

Patented June 14, 1859.



Inventor:
H. B. Gill.

UNITED STATES PATENT OFFICE.

H. B. GILL, OF OGDEN, NEW YORK.

MACHINE FOR DRESSING MILLSTONES.

Specification of Letters Patent No. 24,385, dated June 14, 1859.

To all whom it may concern:

Be it known that I, H. B. GILL, of Ogden, in the county of Monroe and State of New York, have invented a new and Improved Machine for Dressing Millstones; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1, is a side elevation. Fig. 2, is a plan view showing the method of adjusting the striking lever, the parts being broken off. Fig. 3, is a plan view of the head of the striking lever; and Fig. 4, is a front elevation of the same.

In the drawings, A, represents a frame, one end of which is provided with the curved way B, which bears the carriage C, Fig. 1. To an axle having the journals *d* working in two standards *e e* (one of which is broken away in Fig. 1,) the striking lever G is attached, the opposite end of which carries the pick H. On the forward part of the frame the shaft I, carries the driving wheel K, which gears with a small pinion on the end of shaft J, which carries the balance wheel L. This shaft is provided with the cam and friction roller M, which, in revolving, raises the striking lever, through the medium of the segmental arm O, the dropping of which gives the blow of the pick up the stone. The arm, O, works in a longitudinal slot in the lever, (the front side of which is broken away to show it to better advantage) and is pivoted at *h*. The opposite extremity is formed of the segment of a circle, and passes through the end of the slide plate N, on the top of which is a rack-bar, *k*, in to which the toothed pinion, *g*, gears.

A hand wheel, *l*, on the end of the shaft of *g*, enables this pinion to be turned, whereby the slide plate, N, is moved forward or backward, raising or lowering the arm O. As this arm forms the place of contact with the cam, M, in actuating the lever, the raising or lowering of it diminishes or increases the force of the blow, which is given in part by the weight of the lever and pick in falling, and aided by the coiled spring P, which

also serves to render the action steady and uniform.

The frame is supported on four feed rollers, *r r*, which rest on the surface of the stone to be dressed. The journals are provided with small pinions, *s s, s s*, which are operated by the screw thread of the shaft T, which derives its motion from the shaft I through the intermediate shaft Q, and beveled gearing. By this means the machine is moved slowly forward to bring the pick to operate on new surface, and by using screw shafts showing coarser or finer threads the movement of the machine in relation to the strokes of the pick may be varied as required.

The position of the pick to the lever may be changed so as to cut transversely or obliquely, by the small lever and ratchet, *v w*. The direction of the series of cuts or the grooves or channels in the dress of mill stones may be accommodated in a very convenient manner by sliding the carriage C, on the circular way B, rendering the axis of the lever more or less oblique to the frame A, as in Fig. 2.

The pick is secured to the bearer *x* by inserting the end in the groove where the pin *y*, enters a notch provided for the purpose, (as shown in dotted lines Fig. 4,) while the crank *z*, passes through a slot below and being turned, holds it securely in its place.

The facility with which the operator can vary the force and frequency of the blows, the ease and regularity with which it may be fed forward or back, and made to cut in different directions, render it an efficient and easily controlled machine for the purpose for which it is intended.

What I claim as my invention and desire to secure by Letters Patent is—

The combination and arrangement of the pivoted segmental arm O, and slide N, with the, striking lever G, and cam M, or its equivalent, substantially in the manner and for the purpose set forth.

H. B. GILL.

Witnesses:

I. FRASER,
S. J. ALLIS.