

No. 719,266.

PATENTED JAN. 27, 1903.

E. S. SHIMER.
CUTTER HEAD.

APPLICATION FILED JULY 22, 1902.

NO MODEL.

Fig. 1.

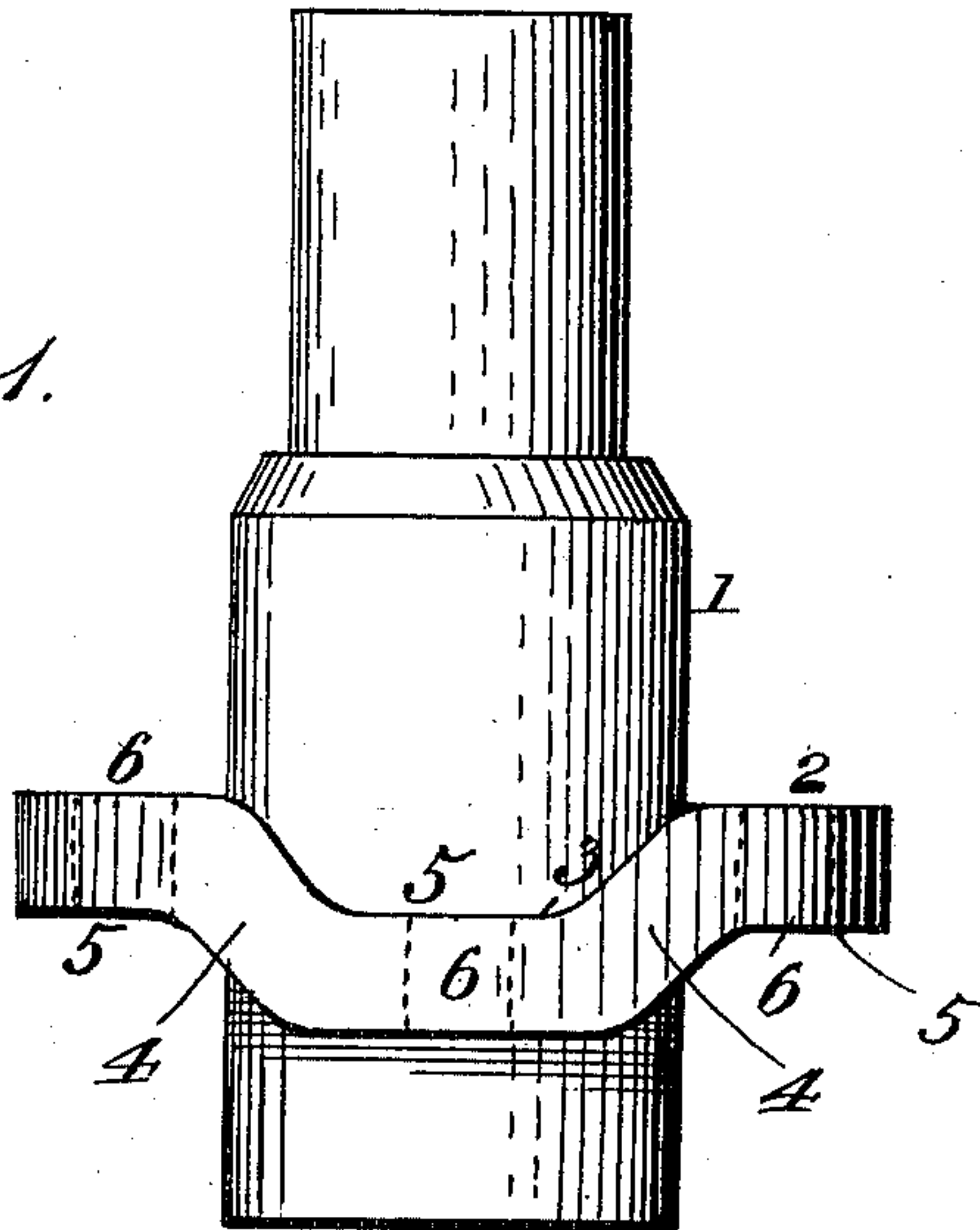


Fig. 2.

