(No Model.)

J. W. MALOY.

ROTARY CUTTER HEAD FOR STONE DRESSING MACHINES.

No. 308,366. Patented Nov. 25, 1884.

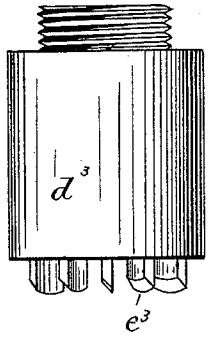


Fig. 1.

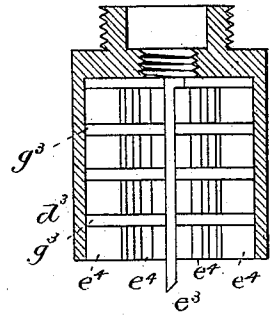


Fig. 2.

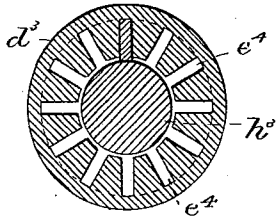


Fig. 3.

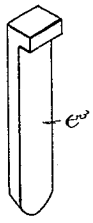


Fig. 4.

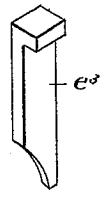


Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES W. MALOY, OF SOMERVILLE, MASSACHUSETTS.

ROTARY CUTTER-HEAD FOR STONE-DRESSING MACHINES.

SPECIFICATION forming part of Letters Patent No. 308,366, dated November 25, 1884.

Application filed May 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. MALOY, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Rotary Cutter-Heads for Stone-Dressing Machines, of which the following is a specification.

This invention has for its object to provide an improved rotary cutter-head adapted to act on stone, and particularly to be used with the stone-dressing machine described in my application for Letters Patent filed January 5, 1884, Serial No. 116,520.

The invention consists in the improvements hereinafter described and claimed.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of my improved cutter-head. Fig. 2 represents a vertical section of the same. Fig. 3 represents a horizontal section. Figs. 4 and 5 represent perspective views of bits employed in my improved head.

The same letters of reference indicate the same parts in all the figures.

My improved cutter is composed of a holder, d^3, adapted to be attached to a rotary arbor, as described in my above-named application, and one or more cutting-bits, e^3, detachably secured to said holder, and having their lower ends formed to cut a stone-surface. The holder d^3 is a hollow cylindrical shell, having at its upper end an externally-threaded neck adapted to be screwed into a socket connected with a vertical arbor, as described in my above-named application, and provided in its inner surface with a series of vertical slots, e^4, which are radial in cross-section, as shown in Fig. 3, and with a series of annular or transverse slots, g^3, intersecting the slots e^4. The bits e^3 are bent at right angles at their upper ends, as shown in Figs. 2, 3, and 5. The body of each bit enters one of the longitudinal slots e^4, and the bent end enters one of the annular slots g^3, each bit being supported by the bearing of its bent end on the bottom of the annular slot in which it rests. A cylindrical plug, h^3, is inserted in the holder and fills the central space, thus holding the bits in the slots e^4. Said plug has a threaded neck, which is screwed through a threaded socket in the holder d^3 and into a similar socket in the lower end of the cutter-arbor, thus securing the cutter to the arbor. It will be seen that as many bits may be used as there are slots e^4; but in practice two will be sufficient. As the bits become worn they can be adjusted by moving their bent ends from one annular slot g^3 to the one below, so that long bits can be provided and used until worn to a small fraction of their original length.

When the cutter is intended for forming flat surfaces on a slab, the cutting-edges of the bits should have the form shown in Figs. 1 and 4. When used for molding the edge of a slab or the margin of an orifice in the slab, the bits will be formed to produce the desired shape.

I claim—

1. In a stone-dressing machine, a rotary hollow cylindrical holder having internal radial slots and internal annular slots in its inner surface crossing each other, for receiving the tools and projections thereon, as set forth.

2. In a stone-dressing machine, a rotary cutter composed of a hollow cylindrical holder having internal radial slots and internal annular slots intersecting said radial slots, one or more bits having their shanks inserted in the radial slots, and bent ends inserted in the annular slots, and a plug, h^3, detachably secured in the interior of the holder and bearing against the inner edges of the bits, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of May, 1884.

JAMES W. MALOY.

Witnesses:

C. F. BROWN,

A. L. WHITE.