

No. 822,351.

PATENTED JUNE 5, 1906.

A. J. CORLEY.
ROTARY CUTTER.

APPLICATION FILED JULY 12, 1905.

Fig. 1.

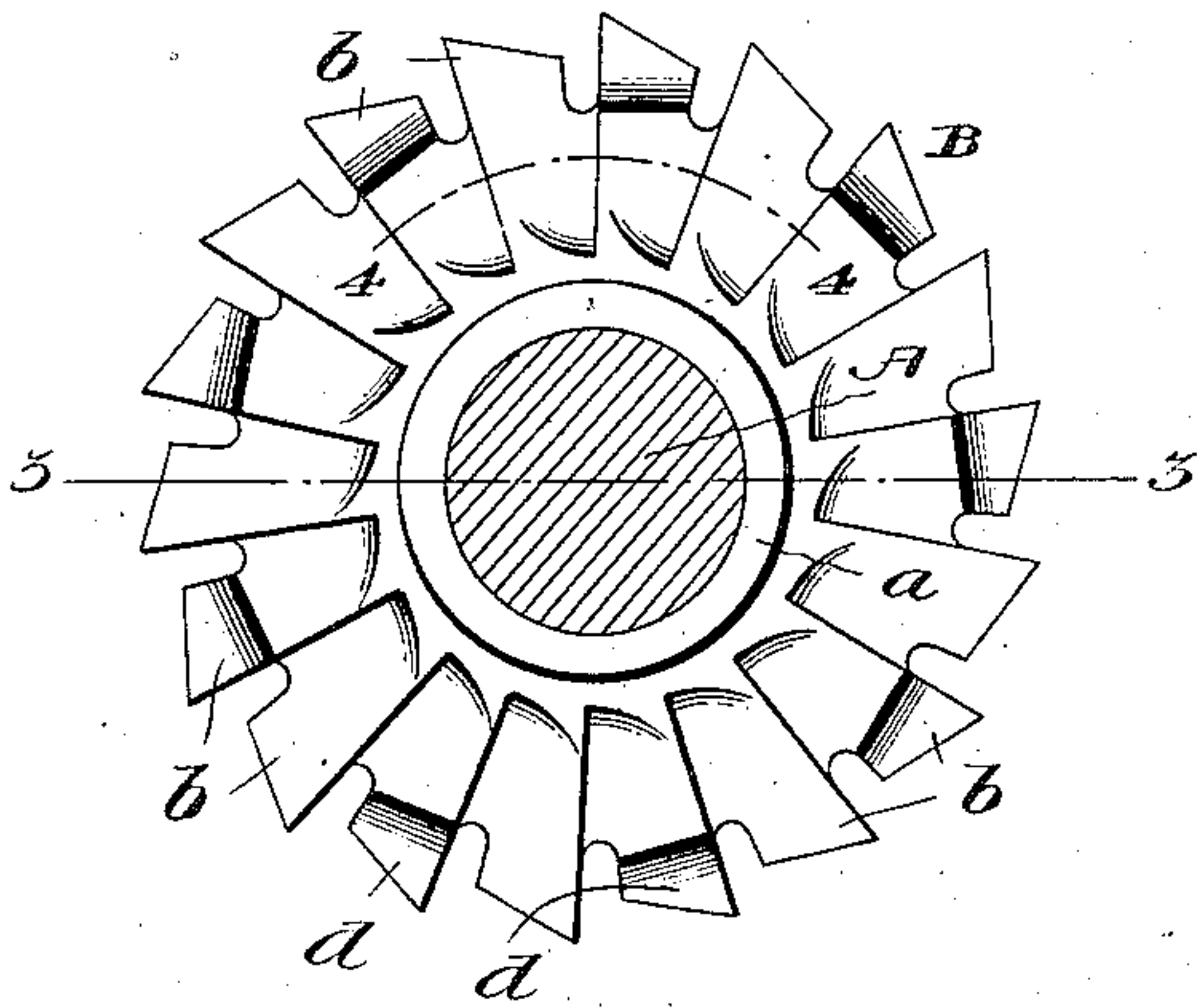


Fig. 2.

