

B. HENRIKSON.
CUTTER HEAD.
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1,057,425.

Patented Apr. 1, 1913.

Fig. 1.

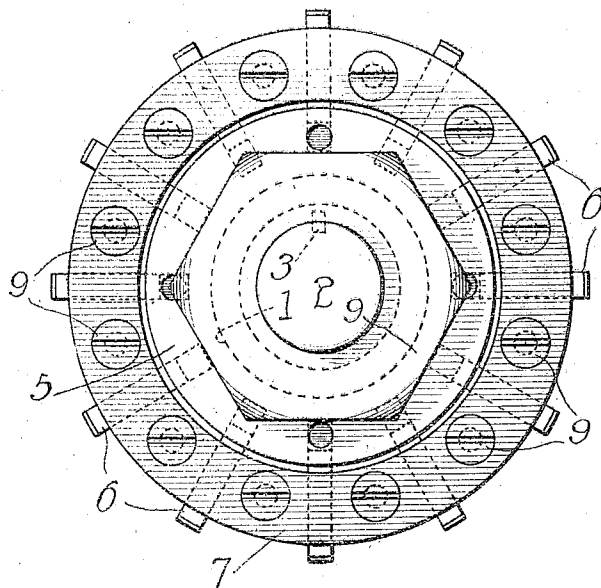
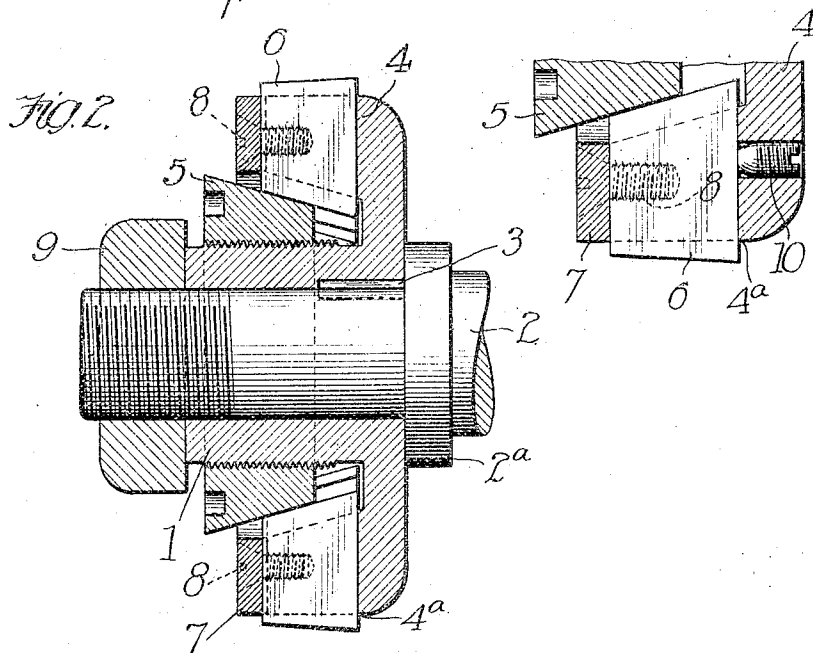


Fig. 3.



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CUTTER-HEAD.

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To all whom it may concern:

Be it known that I, BERNHARDT HENRIKSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cutter-Heads, of which the following is a specification.

My invention relates to cutter-heads and the object thereof is to provide a simple, efficient and reliable construction particularly capable of enabling a plurality of radially disposed cutters to be adjusted in unison and to be securely held in such position after such adjustment.

In the drawing, Figure 1 is an end elevation of my improved cutter-head; Fig. 2 a central vertical section thereof and Fig. 3 a modification of a detail of construction as to means for holding the cutter-heads in place.

Referring to the present embodiment of my invention as illustrated in Figs. 1 and 2 of the drawing, the cutter-head comprises a hub portion 1 mounted to rotate with the arbor 2 by reason of the provision of the key 3 and the same also comprises a body portion 4 which extends parallel with and overhangs the hub portion thereby leaving a substantially annular space between the hub and the inner surface of said body portion to receive the adjusting collar 5. This collar is screw-threaded upon the hub and its edge is inclined inwardly complementary to the inner edges of the series of cutters 6. These cutters are arranged within a series of radial slots 4^a in the body portion of the cutter-head and are open on three sides, the same normally projecting slightly beyond the outer surface or periphery of the cutter-head for cutting or boring purposes. The outward position of the cutter-heads is determined by the adjusting collar 5. When this collar is screwed inwardly, that is to the right in Fig. 2, the cutters 6 are moved outwardly in unison and when the same are adjusted to the proper extent they are clamped or held in such position by means of the ring 7 which is secured to the cutter-head by means of the series of screws 8 extending into the side of the body portion of such cutter-head. In practice the outer sides of the cutters project slightly beyond the adjacent side or surface of the cutter-head with the result that the clamping ring 7 will abut or contact with such sides or edges of the cutters. The cutter-head is held in position

on the arbor and against the collar 2^a thereof by means of the nut 9 screwing upon the arbor and bearing against the outer or left-hand end of the cutter-head.

In Fig. 3, I have shown an additional means supplementary to the clamping ring 7 for holding the cutters in place, the same comprising a series of set screws 10 screwing through the cutter-head and adapted to bear against the right-hand edge of the cutters, one of the set screws being provided for each cutter. However, these set screws are not necessary and may be dispensed with.

I claim:

1. A cutter comprising a rotatable head having a series of radial slots and provided with an exteriorly screw threaded hub, a series of cutters in the slots, and a collar screw-threaded upon said hub and adjustable thereupon for adjusting said cutters in unison.

2. A cutter comprising a rotatable head having a series of radial slots and provided with an exteriorly screw threaded hub, a series of cutters in the slots, and a collar screw-threaded upon said hub and adjustable thereupon for adjusting said cutters in unison, said collar and cutters having complementary inclined engaging surfaces.

3. A cutter comprising a rotatable head having a series of radial slots, a series of cutters adjustable in said slots and having one side projecting beyond the surface of the head, and a clamping ring secured to said head and bearing against said projecting sides of the cutters to clamp the latter in adjusted position.

4. The combination of a cutter-head comprising a hub portion and a body portion, a part of which is parallel with and overhangs the hub portion, said part having radial slots, a series of cutters in said slots, and means for adjusting said cutters in unison.

5. The combination of a cutter-head comprising a hub portion and a body portion, a part of which is parallel with and overhangs the hub portion, said part having radial slots, a series of cutters in said slots, and a collar screwing upon said hub portion and having an inclined surface adapted to cooperate with the cutters to adjust them in unison.

6. The combination of a cutter-head comprising a hub portion and a body portion, a part of which is parallel with and over-

hangs the hub portion, said part having radial slots, a series of cutters in said slots, means for adjusting said cutters in unison, said cutters projecting slightly as to one of their sides beyond the surface of said body portion, and a clamping ring secured to the latter and adapted to bear against such projecting sides of the cutters.

7. The combination of the arbor 2 having a collar 2^a, a cutter head having a hub portion 1 mounted on the arbor to rotate therewith, a nut 9 screwing on the arbor to force

the head against collar 2^a, said head also having a body portion 4 provided with a series of radial slots, cutters 6 in the slots, an adjusting collar 5 screw-threaded on the hub portion and coöperating with the inner ends of the cutters, and a clamping ring 7 secured to the body portion of the cutter-head for clamping the cutters in place.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."