

A. WOODWORTH.

Improvement in Machine for Mill-Stone Dressing.

No. 130,265.

Patented Aug. 6, 1872.

Fig. 1.

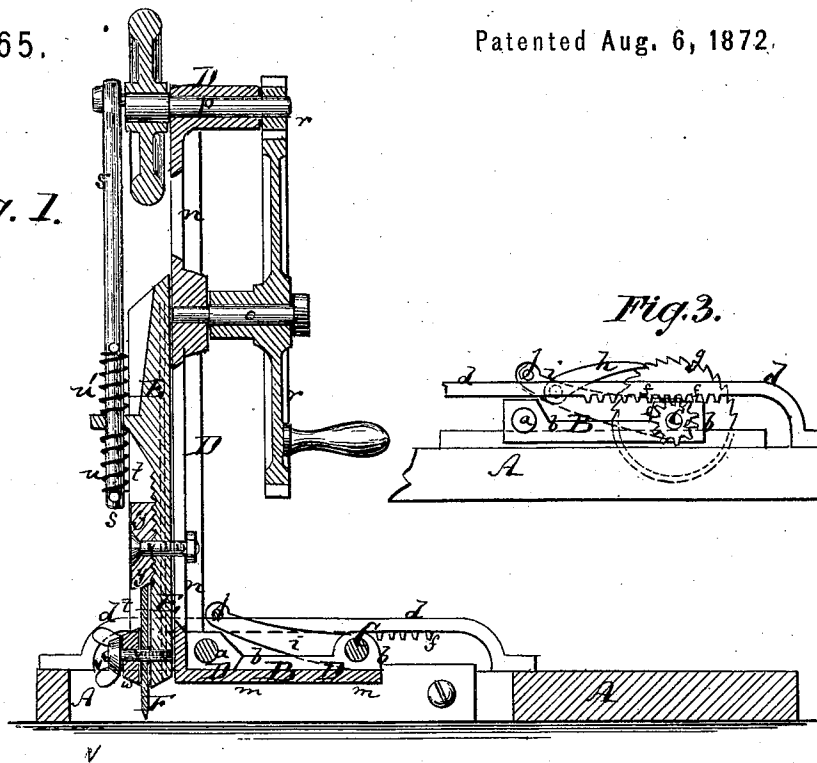


Fig. 3.

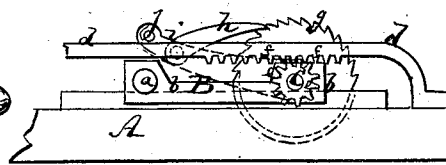
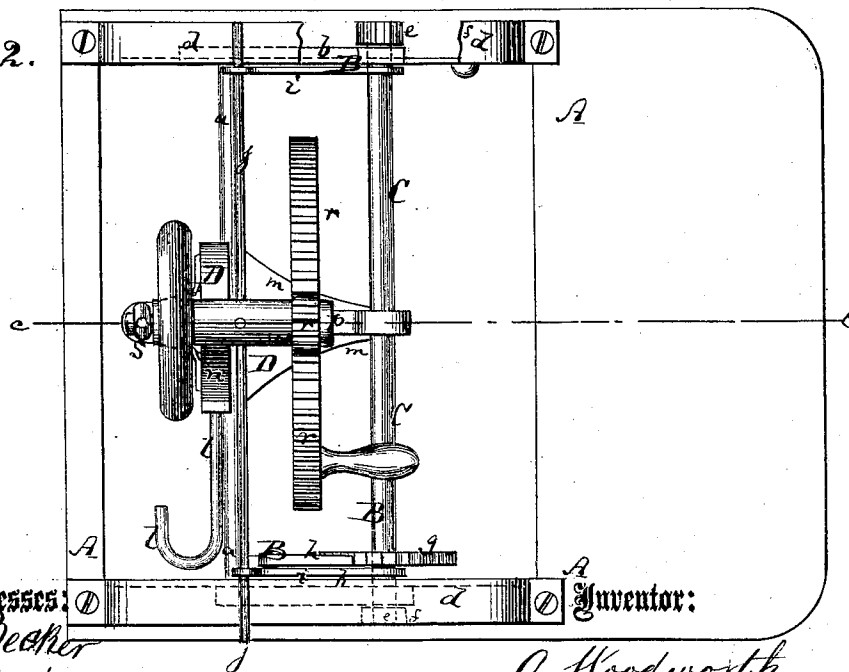


Fig. 2.



