S. ROSS.

MILLSTONE-DRESSING DEVICE.

No. 193,554. Patented July 24, 1877.

Fig. 1

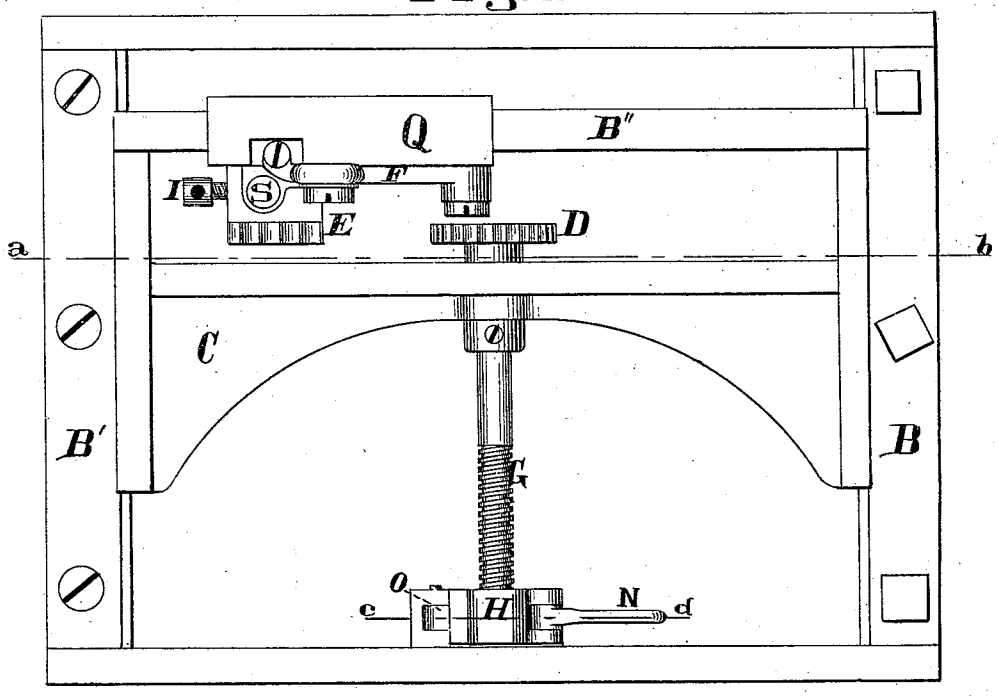


Fig. 2

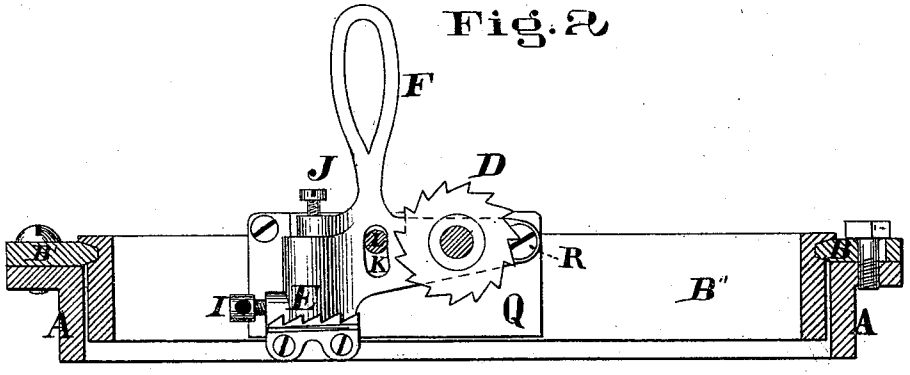


Fig. 3

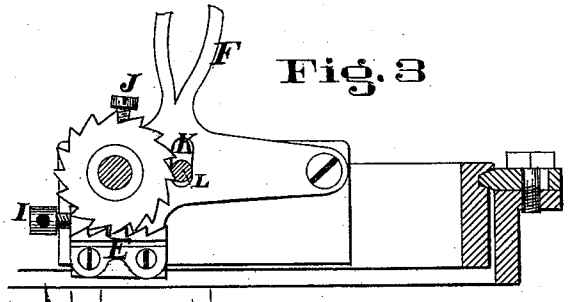
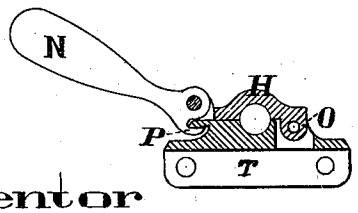


Fig. 4



Attest

Chas. F. Gessert.

