

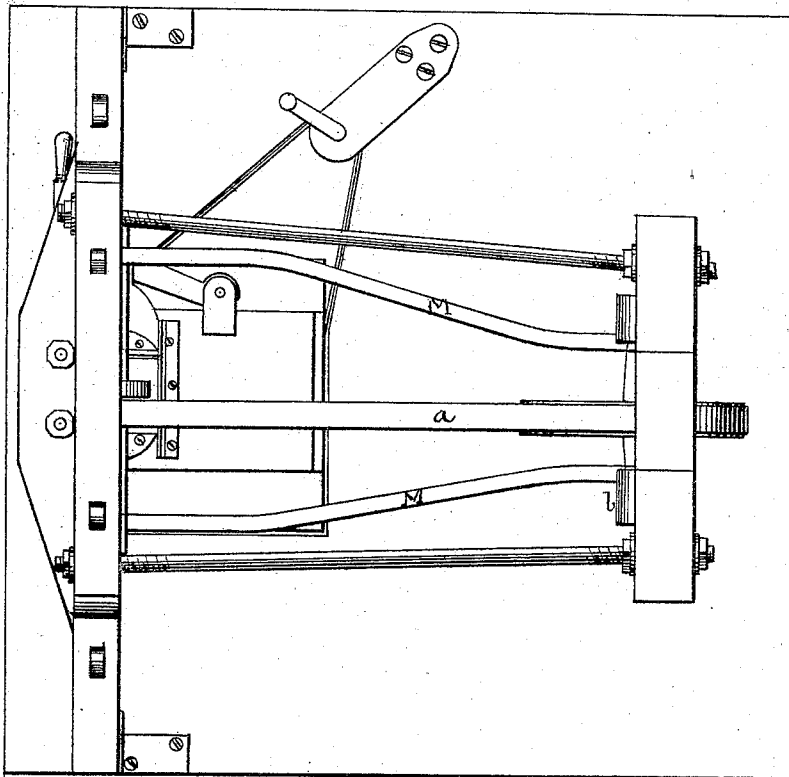
W. A. FORMAN.

Machines for Cutting and Dressing Stone.

No. 137,354.

Patented April 1, 1873.

Fig. 1.



Witnesses.
Thos. J. Parker.
Geo. C. Lambright

Inventor.
William A. Forman
by Atty Thos. J. Everett

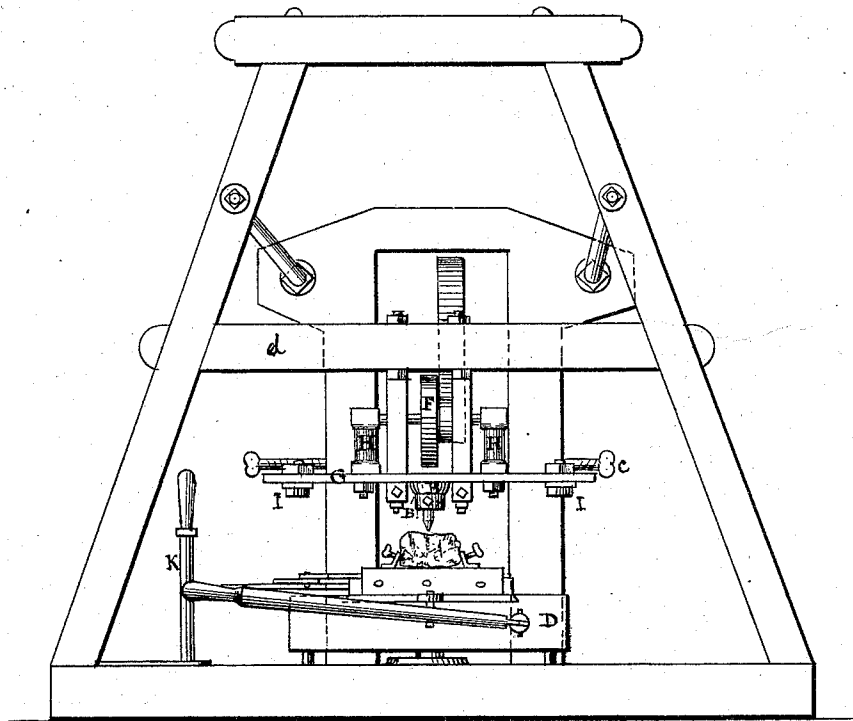
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Fig. 2.



