on said sleeve, said locking-plate having formed therein a radially-disposed slot and recess to normally prevent the withdrawal of said spherical heads, said locking-plate being adjustable to permit the removal of said heads, substantially as described.

3. In a runner or notch for umbrellas, the combination with a sleeve, of a head arranged thereon, said head comprising an inner plate having formed in its periphery a series of radially-disposed slots, intermediate plates having formed therein a series of radially-disposed slots terminating in recesses or sockets, an outer locking-plate revolubly mounted in said sleeve, said locking-plate having formed therein a radially-disposed slot or recess corresponding to and adapted to be brought into alinement with the slots and recesses in said intermediate plate, and ribs and braces having ball-bearing ends to engage the notches and recesses in said plates, substantially as described.

4. In a runner or notch for umbrellas, the combination with a sleeve, of a head arranged thereon, said head comprising an inner plate having formed in its periphery a series of radially-disposed slots, intermediate plates having formed therein a series of radially-disposed slots terminating in recesses or sockets, means to hold said inner and intermediate plates against rotation on said sleeve, an outer locking-plate revolubly mounted on said sleeve, said plate having formed therein a laterally-disposed slot and recesses corresponding to and adapted to be brought into alinement with the slots and recesses in said intermediate plates and ribs and braces having ball-bearing ends to engage the notches and recesses in said plates, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLYDE MACMILLAN.

Witnesses:

JOHN W. FORNEY,
ARCHER HOPKINS.