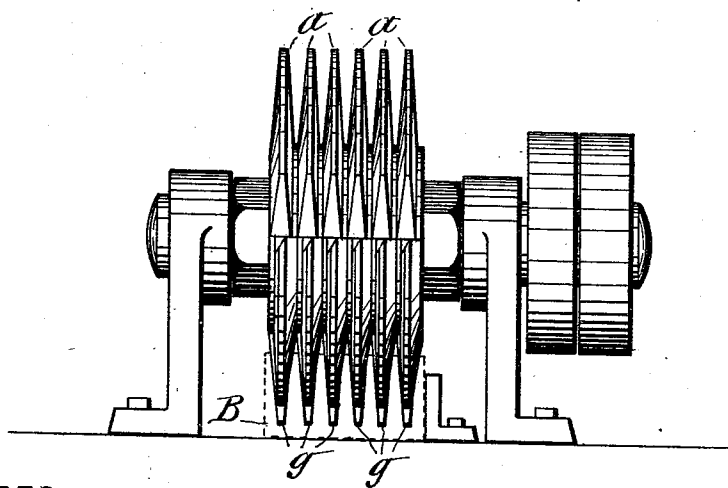
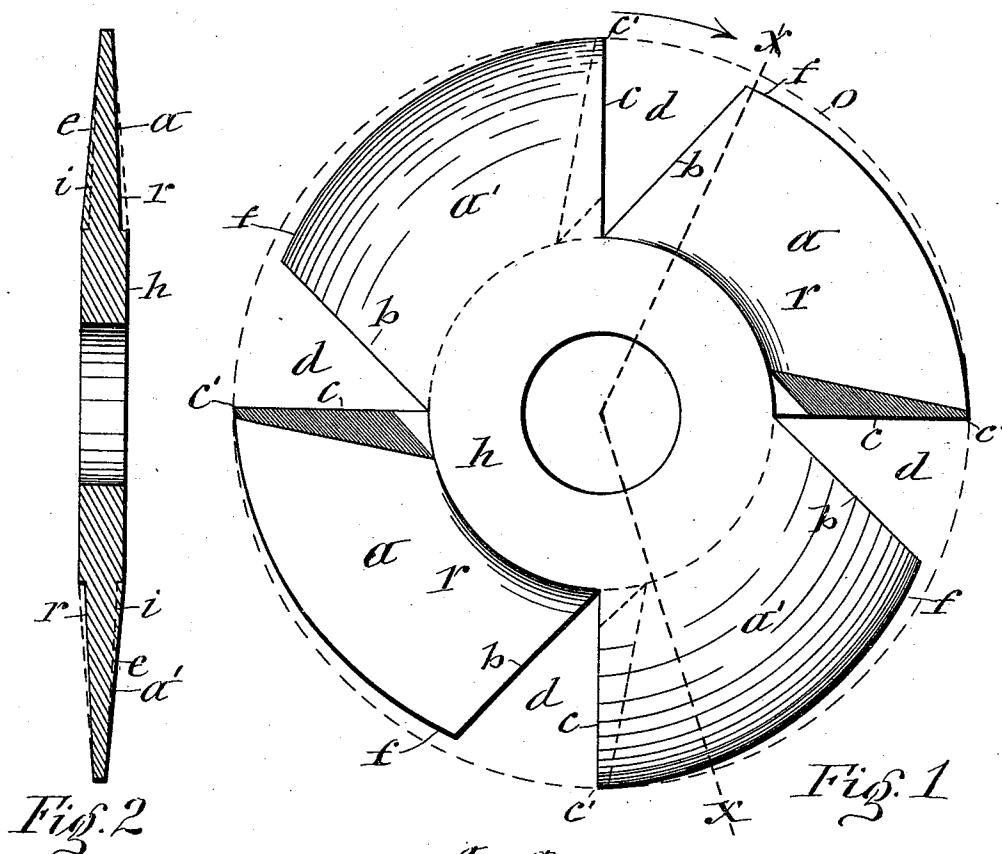


(No Model.)

G. D. GILLETTE.
ROTARY CUTTER FOR WOODWORK.

No. 542,886.

