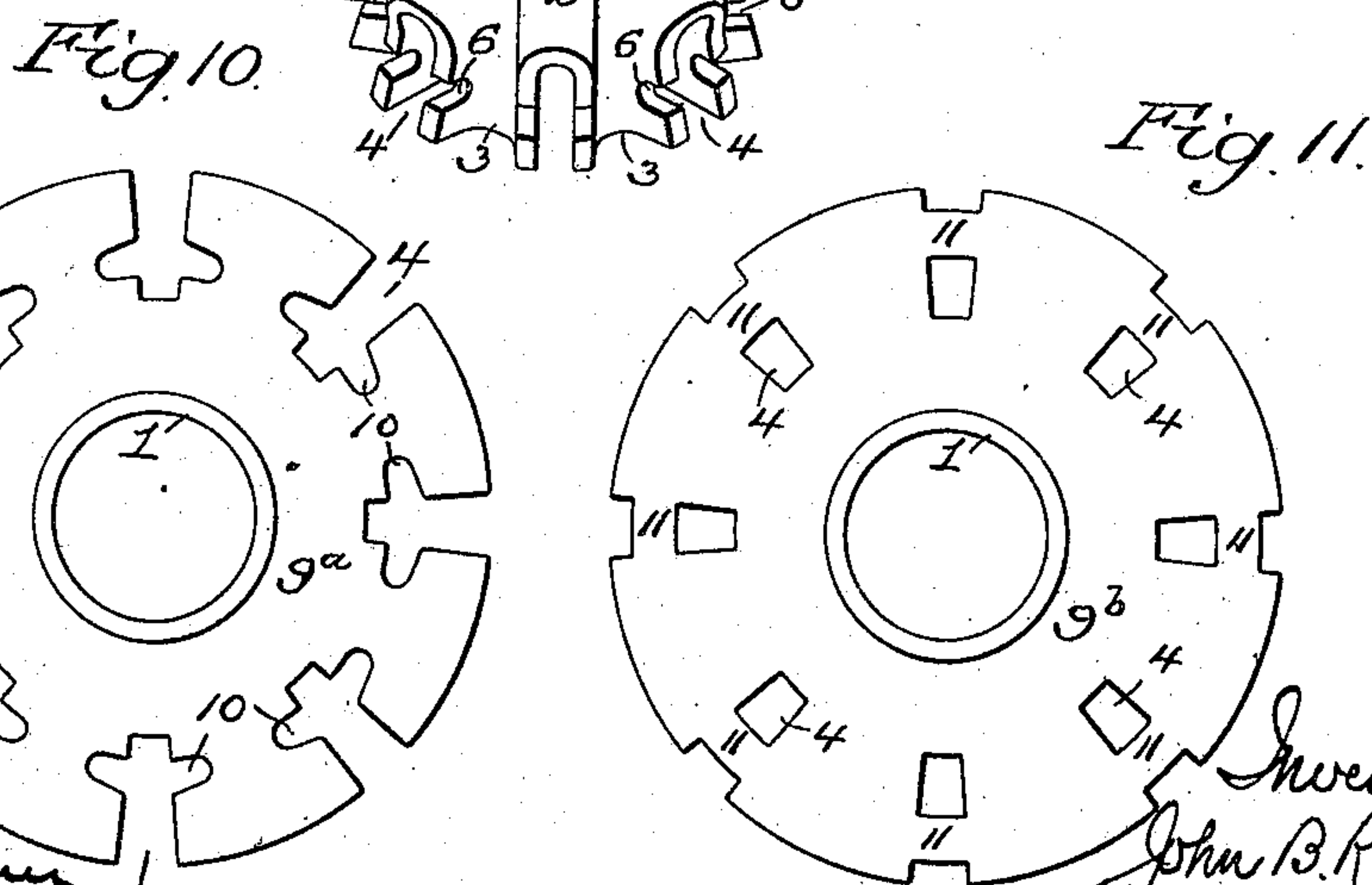
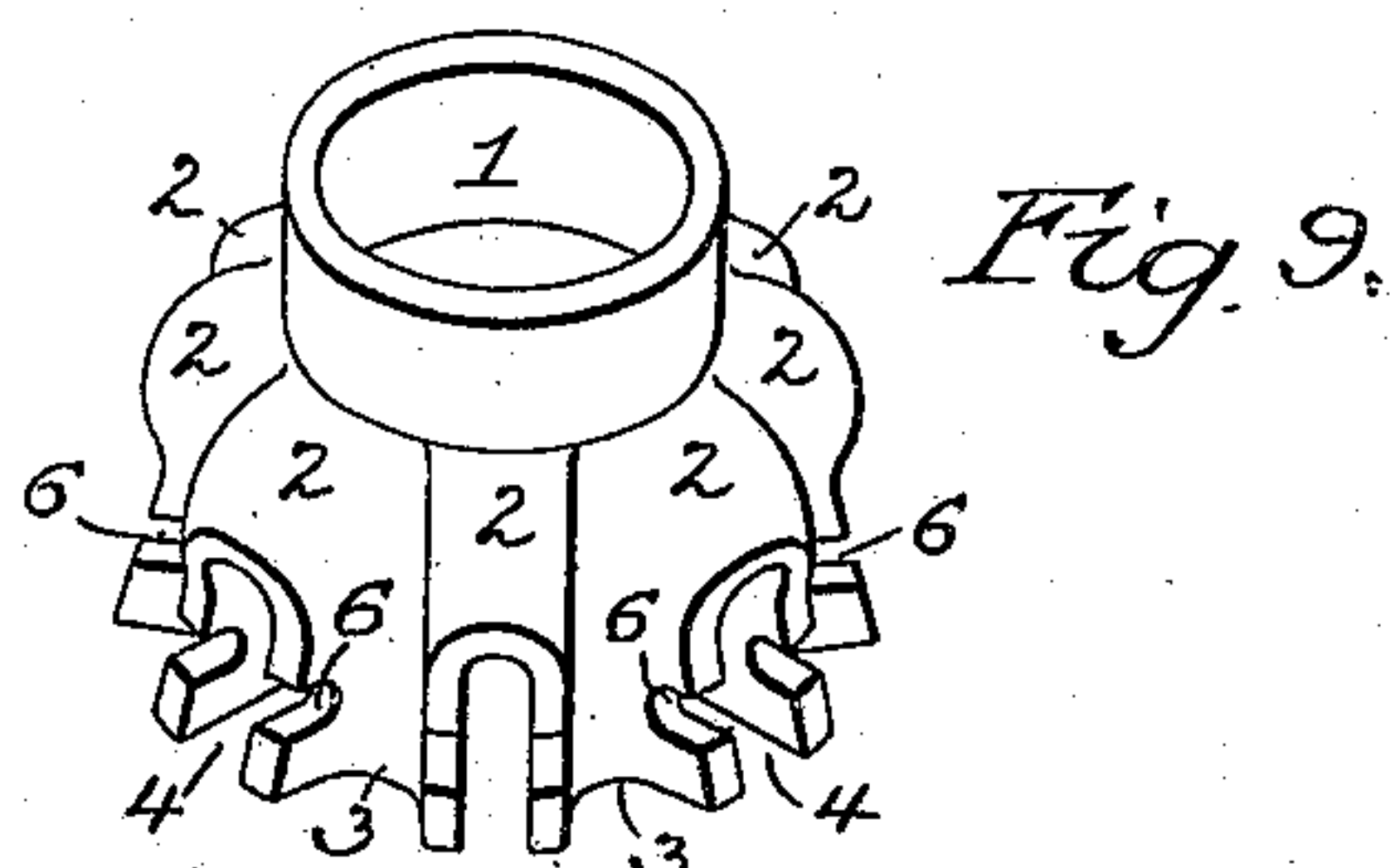
