(No Model.)

V. MERKLEN.

CUTTER HEAD FOR LATHES.

No. 245,739. Patented Aug. 16, 1881.

Fig. 1.

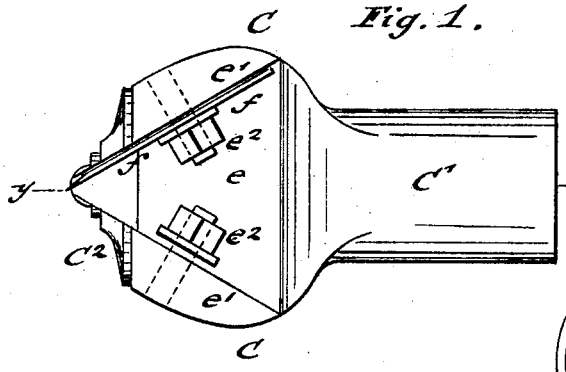


Fig. 2.

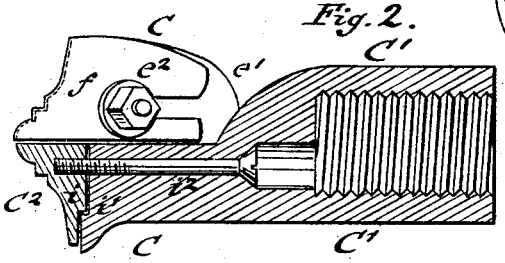


Fig. 3.

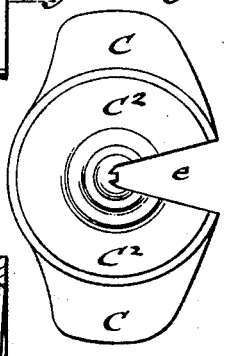


Fig. 4.

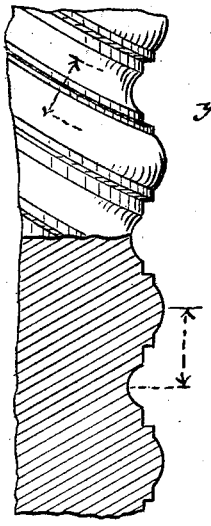


Fig. 5.

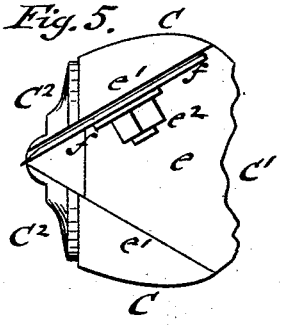


Fig. 6.

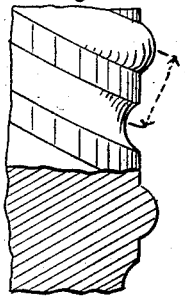


Fig. 7.

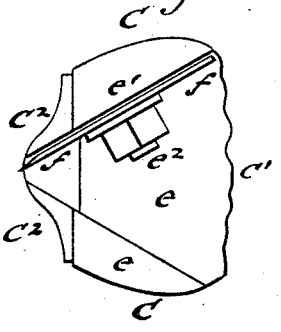


Fig. 8.

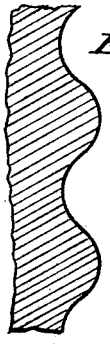


Fig. 9.

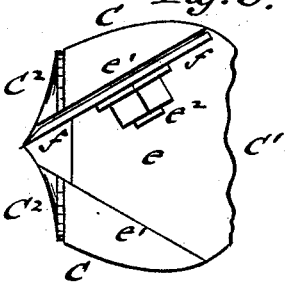


Fig. 10.

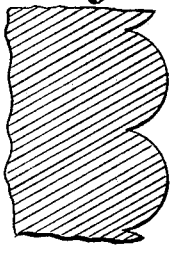


Fig. 11.

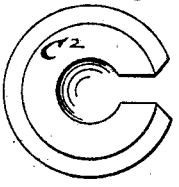


Fig. 12.

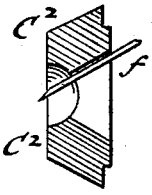
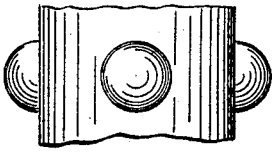


Fig. 13.