Witnesses:

John Beecher
W. A. Graham

Inventor:

A. Woodworth.

PER

Munroe
Attorneys.

UNITED STATES PATENT OFFICE.

ALFRED WOODWORTH, OF CAMBRIDGE, NEW YORK, ASSIGNOR TO WILLIAM P. HARWOOD, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR MILLSTONE DRESSING.

Specification forming part of Letters Patent No. 130,265, dated August 6, 1872.

Specification describing a new and Improved Millstone-Dressing Machine, invented by ALFRED WOODWORTH, of Cambridge, in the county of Washington and State of New York.

Figure 1 represents a vertical longitudinal section of my improved millstone-dressing machine, taken on the line *c c*, Fig. 2. Fig. 2 is a top view of the same. Fig. 3 is a detail side view of the traveling gear.

Similar letters of reference indicate corresponding parts.

The invention consists in arranging two pitman-springs, one at each side of a stud on front of tool-stock, through which the pitman passes, so that the upper spring will raise picker and take up stock, while the lower one will prevent its return to the recess of stone, and any obstruction to a proper clearance thereof.

A in the drawing represents the bed of the machine. B is a sliding frame resting thereon. This sliding frame B is composed of a transverse front bar, *a*, of end pieces *b b*, and of a horizontal shaft, C. The end pieces fit into slots or grooves at the ends of the bed A, which slots or grooves are, preferably, formed by caps *d d*, fastened over the ends of the bed, as shown. The shaft C has its bearings in the pieces *b*, and carries at one or both ends a pinion or pinions, *e*, whose teeth match into a toothed rack, *f*, formed on one of the caps *d*, as is clearly shown in Fig. 3. A ratchet-wheel, *g*, is mounted upon the shaft C, and is in connection with a pawl, *h*, that is pivoted to a plate, *i*, swinging on the shaft C. There may be two such plates, *i*, one near each end of the shaft C, as shown, and both connected by a rod, *j*. When the rod *j* is carried up to swing the plates *i* the pawl *h* is made to act on the ratchet-wheel, turning the shaft C, and causing the frame B to move forward, owing to the contact of the pinion *e* with the stationary rack *f*. When the frame B has reached the limit of its forward motion the pawl must be thrown off the ratchet-wheel in order to permit the frame B to be moved back again, as otherwise the pawl, gearing into the ratchet-wheel, prevents the shaft C from turning, and locks the frame B on the rack *f*. On the bar *a* and shaft C is supported a carriage, D, which can be moved laterally on its supports, and is pro-

vided with a suitable handle, *l*, whereby it can be moved to one side or the other. The carriage D is composed of the base *m*, which has the ears that embrace the supports *a* and C, and of an upright post, *n*, which contains the bearings of the operating-arbor *o* and crank-arbor *p*, both of which arbors are connected by gearing *r*. The crank of the arbor *p* is, by a pitman, *s*, connected with the reciprocating slide and tool-holder E, which is guided between rails *t t* on the face of the post *n*. The pitman *s* fits through a projecting ear of the slide E, and carries springs *u u'*, which bear against opposite sides of said ear, as is clearly shown in Fig. 1. The effect of the tool on the stone will, consequently, be gentle, and not in shocks that would injure the tool, and cause the stone to become splintered or unevenly reduced.

The tool F is, by a screw, V, fastened to the lower part of the slide E, the screw passing through a detachable block, *w*, and, through a slot in the tool, into the slide. The upper end of the tool bears against a detachable block, *y*, which is, by means of a screw or bolt, *x*, fastened to the face of the slide E. The contiguous faces of the slide and block *y* are serrated, so that the latter will be vertically sustained on E, and constitute a reliable bearing for the tool F during its descent against the stone. During operation, while the tool reciprocates, the frame D is drawn sidewise, to cause a groove to be cut, and at the end of its motion the pawl is brought against the ratchet-wheel to feed the frame B ahead, and cause a new groove to be cut during the subsequent side movement of D.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The combination, with a picker-stock, E, having front stud, of a driving-crank pitman, S, passing through and having springs *u u'*, one on each side of said stud, as and for the purpose described.

ALFRED WOODWORTH.

Witnesses:

JAMES F. HALL,
WARREN NORTON, JR.