(No Model.)

F. W. HEWES.

ROTARY CUTTER.

No. 343,174. Patented June 8, 1886.

Fig. 1.

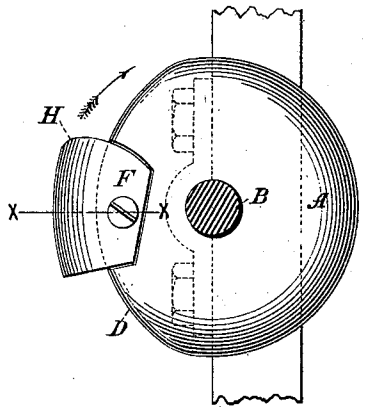


Fig. 2.

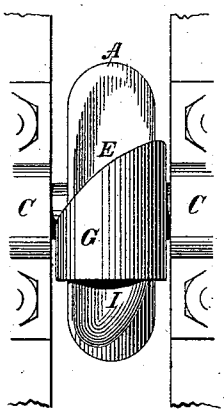


Fig. 3.

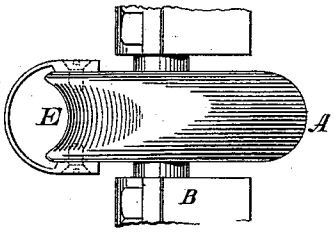
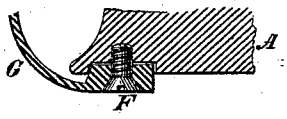


Fig. 4.



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ROTARY CUTTER.

SPECIFICATION forming part of Letters Patent No. 343,174, dated June 8, 1886.

Application filed June 24, 1885. Serial No. 169,632. (No model.)

To all whom it may concern:

Be it known that I, FLETCHER W. HEWES, of the city, county, and State of New York, have invented a new and useful Improvement in Rotary Cutters, of which the following is a specification.

My invention relates to a rotary cutter for forming a groove or rounded channel in the material operated upon, and more especially adapted and designed for producing rounded nicks or depressions in the edges of the leaves of a book to enable the latter to be conveniently opened at certain predetermined places.

The invention consists in the construction of the cutter, more particularly hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved cutter. Fig. 2 is an edge view of the same from the side, and Fig. 3 is an edge view from above. Fig. 4 is a sectional view on the line *x x* of Fig. 1.

Similar letters of reference indicate like parts.

A is the body or disk of the cutter, which is mounted on a shaft, B, rotated by any suitable means in the bearings C C. A part of the periphery of the disk A is cut away, so that the arc-shaped portion D of the periphery of less curvature is produced. In the edge of the portion D is formed a depression or groove, E, and to the disk A, and extending transversely over said groove E, is detachably secured by screws F, or by any other convenient means, the cutting-blade G. The operating edge H of this blade is rounded and inclined, as shown. The groove E in front of said edge is straight, but its rear portion is turned or directed to one side, as shown at I.

In operation the cutter is rotated in the direction of the arrow in Fig. 1, and during its operation it is brought up to the work or the work is moved up to it, as may be desired. The cutting-edge H, by reason of its inclination, makes a shearing cut, and by reason of its curvature produces a rounded depression or channel.

Abundant opportunity is afforded for the escape of the material removed through the space included between the blade and the bottom of the groove E. The rear end of said groove E is directed or turned so as to throw out the shavings in a sidewise direction and to prevent their accumulation directly beneath the cutter.

The blade G may be easily removed for regrinding or repair.

I find this construction of cutter especially suitable for making a clean deep groove in masses of paper—such, for example, as the edges of the leaves of a book—and to this end I have embodied it in an indexing-machine, for which I have made application for Letters Patent, No. 169,633, filed June 24, 1885, and simultaneously herewith. It may also be used advantageously for cutting grooves in wood or in any other material adapted to be acted upon by the cutting-edge.

I claim as my invention—

1. In a rotary cutter, the combination of the body A, having a portion, D, of its periphery of less curvature than the remaining portion, a groove or channel being formed in said portion D, and a cutting-blade extending across said groove and secured to said body, substantially as described.

2. In a rotary cutter, the combination of the disk A, having a portion, D, of its periphery of less curvature than the remaining portion, a groove or channel being formed in said portion D, and a cutting-blade having its operating edge inclined and its body curved and extending across said groove and detachably secured to said disk, substantially as described.

3. In a rotary cutter, the combination of the body A, having a portion, D, of its periphery of less curvature than the remaining portion, a groove or channel being formed in said portion D, the said groove having its rear extremity turned or directed to one side, and a cutting-blade extending transversely across said groove and secured to said body, substantially as described.

F. W. HEWES.

Witnesses:
DANIEL H. DRISCOLL,
PARK BENJAMIN.