C. KARPP.

ROTARY CUTTER FOR WOODWORKING MACHINES.

APPLICATION FILED MAY 25, 1908.

924,240. Patented June 8, 1909.

Fig. 1.

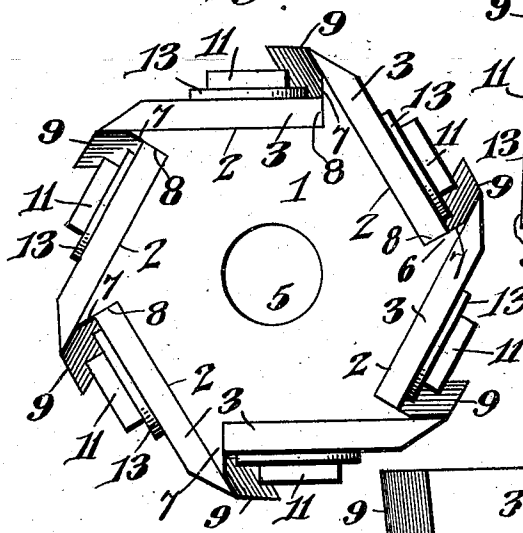


Fig. 2.

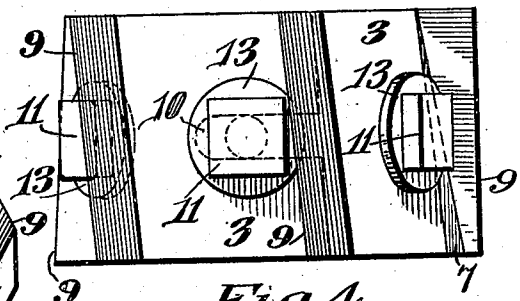


Fig. 4.

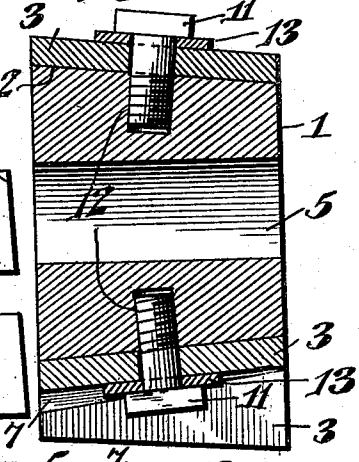


Fig. 6.

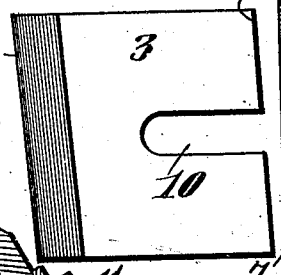


Fig. 3.

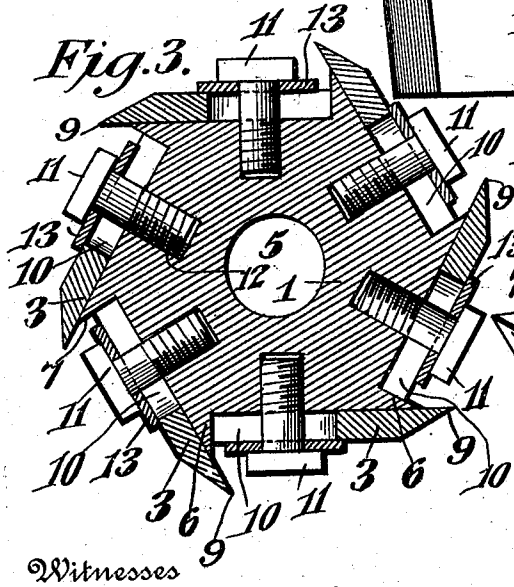
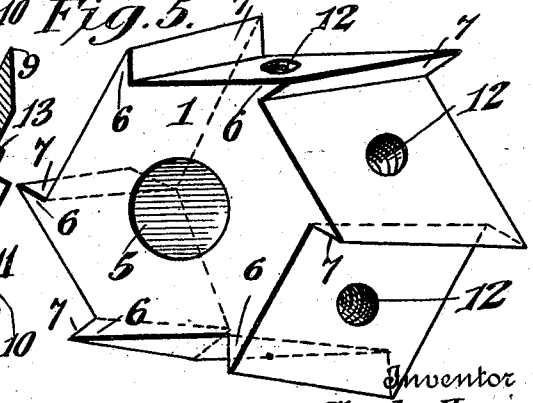


Fig. 5.