Chas Crapsey

Inventor

Simon Ross

by

Manny Millward

atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SIMON ROSS, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND GEORGE A. VANDEGRIFT, OF SAME PLACE.

IMPROVEMENT IN MILLSTONE-DRESSING DEVICES.

Specification forming part of Letters Patent No. **193,554**, dated July 24, 1877; application filed July 29, 1876.

To all whom it may concern:

Be it known that I, SIMON ROSS, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Millstone or Burr Dressing Devices, of which the following is a specification:

My invention relates to machines for dressing millstones; and consists, first, in mounting a suitable tool-holder upon parallel slides or ways, in such a manner as to cause a rack attached to the tool-holder, and, during the return stroke of said holder, to engage with a cog-wheel controlling a feeding device, and thus change the lateral position of the tool-holder into the desired position for the next cut; secondly, in a device for releasing the feed-screw from the nut through which it works, when it becomes desirable to change the lateral position of the tool, without going through the slow process that would be necessary if the screw were not released.

In the accompanying drawings, Figure 1 is a plan view of a machine embodying my invention. Fig. 2 is a sectional elevation of the same, taken through line *a b* on Fig. 1. Fig. 3 is a partial sectional elevation, representing the tool-holder as engaged with the feeding device; and Fig. 4 is a sectional elevation taken through line *c d* on Fig. 1.

Similar letters of reference denote the same parts in each of the figures.

A is a frame, having two of its sides parallel, with straps B and B′ bolted thereto, upon which slides a cross-head, C, the strap B being adjustable for the purpose of taking up "lost motion" caused by wear on the straps B B′, or on the cross-head C. Upon the slide B″, which is a part of the cross-head C, is a sliding block, Q, to which is attached a tool-holder, consisting of an operating-lever handle, F, pivoted at R, the motion of which is limited by the slot K and pin L, subject to a nice adjustment by the set-screw J; a tool-socket, S, for the reception of the cutting-tool; and, finally, attached to one side of the tool-socket, a rack, E.

Journaled to the cross-head C is a screw-bolt, G, which works in a screw-box, H. Upon the screw-bolt G is firmly secured a feed-wheel, D.

The operation of the machine is briefly described as follows: The frame A is placed upon the stone to be dressed, with the slide B″ parallel with the desired line of cut. The operator locates himself near the side B, resting one hand upon the strap B′, and, with the handle F, moves the slide-block Q and the tool located in the socket S to the desired point of cut, with the point of the tool resting on the stone to be cut, with the depth of cut regulated by the set-screw J. The slide-block Q is forced forward by the handle F, and the tool in socket S grooves the stone to the desired depth. On the return stroke, the handle F, being pivoted at R, raises the point of the tool from the stone, and with it the rack E, to the desired height for the said rack to engage with the feed-wheel D, and cause the screw-bolt G to move in the screw-box H, and thus change the lateral position of the tool into the desired position for the next cut.

When it becomes desirable to make any considerable change in the lateral position of the tool, or when the cross-head C has been fed up as far as practicable, the screw can be released from the screw-box H by raising the lever N, which is pivoted to the movable part of the box H, and the hook part of the lever N is removed from the projection at P, forming part of the stationary half of screw-box H, and the movable half of said screw-box, being pivoted at O, is raised from the screw G, which is then free to move through the lower half of the screw-box, it being free from threads.

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

1. In a diamond millstone-dresser, the sliding block Q, to which is pivoted a tool-holder, having its vertical motion limited, and adjustable by the slot K and pin L, with

rack E, arranged to communicate with and change the position of the feeding device, substantially as and for the purpose specified.

2. As applied to a millstone-dresser, the screw-box H, divided through its center, the part T being secured to the frame A, and the movable part pivoted to the same at O, and arranged to be locked together by the lever N, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 20th day of July, 1876.

SIMON ROSS.

Witnesses:

HENRY MILLWARD,

JNO. P. MURPHY.