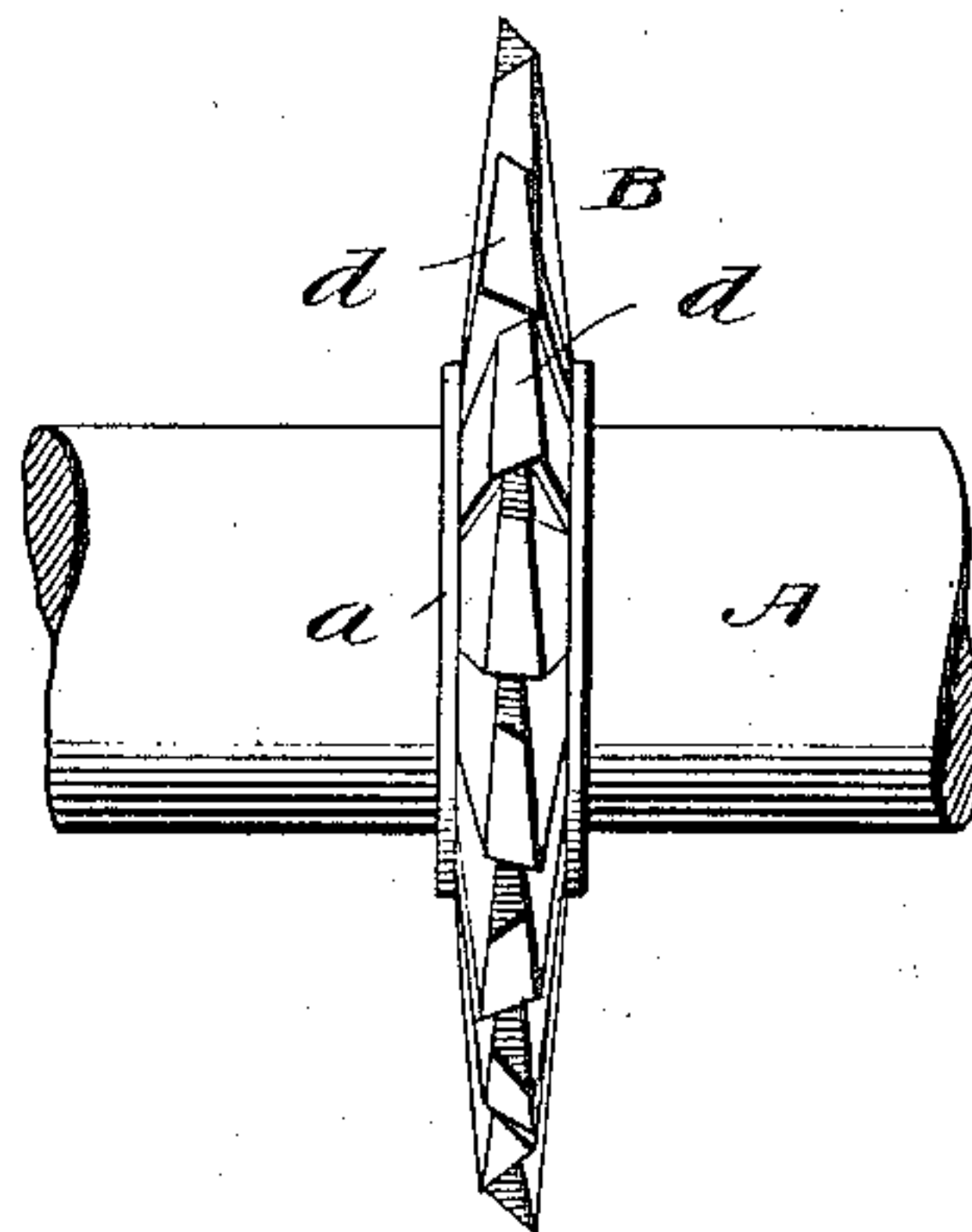


Fig. 3.