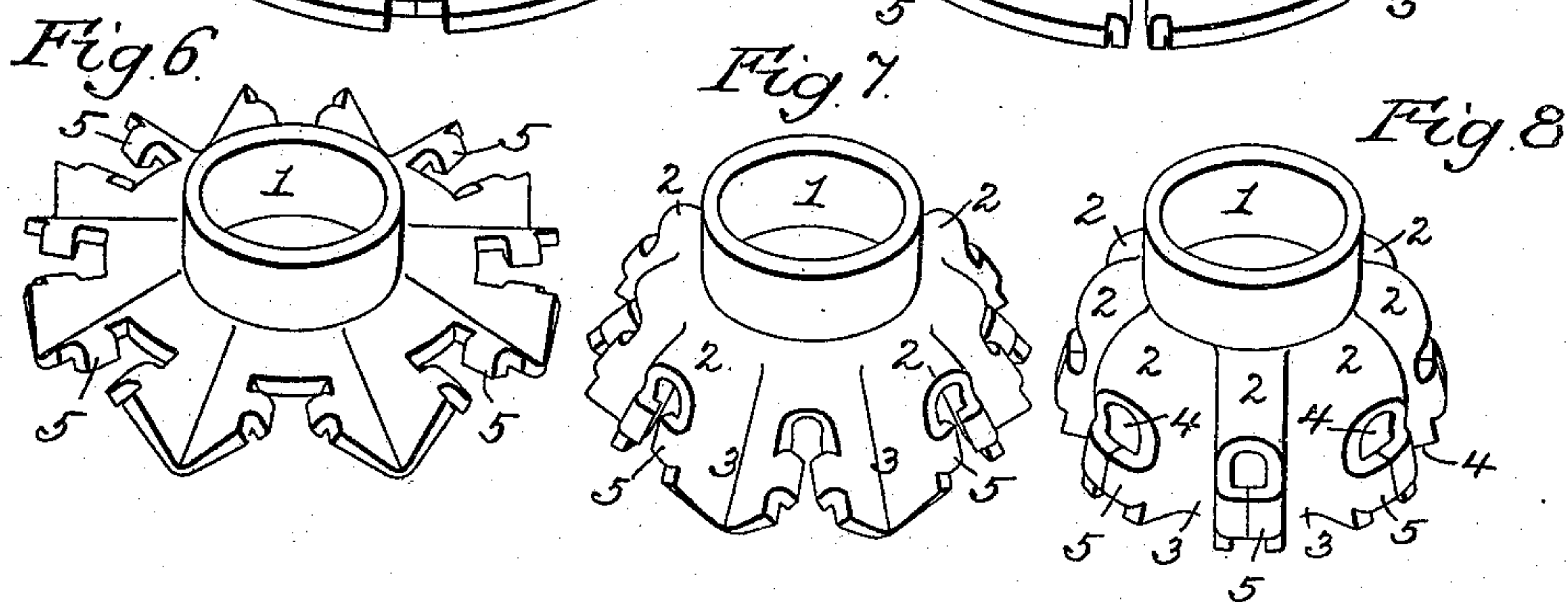