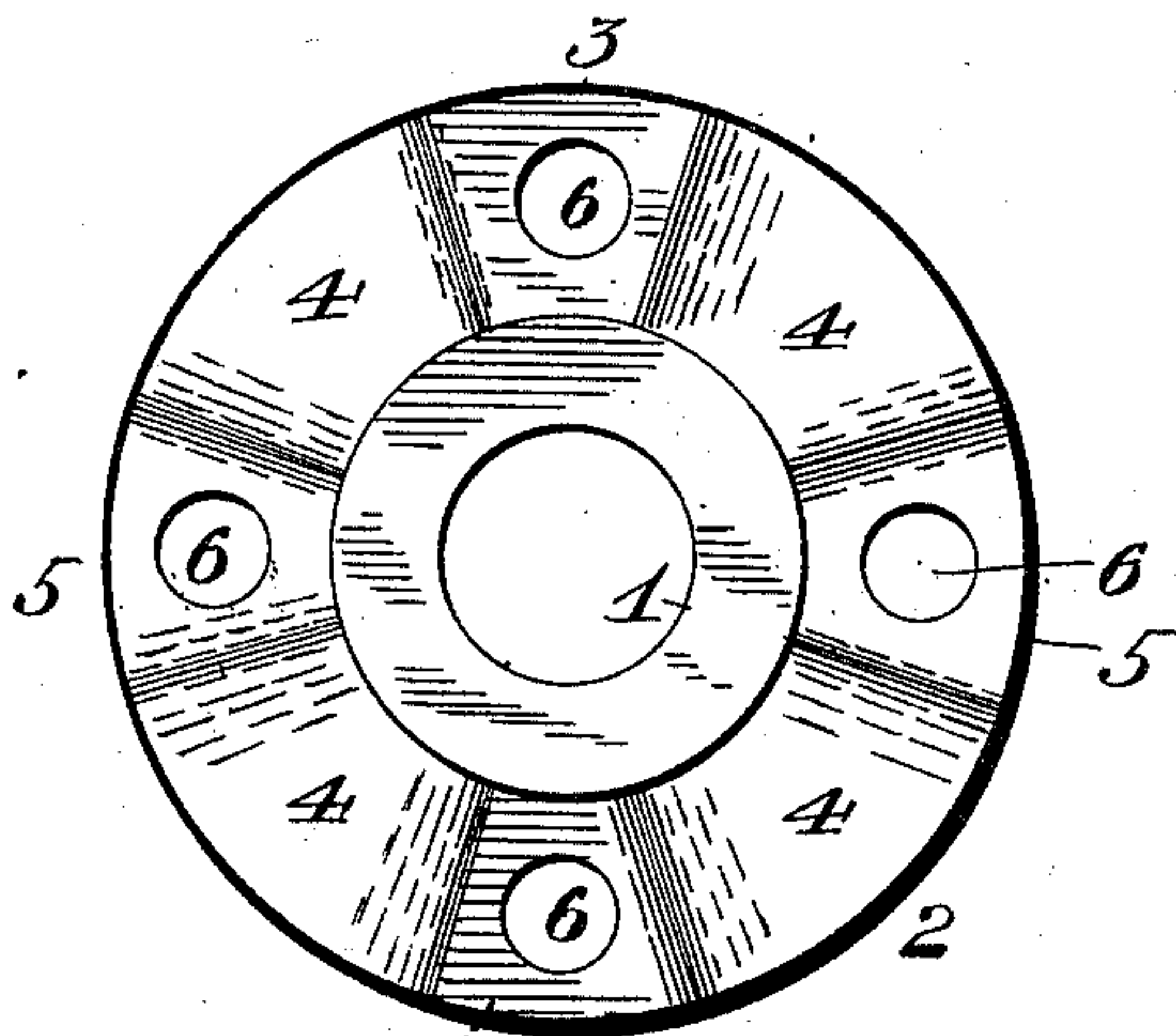
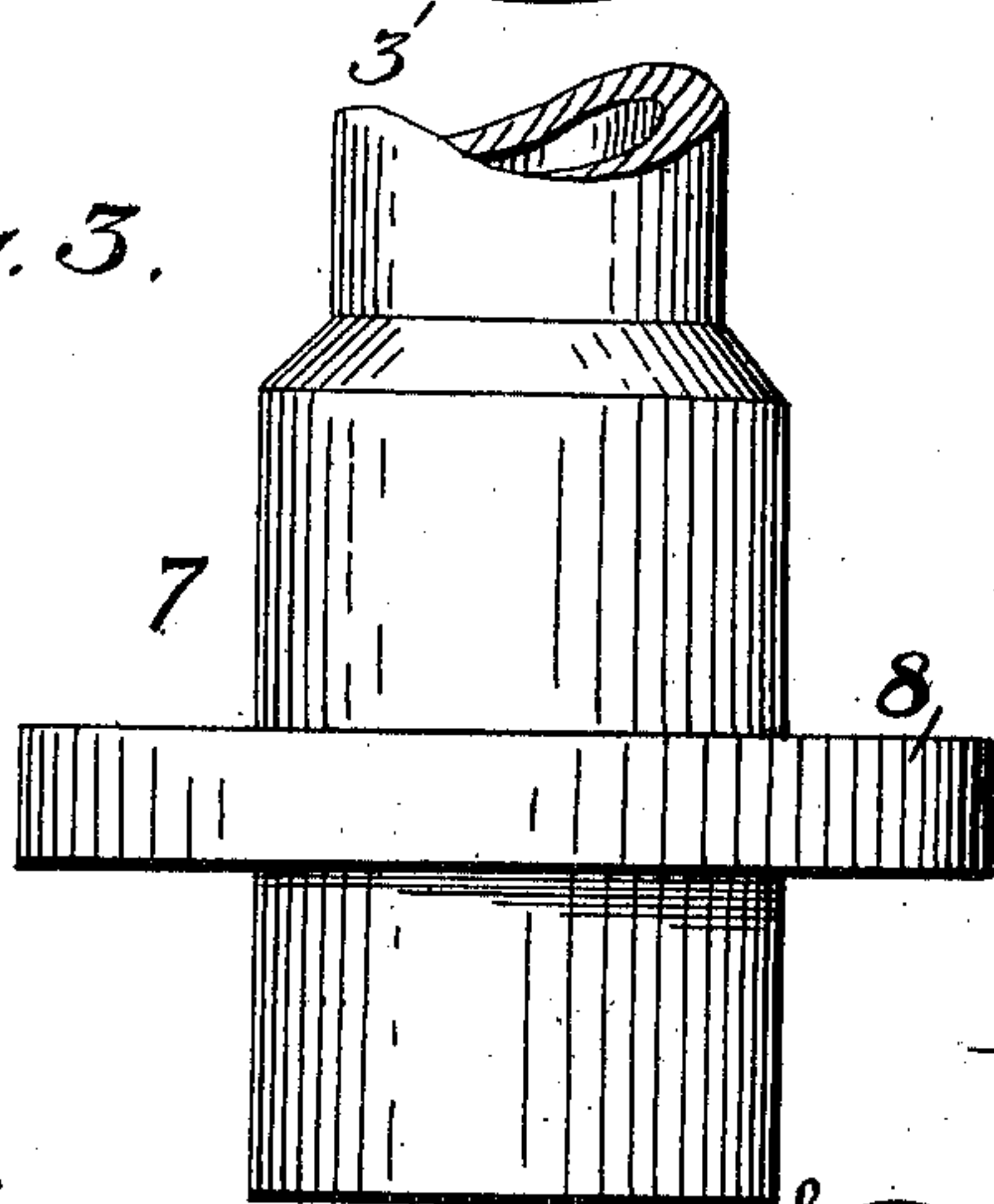


