

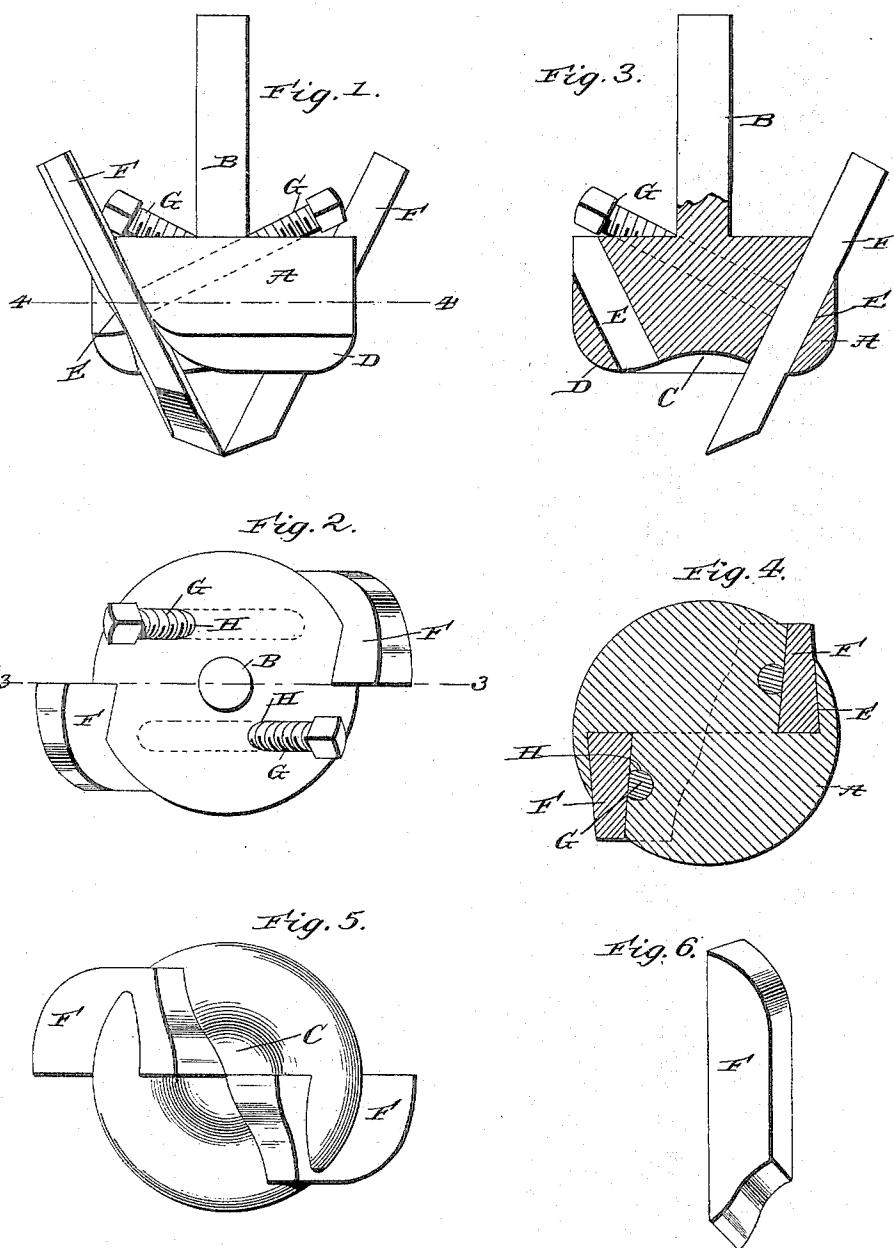
No. 640,321.

Patented Jan. 2, 1900.

G. L. PROBST.  
ROTARY CUTTER.

(Application filed Sept. 1, 1899.)

(No Model.)



witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE L. PROBST, OF POMEROY, OHIO.

## ROTARY CUTTER.

SPECIFICATION forming part of Letters Patent No. 640,321, dated January 2, 1900.

Application filed September 1, 1899. Serial No. 729,198. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. PROBST, a citizen of the United States, residing at Pomeroy, in the county of Meigs and State of Ohio, have invented new and useful Improvements in Rotary Cutters, of which the following is a specification.

My invention relates to rotary cutters such as are employed in carving-machines; and it consists in the peculiar and advantageous construction hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, Figure 1 is a side elevation of my improved cutter. Fig. 2 is a top plan view of the same. Fig. 3 is a view, partly in section and partly in elevation, the sectional part being taken in the plane indicated by the broken line 3 3 of Fig. 2. Fig. 4 is a transverse section taken in the plane indicated by broken line 4 4 of Fig. 1. Fig. 5 is an inverted plan view of the cutter. Fig. 6 is a perspective view of one of the bits removed from the cutter-head.

Similar letters of reference designate corresponding parts in all of the several views of the drawings.

In the preferred embodiment of the invention the circular cutter-head A is formed integral with its shank B and has its face shaped as shown—that is to say, provided with a central concavity C and an annular portion D of convex form in cross-section surrounding the concavity. It is also provided in its periphery or side, at opposite points, with grooves E, which extend from its upper side to its lower side or face, as shown. These grooves E extend inwardly, as well as downwardly, and are of dovetail form in cross-section, as best shown in Fig. 4, in order to secure the bits, presently described, against lateral displacement.

F F are bits of dovetail form in cross-section, which are inserted endwise in the grooves E of the cutter-head, and G are binding-screws for holding the bits in their operative position, said screws being arranged in threaded bores H, disposed at right angles to the bits and grooves, as shown.

By virtue of the grooves E, extending from the upper to the lower side of the cutter-head, long bits F may be employed, which when the screws G are loosened may be readily adjusted by hand, the operator having but to grasp their upper portions and move them to the extent desired.

The concavity or depression C in the center of the face of the cutter-head also constitutes one of the important features of my invention, since it affords a free passage for shavings through the center of the cutter and by preventing clogging or choking of the bits enables the same to cut freely at all times. In this connection it will be noticed that the meeting-points of the bits rest below the center of the concavity C and that said bits may be readily adjusted when worn, so as to make them always occupy the same relative position.

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

1. In a rotary cutter, the combination of a cutter-head having a central depression in its face, and also having downwardly and inwardly extending grooves in its side, and bits adjustably secured in the grooves of the head and having their points arranged below the depression in said head, substantially as specified.

2. In a rotary cutter, the combination of a cutter-head having grooves of dovetail form in cross-section in its periphery at opposite points; said grooves extending downwardly and inwardly from its upper to its lower side, bits of dovetail form in cross-section arranged in the grooves, and binding-screws arranged in the head and bearing against the bits, substantially as specified.

3. In a rotary cutter, the combination of a cutter-head having a central depression in its face, and also having grooves of dovetail form in cross-section in its periphery at opposite points; said grooves extending downwardly and inwardly from its upper to its lower side, bits of dovetail form in cross-section arranged in the grooves and having their meeting-points arranged below the center of the depression in the head, and binding-screws arranged in the head and bearing against the bits, substantially as specified.

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

GEORGE L. PROBST.

Witnesses:

W. H. PROBST,  
G. J. HETZEL.