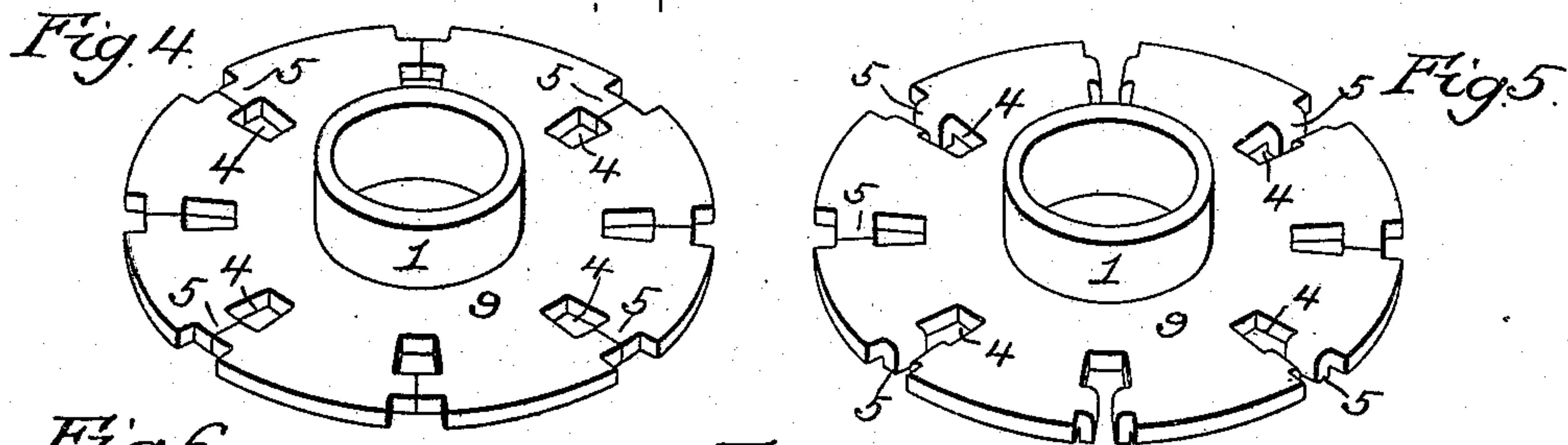
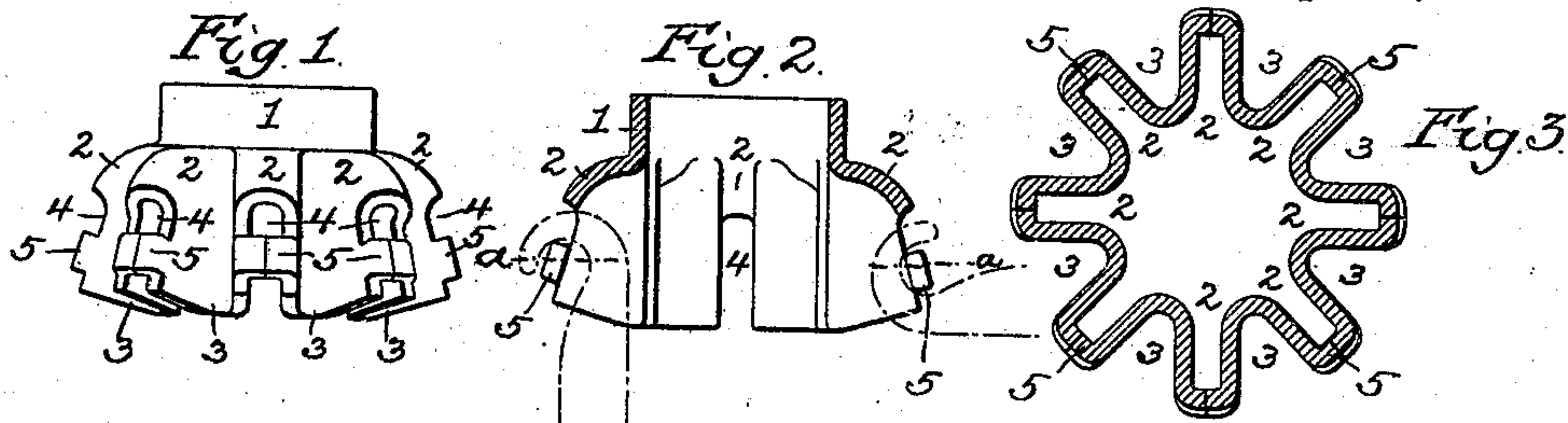