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ELMER S. SHIMER, OF MILTON, PENNSYLVANIA.

CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 719,266, dated January 27, 1903.

Application filed July 22, 1902. Serial No. 116,594. (No model.)

To all whom it may concern:

Be it known that I, ELMER S. SHIMER, a citizen of the United States, residing at Milton, in the county of Northumberland and State of Pennsylvania, have invented new and useful Improvements in Cutter-Heads, of which the following is a specification.

My invention relates to improvements in cutter-heads of the Shimer type; and the object of the same is to construct a device of this character which will have a minimum of superfluous metal therein.

The simple and novel construction employed by me in carrying out my invention is fully described in this specification, and claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a side elevation of my improved head. Fig. 2 is a bottom plan of the same. Fig. 3 is a side elevation of the casting out of which my head is formed.

Like numerals of reference designate like parts in the different views of the drawings.

The numeral 1 designates a hub bearing a flange 2, which is crimped or undulating and comprises alternate plane and curved portions 3 and 4, respectively. One face 5 of each of the plane portions 3 lies in the same plane of revolution of the cutter-head, and they are thus adapted to form seats for bits, (not shown,) secured by bolts passing through apertures 6 in the seats. The bit-seats 5 are located diametrically opposite each other in pairs. The members of each pair lie on the

same side of the flange 2, but alternate seats lie on opposite sides of the flange.

In forming a flange 2 bearing bit-seats, as above described, a forging 7 is first made, having a plane circular flange 8 of uniform thickness thereon. This forging is then heated and crimped by a die under heavy pressure, after which the apertures 6 are drilled therein. By this method of construction a great saving of material is effected without weakening the cutter-head in the least.

I do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

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

1. A cutter-head comprising a hub bearing a flange of substantially uniform thickness having alternate offset portions forming bit-seats and connected by gradually-deflecting portions, substantially as described.

2. A cutter-head comprising a hub bearing a flange of uniform thickness having laterally-offset truly radial portions continuous therewith, substantially as described.

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

ELMER S. SHIMER.

Witnesses:

W. H. BECK,
H. A. KERR.