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Otto Risch

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BY Paul Goepel.

ATTORNEY

UNITED STATES PATENT OFFICE.

VALENTIN MERKLEN, OF NEW YORK, N. Y.

CUTTER-HEAD FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 245,739, dated August 16, 1881.

Application filed July 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, VALENTIN MERKLEN, of the city, county, and State of New York, have invented certain new and useful Improvements in Cutter-Heads for Lathes, of which the following is a specification.

This invention relates to a rotary cutter-head, which is more especially adapted for use on lathes, by which balusters, chairs, and table-legs and other articles are ornamented with spiral flutings of plain or profiled cross-sections, or with pearls, beads, or other figures.

The invention consists of a rotary recessed cutter-head which carries at a suitable angle of inclination an interchangeable cutter-knife secured adjustably to one of the inclined cheeks of the cutter-head. This head is provided with a profiled cap, which is recessed to correspond to the recess of the cutter-head, secured to the face of the cutter-head by a concentric guide-shoulder and an eccentrically-arranged fastening screw-bolt.

In the accompanying drawings, Figure 1 is a side view of the improved cutter-head. Fig. 2 is a central longitudinal section on line *y y* of Fig. 1. Fig. 3 is an end view. Fig. 4 shows a pattern cut by the cutter-head represented in Figs. 1 to 3. Figs. 5 to 13 represent different forms of the cutter-heads and profiles of the work accomplished by the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, the cutter-head C is provided with a tubular attaching-shank, C′, a profiled cap, C^2, and a triangular side recess, *e*. The shank C′ is interiorly screw-threaded, whereby it is adapted to be firmly attached to the cutter-shaft.

Inclined cheeks *e′* are formed by the triangular recess, to either one of which the cutting-knife *f* is tightly clamped by means of fastening-screws e^2, according as a right or left hand screw-profile is to be produced. The profile of the cutting-knife is equal to the profile of one-half of the section of the pattern to be produced upon the work, so that by the rotations of the cutting-knife the full pattern is produced. The inner edge of this knife is exactly in line with the center of the cutter-head.

The detachable cap C^2 has the same profile as the cutting-knife, and is recessed in line with the inclined cheeks of the cutter-head, to admit the setting of the knife so as to project beyond the cap. The cap C^2 is placed accurately in position upon the cutter-head by means of a concentric shoulder, *i*, which fits into a concentric recess, *i′*, of the cutter-head, as shown clearly in Fig. 2. This cap is secured by an eccentrically-arranged screw-bolt, i^2, which passes longitudinally through the cutter-head, and which can be removed by unscrewing, so as to release the face-cap after the cutter-head is removed from its shaft.

This cutter-head can be employed for cutting a right or left hand spiral, according as the cutting-knife is secured to one cheek or the other, and different patterns may be produced by simply changing the knife and cap, as shown in Figs. 5 to 13. When the rotary cutter-head is applied to the work it produces, by the inclined position of the knife to the work, the simultaneous traversing motion of the cutter-shaft, and the slow turning motion of the blank, a spiral or ornamental profile upon the baluster or other article to be carved.

What is claimed as the invention is—

1. A rotary cutter-head having inclined cheeks adapted to receive the cutting-knife, and provided with a detachable face-cap having inclined sides forming continuations of the cheeks, substantially as described.

2. The combination of a rotary cutter-head having a triangular recess forming inclined cheeks, a profiled cutting-knife adjustably secured to one of said cheeks, and a detachable slotted face-cap having the same profile as the cutting-knife, the sides of the slot forming continuations of the inclined cheeks, substantially as described.

3. A cutter-head having a concentric face-recess, provided with a profiled cap having a concentric shoulder fitting into the recess, and with an eccentrically-arranged screw-bolt for attaching the face-cap to the cutter-head, substantially as described.

In testimony that I claim the foregoing as my invention I have signed name, in presence of two witnesses, this 30th day of June, 1881.

VALENTIN MERKLEN.

Witnesses:
PAUL GOEPEL,
CARL KARP.