Witnesses

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ROTARY CUTTER FOR WOODWORKING-MACHINES.

No. 924,240. Specification of Letters Patent. Patented June 8, 1909.

Application filed May 25, 1908. Serial No. 434,830.

To all whom it may concern:

Be it known that I, CHARLES KARPP, a citizen of the United States, residing at Flushing, in the county of Queens and State of New York, have invented a new and useful Rotary Cutter for Woodworking-Machines, of which the following is a specification.

The invention relates to improvements in rotary cutters for wood working tools.

The object of the present invention is to improve the construction of rotary cutters for wood working machines, and to provide a simple and comparatively inexpensive and noiseless cutter, designed for plain work, molding, joints, etc., and adapted to afford a smooth, clean shear-like cut.

A further object of the invention is to provide a rotary cutter of this character, which will require but little pressure to be exerted in forcing the wood through the machine, and adapted to operate effectively on short pieces.

Another object of the invention is to enable the knives or cutters of the rotary cutter to be filed sharp on the cutter head the same as an ordinary planing knife without removing the cutters or blades from the cutter head.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of a rotary cutter, constructed in accordance with this invention. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal sectional view of the rotary cutter. Fig. 4 is a transverse sectional view of the same. Fig. 5 is a detail perspective view of the cutter head or stock. Fig. 6 is a detail view of one of the knives or cutters.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates an approximately hexagonal cutter head or stock tapered transversely, as clearly shown in Fig. 4 of the drawing, and provided with six cutter or knife-receiving faces 2, forming a continuous series and disposed at an angle of one hundred and twenty degrees to each other for causing the projecting cutting portions of the knives or cutters 3 to be arranged at an angle of sixty degrees to each other. The cutter head, which has a central opening 5, is provided at its angles with projecting transverse flanges 6, located at the periphery of the cutter head and tapered both transversely and longitudinally and supporting the projecting portions of the cutters or knives. The peripheral transverse flanges are provided with inner faces 7, arranged perpendicular to the adjacent cutter or knife-receiving faces 2 and adapted to form shoulders or abutments for the rear ends 8 of the knives or cutters 3 to prevent the same from shifting backward, as clearly illustrated in Figs. 1 and 3 of the drawing. The knives or cutters are transversely inclined owing to the taper of the cutter head, and their projecting portions are beveled to form cutting edges 9, which are arranged at an angle to the direction of movement of the knives or cutters so as to enable the same to have a shear-like cut. The knives or cutters taper reversely with relation to the taper of the flanges 6. The chip or shaving cut by a knife starts from the blade at the small end of the transverse flange 6, which gradually increases in width to the other side of the cutter head, where the chip or shaving is discharged and where the flange is the widest, so as to afford increased support for the blade or cutter and to prevent the chips or shavings from backing up under the cutter or blade and lifting the same. This transverse inclination of the knives or cutters and the angular disposition of the cutting edges thereof together with the large number of knives or cutters enable the rotary cutter to operate noiselessly and to make a clean, smooth shear-like cut. This construction also enables the cutter head to operate effectively on short lengths, say six or seven inch pieces, without danger to the operator. The knives or cutters, which are adjustable, are provided with longitudinal slots 10, extending forwardly from the inner or rear ends 8 and terminating at or near the centers of the knives or cutters and receiving clamping screws 11. The clamping screws 11 engage threaded sockets 12 of the cutter

head, and washers 13 are preferably interposed between the heads of the screws and the outer faces of the knives or cutters.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A rotary cutter including a polygonal-shaped cutter head tapered transversely and having a continuous series of inclined peripheral supporting faces and provided at its angles with projecting transverse flanges having a longitudinal taper, and transversely inclined knives or cutters secured to the peripheral supporting faces and tapered reversely with relation to the taper of the flanges to form angularly disposed cutting edges.

2. A rotary cutter including a polygonal-shaped cutter head tapered transversely and presenting a continuous series of inclined peripheral supporting faces, and provided at its angles with projecting transversely disposed flanges tapered both longitudinally and transversely and forming shoulders at the rear ends of the peripheral faces and providing supporting edges located at the front of the supporting faces and forming continuations thereof, and blades secured to the peripheral supporting faces of the rotary cutter and inclined transversely and tapered reversely with relation to the taper of the flanges to form angularly disposed cutting edges arranged to make a shear-like cut.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES KARPP.

Witnesses:
OTTO GREENBERGER,
B. B. ZIPPERT.