Patented July 16, 1895.



WITNESSES:

C. L. Bendixon

J. J. Laass

Fig. 3

INVENTOR:

George D. Gillette

By E. Laass
his ATTORNEY

UNITED STATES PATENT OFFICE,

GEORGE D. GILLETTE, OF OSWEGO, NEW YORK, ASSIGNOR TO THOMSON
KINGSFORD, OF SAME PLACE.

ROTARY CUTTER FOR WOODWORK.

SPECIFICATION forming part of Letters Patent No. 542,886, dated July 16, 1895.

Application filed December 10, 1894. Serial No. 531,304. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. GILLETTE, of Oswego, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Rotary Cutters for Woodwork, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of rotary cutters which are designed to operate on wood.

The object of the invention is to provide simple and efficient means for forming V-shaped or analogous grooves with smoothly-planed sides in an expeditious manner and without danger of heating the cutter by frictional contact with the wood; and to that end the invention consists in the novel construction of the rotary cutter, as hereinafter fully described, and set forth in the claim.

In the annexed drawings, Figure 1 is a detached side view of a cutter embodying my invention. Fig. 2 is a transverse section on line X X in Fig. 1, and Fig. 3 is an edge view of a series of cutters arranged for turning a plurality of channels side by side.

$a a'$ represent a plurality of cutting-blades, preferably four or other even number of them, which blades extend radially from the hub h . Said blades are separated from each other by V-shaped recesses $d d$, extending from the periphery to the aforesaid hub and forming between the sloping rear ends b and adjacent front cutting-edges c clearances for the shavings. Each of the aforesaid blades is beveled on one side from the hub h to the periphery and uniformly throughout said side of the blade. The opposite side of the blade is formed with a straight-faced rabbet r , which also extends from the periphery to the hub and uniformly throughout said side. The front cutting-edge c also extends in a straight line from the periphery to the hub, and is beveled from the beveled side of the blade rearward to the rabbeted side r of the blade. Said bevels and rabbet of the blades $a a'$ are reversed from those of the intermediate blades $a' a'$.

To relieve the cutter from frictional contact with the wood, and thus facilitate its operation so as to require less power, I gradually reduce the radii of the cutter from the cutting-points c' to the heels b of the cutting-blades, as shown in Fig. 1 of the drawings, in which the dotted line o is concentric to the axis of the cutter and represents the circular sweep of the cutting-points c' . The peripheries of the blades $a a'$ are thus formed with the clearances $f f$, which obviate the aforesaid frictional contact.

In the operation of the described cutter each blade cuts out of the board more than half of the width of the groove to be formed, and the successive blades plane out alternately opposite sides of the groove, which is thus formed with smoothly-planed sides.

A series of the described cutters may be mounted contiguously side by side on the arbor A, to form a plurality of corresponding series of parallel grooves $g g g$ side by side in the board B, as represented in Fig. 3 of the drawings, and said grooves may be cut to a sufficient depth to allow the board to be split or cut along the bottoms of the grooves to convert the board into a series of slats suitable for window-shades and other purposes.

Referring to Fig. 2 of the drawings, the dotted lines $i i$ indicate the clearances obtained at the sides of the cutter by the rabbets $r r$ in the cutting-blades.

Having described my invention, what I claim is—

The within described rotary cutter consisting of the hub h , having radially extending from it the blades $a a'$, each of which blades is beveled on one side from the hub to the periphery uniformly throughout said side of the blade and formed at the opposite side with the straight faced rabbet r extending likewise over the entire side of the blade and having on its front the straight cutting-edge c extending from the periphery to the hub and beveled from the beveled side of the blade rearward to the rabbeted side thereof, said bevels and rabbets with their cutting

edges being reversed on alternate blades, and
said edge of each blade projecting laterally
beyond the rabbeted face of the blade immedi-
ately in front of it while the bevel of the
5 cutting edge stands mostly behind the body
of the blade forward of it, substantially as
shown and described.

In testimony whereof I have hereunto
signed my name this 6th day of November,
1894.

GEORGE D. GILLETTE. [L. S.]

Witnesses:

H. L. HOUSE,

C. A. BENTLEY.