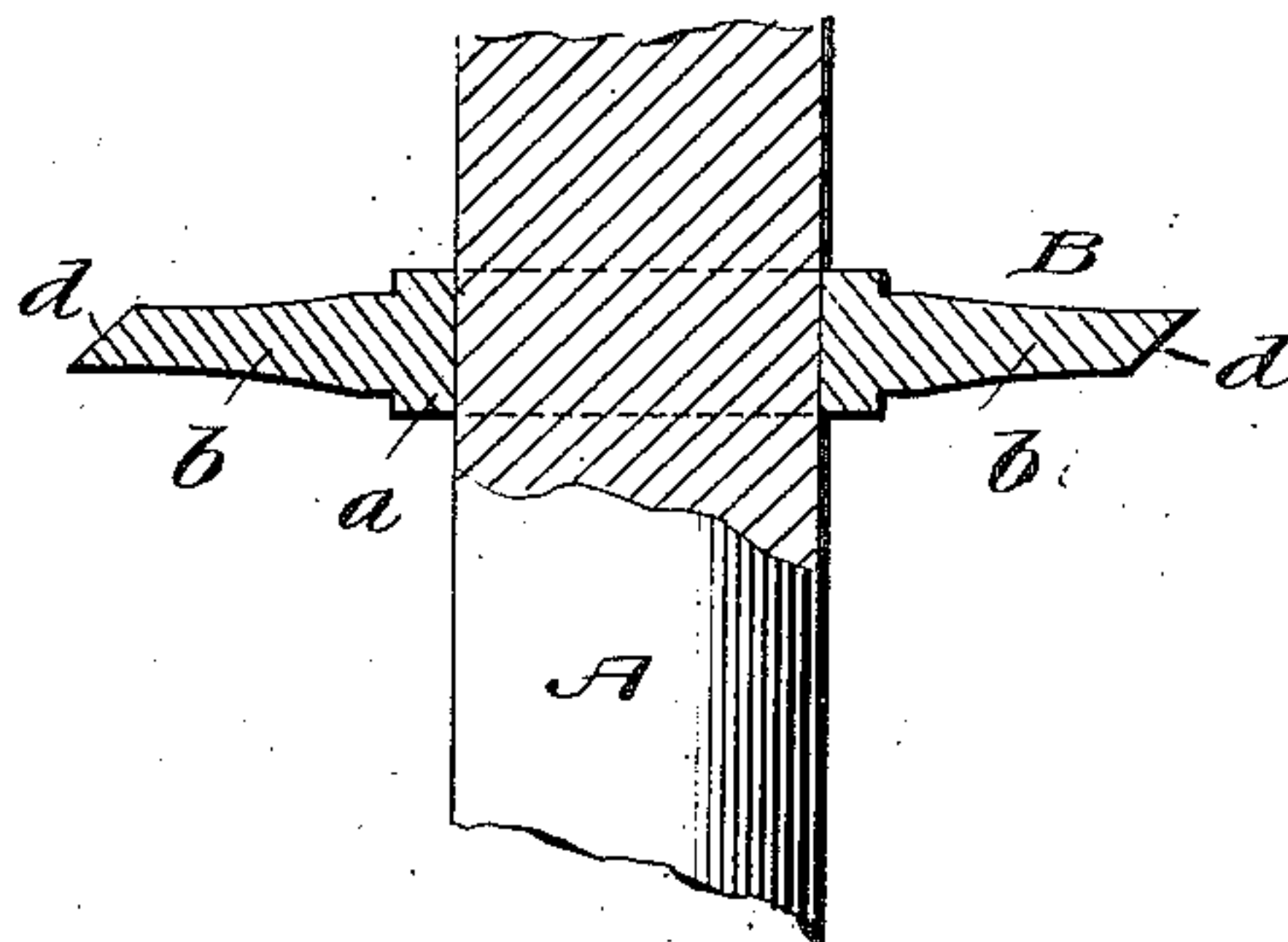


Fig. 4.

