(No Model.)

J. W. MOSS & H. B. DILLENBACK.

CUTTER HEAD.

No. 422,607. Patented Mar. 4, 1890.

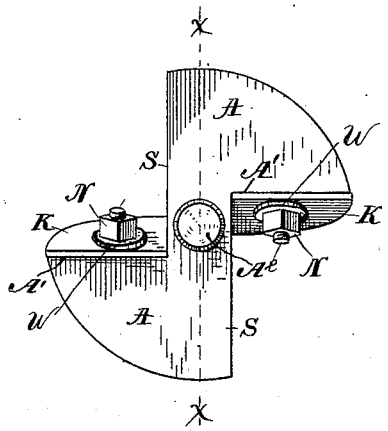

FIG. 1.

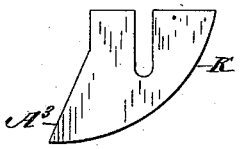

FIG. 4.

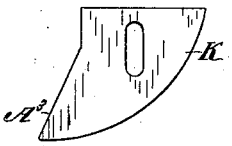

FIG. 3.

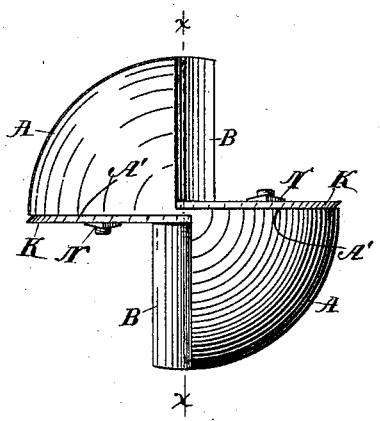

FIG. 2.

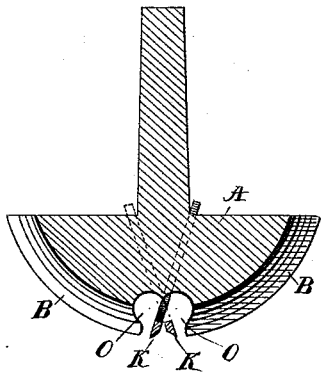

FIG. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES W. MOSS AND HARRISON B. DILLENBACK, OF GRAND RAPIDS, MICHIGAN.

CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 422,607, dated March 4, 1890.

Application filed October 4, 1888. Serial No. 287,221. (No model.)

To all whom it may concern:

Be it known that we, JAMES W. MOSS and HARRISON B. DILLENBACK, citizens of the United States, residing at the city of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Cutter-Heads, of which the following is a specification.

This invention has for its object to provide a new and improved cutter-head for that type of carving-machines wherein the cutter is guided by a dummy or follower and a pattern for cutting irregular shapes.

The invention consists in the novel construction and combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of the cutter-head. Fig. 2 is an inverted view of the same. Fig. 3 is a side elevation of one of the cutter-knives. Fig. 4 is a side elevation of a modified form of knife, and Fig. 5 is a sectional view of the cutter-head on line $x\,x$ of Fig. 1.

Similar letters refer to similar parts throughout the several views.

The cutter-head A is made of metal, and preferably of one piece, in order to give it greater strength, and it is formed with a pair of flattened knife-supporting seats A′, located, respectively, at different or opposite sides of the vertical axis A^2, and extending radially in opposite directions from the said axis. These seats A′ incline in opposite directions relatively to the axis of the cutter-head, and on each one is placed a knife K, composed of a flattened plate having a convex cutting-edge extending in a curved line from the outer edge of the cutter-head to the axis of rotation thereof, such cutting-edge of the knife corresponding exactly or in general to the curved outer surface of the cutter-head. The pair of knives are respectively secured to the flattened knife-seats by bolts N N, of any construction suitable for the conditions required. Between the nut and the knife we use a washer, (shown by W.) The sections shown by S S we unite at the bottom, and in order to make room for the shavings we cut away the bottom parts of the segments, forming shoulders, as shown by B B. We also prefer to leave a small opening extending above the knives, as shown by O in Fig. 5. The lower ends of the knives are extended laterally, as at A^3, so as to lap by each other a short distance past the axial center of the cutter-head, in order that they may cut the entire stock beneath them clean and smooth.

In use the knives are placed in position in the cutter-head and adjusted to the required position, and there secured in the manner above described, and then placed in the carving-machine adapted to receive it. It is adapted to be used in any of the ordinary carving-machines having the cutter-head guided by a dummy following a pattern, and does not differ in the manner of attachment from the cutter-heads now in use.

The smooth under surface of the cutter-head forms a gage for the knives, and may also act as a smoother for the stock when the knives are set for a light cut.

Having thus described our invention, what we claim to have invented, and desire to secure by Letters Patent, is—

1. The combination, with a cutter-head having a pair of flattened knife-seats A′ formed, respectively, at opposite sides of its axis and extending radially in opposite directions from the latter, of a pair of flattened knives K K, secured, respectively, to said knife-seats, and each having a convex cutting-edge extending in a curved line from the outer edge of the cutter-head to its axis of rotation, substantially as described.

2. The combination, with a cutter-head having a pair of knife-seats A′ extending radially from opposite sides of its axis, of a pair of knives K K, secured to the knife-seats, and having curved cutting-edges and lateral extensions A^3 respectively lapping past each other at the axis of the cutter-head, substantially as described.

In witness whereof we have hereunto set our hands and seals in the presence of two witnesses.

JAMES W. MOSS. [L. S.]
HARRISON B. DILLENBACK. [L. S.]

Witnesses:
EDWARD TAGGART,
ARTHUR C. DENISON.