J. B. RIEHL.  
 NOTCH OR RUNNER HEAD FOR UMBRELLAS AND PARASOLS.  
 APPLICATION FILED SEPT. 16, 1908.

919,954.

Patented Apr. 27, 1909.



Witnesses  
 Hamilton D. Turner  
 Harry L. Smith.

Inventor  
 John B. Riehl  
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 Smith & Bagley



# UNITED STATES PATENT OFFICE.

JOHN B. RIEHL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO AMERICAN SPECIALTY MANUFACTURING COMPANY, OF DOVER, DELAWARE, A CORPORATION OF DELAWARE.

## NOTCH OR RUNNER-HEAD FOR UMBRELLAS AND PARASOLS.

No. 919,954.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed September 16, 1908. Serial No. 453,338.

*To all whom it may concern:*

Be it known that I, JOHN B. RIEHL, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain  
5 Improvements in Notches or Runner-Heads for Umbrellas and Parasols, of which the following is a specification.

One object of my invention is to so construct a notch or runner head for umbrellas  
10 or parasols that the same can be readily struck-up from sheet steel or other relatively ductile metal by means of dies, a further object being to so construct the notch or runner head that the ribs or stretchers can be hung  
15 thereto without the use of the usual pivot wire. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view, on an enlarged scale, of an umbrella notch or runner  
20 head constructed in accordance with my invention; Fig. 2 is a vertical sectional view of the same showing by dotted lines the upper ends of a pair of ribs hung thereto; Fig. 3 is a  
25 horizontal section on the line *a—a*, Fig. 2; Figs. 4, 5, 6, 7 and 8 are views showing the successive stages in the manufacture of an umbrella notch or runner head in accordance with my invention; Fig. 9 is a perspective  
30 view of a modified form of my improved notch or runner head; Fig. 10 is a view of the blank from which said modified form of notch or runner head is produced, and Fig. 11 is a view of a modified form of blank for producing a notch of the type shown in Fig. 1.