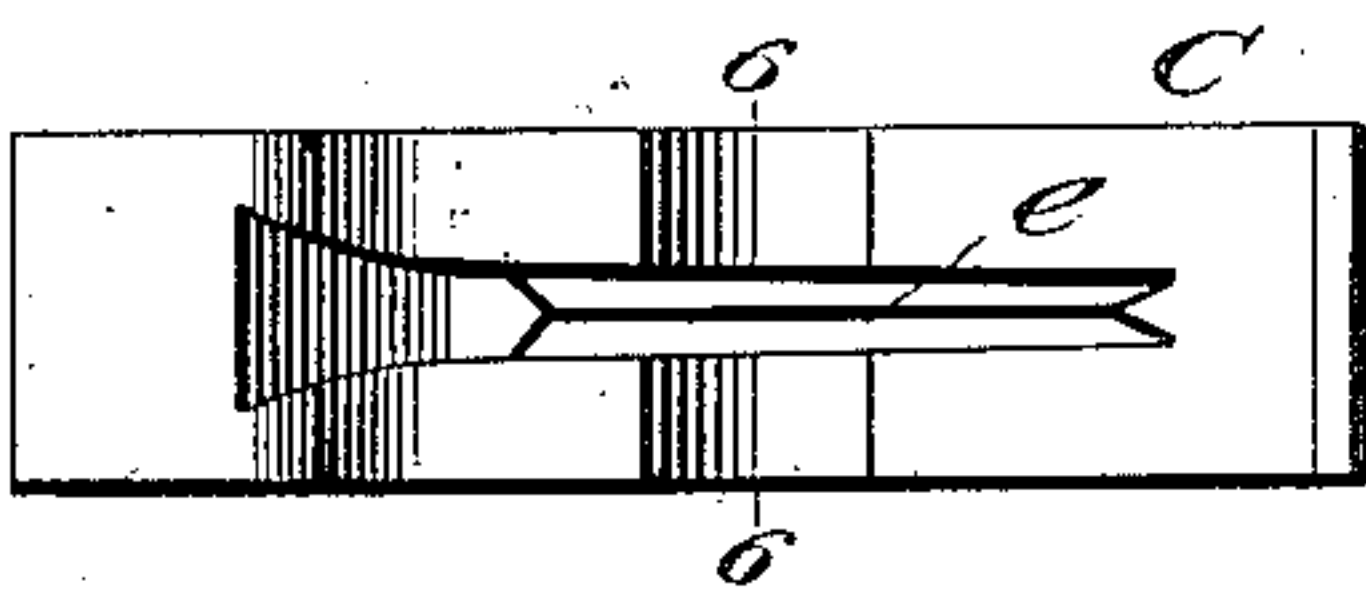


Fig. 5.



Fig. 6.

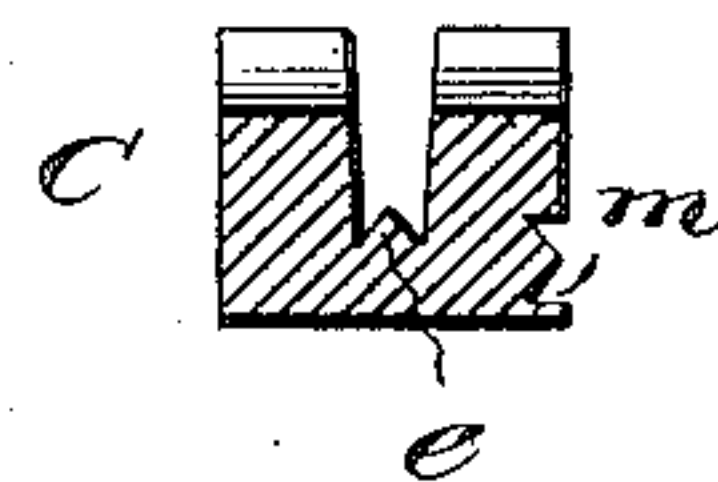
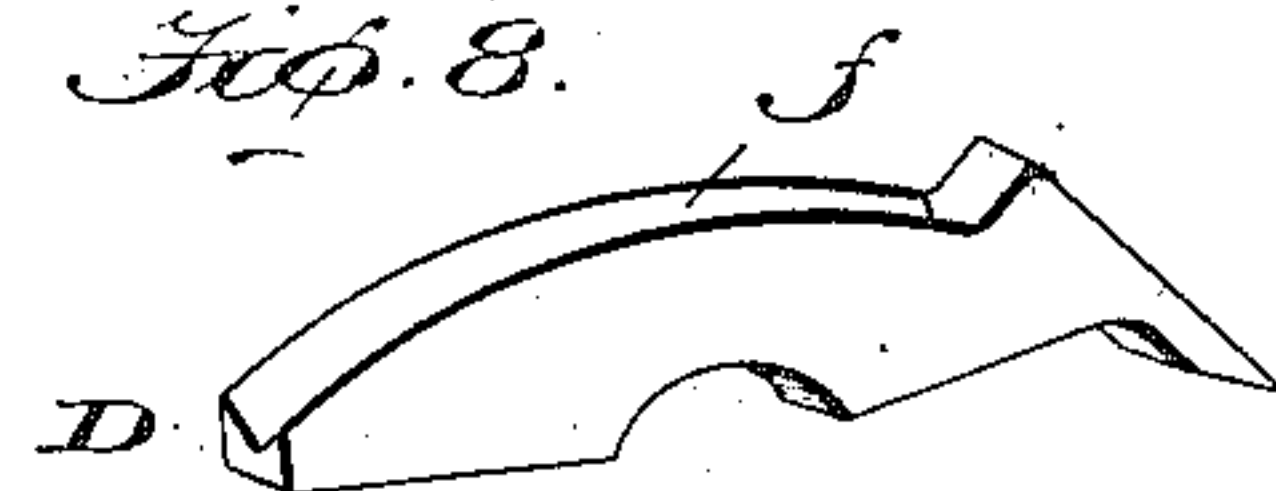