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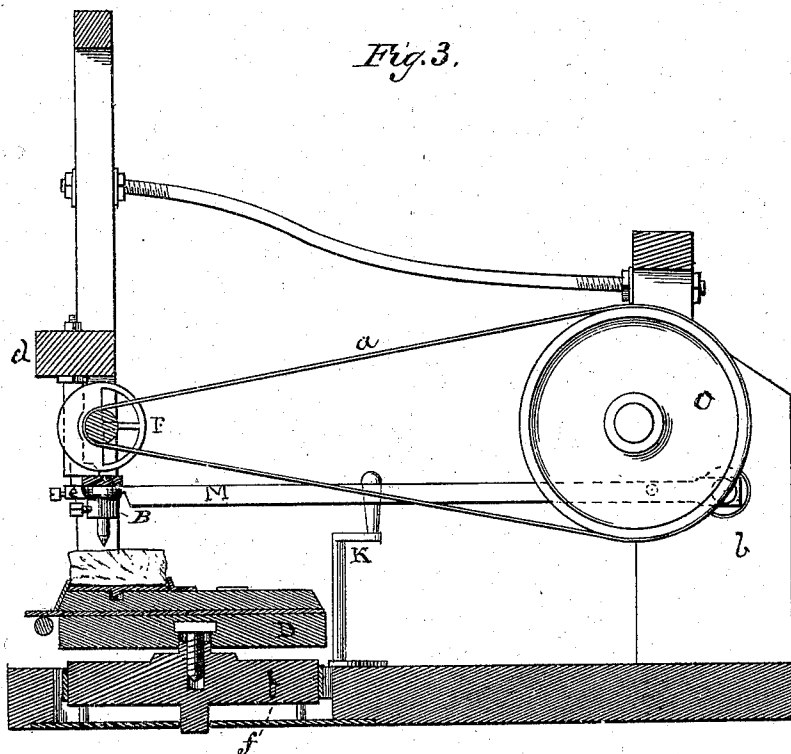
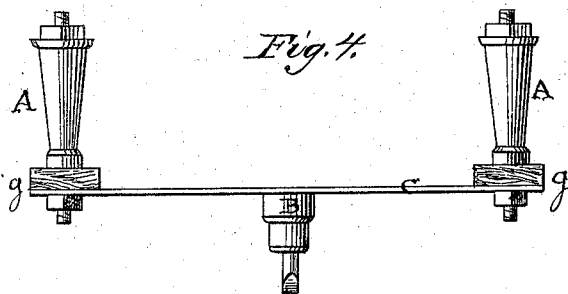
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UNITED STATES PATENT OFFICE.

WILLIAM A. FORMAN, OF GENESEO, NEW YORK, ASSIGNOR OF ONE-HALF
HIS RIGHT TO WILLIAM H. KELSEY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR CUTTING AND DRESSING STONE.

Specification forming part of Letters Patent No. **137,354**, dated April 1, 1873; application filed
March 10, 1873.

To all whom it may concern:

Be it known that I, WILLIAM A. FORMAN, of Geneseo, in the county of Livingston and State of New York, have invented an Improvement in Machines for Cutting and Dressing Stones, of which the following is a specification:

The machine represented by the annexed drawing has in view utilizing the vibration or force evolved from a loaded wheel in rapid motion. It is shown adapted to cutting or dressing stone, but, as is evident, may be used for other purposes, by substituting for the chisel or cutter shown such other tool or device as will answer for the intended purpose.

Of the drawing, Figure 1 is a top view of the machine; Fig. 2, an end view; Fig. 3, a view by longitudinal section; and Fig. 4, a view of the tool, spring-bar, and columns, detached.

The loaded wheel F, having a hub for the band *a*, is, by its shaft, supported by the stanchions H, the stanchions being affixed to the bar G, and the bar attached to the ends of the spanners M. These spanners are secured to the uprights *b* by bolts and nuts and binding-screws *c*. The driving-wheel O has its bearings in the uprights *b*. The buffers E are affixed to the cross-bar *d*, the foot *e* of the buffers being adjustable. The frame of the machine needs no special description of parts. The stock or tool-socket B is secured in the bar G, the tool being adjustable in the stock. Underneath the bed or table D are means for raising or lowering the bed, which consists of the wheel *f*, with a screw fitting in its hub and in the table, the wheel being turned by a band from a pulley which is rotated by the crank K. The means for securing the stone in the bed-

plate and for moving and adjusting being clearly shown by the drawing, and being the means generally used, need no special description.

Motion being given to the driving-wheel O and communicated to the wheel F, vibration will commence, which increases as the speed is augmented, and the tool, being attached where the greatest force is exerted, has free, rapid, and efficient action upon the stone or substance operated upon. The horizontal bar G being removed and the screw-bolts I taken out, the spring-bar C can be substituted and the columns A attached by the holes, pointing downward, and the spanners M attached by the screws going through the columns, and the buffers adjusted to a short stroke, half what is used with the first-described means; now, motion being communicated, as at first stated, the spring-bar C will vibrate in a manner to produce results distinct from those obtained by the first-named means, by reason of the suddenness with which the instrument is withdrawn from the substance worked.

India rubber or elastic blocks *g* may be used in connection with the bar C, as is shown by Fig. 4.

What I claim is—

A loaded wheel F, in combination with a driving-wheel, O, connected by belting, and a bar, having attached thereto an operating tool actuated by the vibration of the parts, substantially as herein recited.

This specification signed this 29th day of January, 1873.

WM. A. FORMAN.

Witnesses:

J. B. ADAMS,
O. M. HOPKINS.