The notch shown in Fig. 1 has a neck 1 for attachment to the stick of the umbrella or parasol, and from this neck project hollow ribs 2 with intervening open grooves 3,  
40 "open" in this respect meaning that the grooves are not closed at the bottom of the notch. In the outer portion of each of the ribs 2 is a slot 4, which slot is bridged by means of inwardly bent fingers 5 projecting  
45 from the sides of the rib, said bridge constituting a pivot member upon which to hang the hooked upper end of the rib, as shown in Fig. 2, this method of construction rendering unnecessary the use of the usual pivot wire,  
50 or the drilling of a hole through the end of the rib for the reception of such pivot wire. Certain features of my invention are, however, applicable to notches to which the ordinary ribs are hung by means of a pivot wire, such  
55 notch being shown, for instance, in Fig. 9, in

which case the slot in the rib 2 is not obstructed and the side walls of said rib have notches 6 for the reception of the pivot wire.

A notch of the character shown in Figs. 1 and 2 is made from a circular blank 9 having  
60 the neck 1 struck-up therefrom, as shown in Fig. 4, this blank having formed in it the radial slots 4, with the fingers 5 projecting from opposite sides of the same. These  
65 fingers 5 are then bent downwardly, as shown in Fig. 5, and the blank is then subjected to the action of dies which support those portions of the blank in line radially with the slots 4 and permit of the bending  
70 downward of the intervening portions of the blank, as illustrated in Figs. 6, 7 and 8, which represent the successive stages in the formation of the notch. The bending down  
75 of the intervening portions of the blank forms the open grooves 3, and the same operation causes the tongues 5 to swing toward each other to form the bridges upon which the hooked ribs are hung.

In the production of the notch shown in Fig. 9 a blank such as shown in Fig. 10 is  
80 used. In this blank the slots 4 have notches 10 formed in their opposite sides. By reason of the open groove between the ribs 2 the metal of which the blank is composed can be readily shaped by means of dies with-  
85 out excessive strain upon any part of the metal such as would be likely to disrupt or fracture it. When the metal is of a sufficiently ductile character the bridges across the slots 4 may be continuous, as shown for  
90 instance at 11, in Fig. 11, instead of being composed of oppositely projecting fingers, the displacement of the metal between the slots failing to exert such strain upon the bridges as to disrupt the same.  
95

My invention is equally applicable to notches and runner heads, all that is necessary in order to adapt a notch to the latter use being to attach to the neck 1 a sheet metal tube of proper length for the runner.  
100

I claim:—

1. A sheet metal notch or runner head for umbrellas or parasols comprising a neck with projecting hollow ribs thereon separated by open grooves and having their tops closed  
105 and their outer portions slotted for the reception of the swinging portions of the ribs or stretchers.

2. A notch or runner head for umbrellas or parasols comprising a neck with project-  
110



ing ribs thereon, having their outer portions slotted for the reception of the swinging portions of the ribs or stretchers, said slots having bridges integral with the rib which serve  
5 as pivot members for said ribs or stretchers.

3. A notch or runner head for umbrellas or parasols comprising a neck with projecting ribs thereon, separated by open grooves and having their outer portions slotted for  
10 the reception of the swinging portions of the ribs or stretchers, said slots having bridges integral with the rib which serve as pivot members for the ribs or stretchers.

4. A notch or runner head for umbrellas or  
15 parasols comprising a neck with projecting ribs thereon having their outer portions slotted for the reception of the swinging portions of the ribs or stretchers, said slots having bridges which serve as pivot mem-

bers for the ribs or stretchers, and consist  
20 of fingers bent inwardly from the sides of the rib.

5. A notch or runner head for umbrellas or parasols comprising a neck with projecting ribs thereon separated by open grooves and  
25 having their outer portions slotted for the reception of the swinging portions of the ribs or stretchers, said slots having bridges which serve as pivot members for the ribs or stretchers, and consist of fingers bent in-  
30 wardly from the sides of the rib.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOHN B. RIEHL.

Witnesses:

HAMILTON D. TURNER,  
ELSIE FULLERTON.