DANIEL STANLEY.

Improvement in Molding Cutter Heads.

No. 125,765. Patented April 16, 1872.

Fig. 1

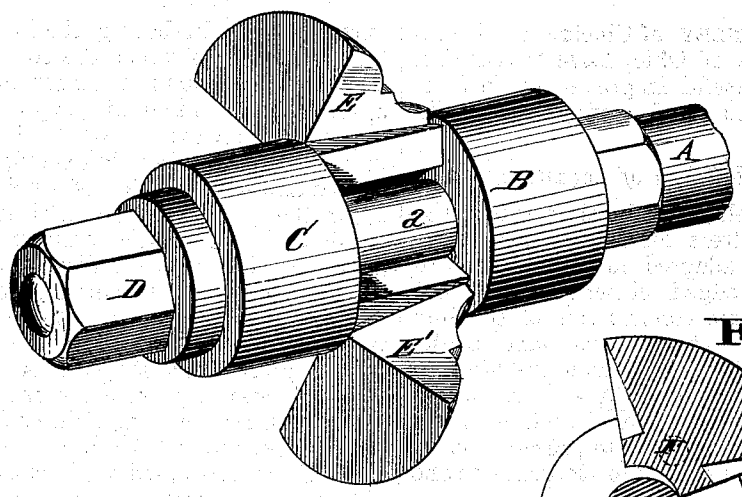



Fig. 3

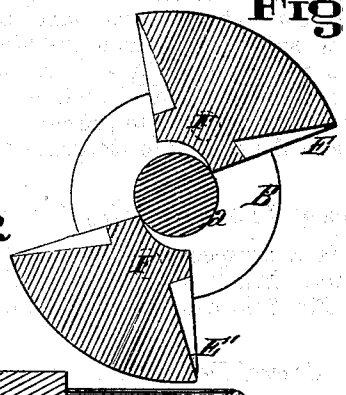
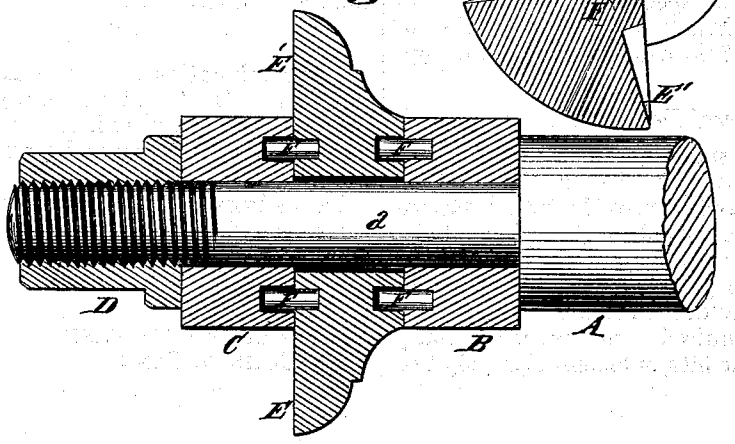



Fig. 2

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# UNITED STATES PATENT OFFICE.

DANIEL STANLEY, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND HENRY DOANE, OF SAME PLACE.

## IMPROVEMENT IN MOLDING CUTTER-HEADS.

Specification forming part of Letters Patent No. 125,765, dated April 16, 1872.

I, DANIEL STANLEY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Frizzing-Bits, of which the following is a specification:

*Nature and Objects of Invention.*

My invention relates to the class of frizzing-bits or rotary cutters for wood-working machines which are adapted to reverse so as to present a cutting-edge in either direction; and consist in a certain construction of the bits and peculiar connection of the same to the collars of the spindle, by which the bits are made to turn upon pivots in the direction of rotation and stop in either direction, when the bits are so adjusted as to present a clear cutting-edge in the front and clearance in the rear.

*Description of the Accompanying Drawing.*

Figure 1 is a perspective view of my improved cutter. Fig. 2 is an axial section of the same. Fig. 3 is a cross-section through the bits.

*General Description.*

A is the cutter-spindle, formed with a shank, *a*, for the reception of the bits, and screw-threaded at the end to provide for the fastening-nut. B is the inside collar or shoulder; C, the outside collar; and D, the nut used to secure the bits in place. E E′ are the bits or cutters, which are first turned out of one piece of steel to the required form and cut radially so as to form four bits, sufficient to supply two cutter-heads. In boring the hole in the center of the steel of which the cutters are made care is taken to make it larger than the shank *a*, for a purpose hereinafter explained. Pivots or pins F are fitted between the bits and collars on each side, the pins being half in the collars and half in the bits, as shown in Fig. 2, for the purpose of permitting the bits to oscillate circumferentially and thus to present a cutting-edge in either direction of rotation, the bore of the bits permitting this, being larger than the shank *a*. The bore, however, is not so much larger than the shank *a* as to permit great vibration, but, being but little larger, serves to prevent too great an oscillation, stopping the bits in either direction at a point when the bits have sufficient clearance behind the cutting-edge, as shown in Fig. 3. When it is desirable to reverse the action of the cutter-head, the nut D is slacked slightly, the bits thrown into the proper reversed position, and the nut again tightened.

*Claim.*

The combination of spindle A *a*, collars B C, nut D, bits E E′, and stationary pivots F, the parts being constructed, connected, and operating substantially as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

DANIEL STANLEY.

Witnesses:
HENRY MILLWARD,
JOHN A. CONN.