Fig. 7.



Fig. 8.



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Witnesses

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UNITED STATES PATENT OFFICE.

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ROTARY CUTTER.

No. 822,351.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed July 12, 1905. Serial No. 269,363.

To all whom it may concern:

Be it known that I, ANDREW JACKSON CORLEY, a citizen of the United States, residing at East Point, in the county of Fulton and State of Georgia, have invented new and useful Improvements in Rotary Cutters, of which the following is a specification.

My invention pertains to rotary cutters; and it contemplates the provision of a durable rotary cutter designed more especially for expeditiously sinking in a finished manner dies to be used in forging the inserted chisel-bit now generally employed in saws.

The invention also contemplates the provision of a cutter adapted to be used to advantage in cutting smooth ways in drop-hammers, lathes, planers, &c.

With the foregoing in mind the invention will be fully understood from the following description and claim when taken in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my novel cutter in position on an arbor, which is shown in transverse section. Fig. 2 is a front elevation of the same. Fig. 3 is a diametrical section taken in the plane indicated by the line 3 3 of Fig. 1. Fig. 4 is a detail transverse section taken on the curved line 4 4 of Fig. 1. Fig. 5 is a plan view of the die which the cutter is adapted to sink. Fig. 6 is a transverse section taken in the plane indicated by the line 6 6 of Fig. 5. Fig. 7 is a plan view of the chisel-bit which is drop-forged in the said die, and Fig. 8 is a perspective view of the said chisel-bit.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is the arbor, and B is my novel cutter, which is carried by the arbor. The arbor is preferably of the overhanging type, and the work may be fed to the cutter or the cutter to the work, as per style of mill and depth of impression wanted taken by templet.

The cutter B is preferably made in one piece of steel and comprises a central body portion *a*, designed to be fixed with respect to the arbor A, and a circular series of teeth *b*. These teeth *b* are tapered transversely from their bases to their outer ends, as best shown in Figs. 2 and 3, are gradually in-

creased in thickness forwardly, as indicated by *c* in Fig. 4, and have their said outer ends alternately inclined or beveled right and left and gradually increased in width forwardly, as indicated by *d*.

As before stated, the cutter is designed more especially to sink the die C, (shown in Figs. 5 and 6,) in which the chisel-bit D, Figs. 7 and 8, is drop-forged, and it will be observed that the ends *d* of the cutter, alternately beveled in opposite directions and gradually increased in width forwardly, will assure the production of a perfect tongue *e* in the die and through the medium of said tongue a perfect groove *f* in the bit, and in connection with the rearward reduction in width of the teeth (indicated by *c*) will prevent shavings from hanging in the die, and thereby causing the tongue to rough up. The gradual increase in width forwardly of the ends *d* of teeth *b* contributes materially to the lasting quality of the cutter. The transverse taper of the teeth *b* assures the production of a die of such form that the bit drop-forged can be quickly and easily extricated from the die.

It will be gathered from the foregoing that my novel cutter is very durable and is adapted to perform the functions ascribed to it with rapidity and certainty, and it will also be appreciated that the cutter can be used to advantage in cutting smooth ways—such as *m*, in Fig. 6—in drop-hammers, lathes, planers, and other devices.

I claim—

The herein-described rotary cutter comprising a body portion and a circular series of teeth on the periphery of the body portion; the said teeth being tapered transversely from their bases to their outer ends and gradually increased in thickness forwardly and having their outer ends alternately inclined or beveled right and left and also having said inclined or beveled ends gradually increased in width forwardly.

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

ANDREW JACKSON CORLEY.

Witnesses:

W. W. TEASLEY,
B. F. HARRISON.