J. P. KEALY & J. RIGNEY.

Sharpening-Machines.

No. 140,832. Patented July 15, 1873.

Fig. 1.

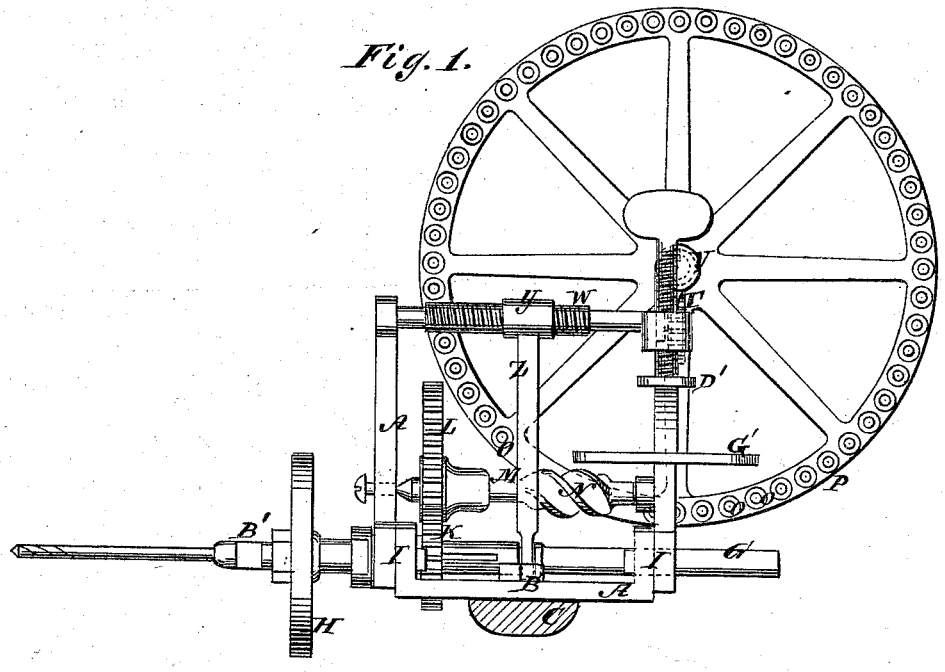
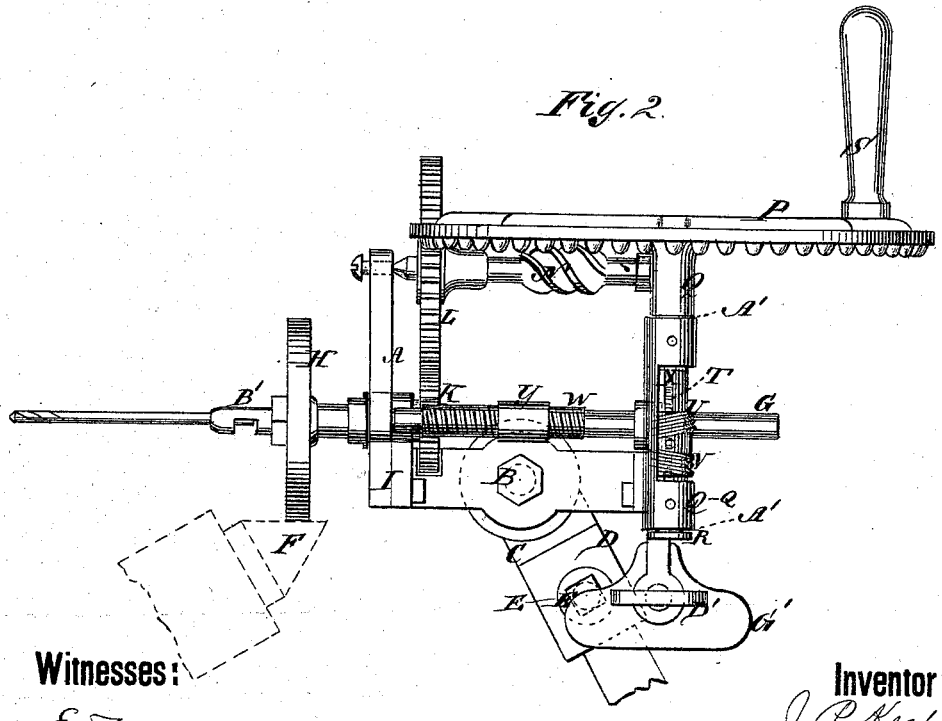


Fig. 2.



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JAMES P. KEALY AND JOSEPH RIGNEY, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN SHARPENING-MACHINES.

Specification forming part of Letters Patent No. **140,832**, dated July 15, 1873; application filed March 29, 1873.

To all whom it may concern:

Be it known that we, JAMES P. KEALY and JOSEPH RIGNEY, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and Improved Machine for Dressing Lathe-Centers, of which the following is a specification:

The invention consists in the improvements of machines for dressing lathe-centers, as hereinafter described and pointed out in the claim.

Figure 1 is a side elevation of our improved machine for dressing lathe-centers with a part of the frame sectioned. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A is a small cast-metal frame, which is bolted at B to a support, C, having a socket-piece, D, attached to fasten it on the end of a square bar, E, which is to be fastened in the tool-post of a lathe, so as to support the frame relatively to the center F of a lathe, as shown in Fig. 2. G is a mandrel, on which the grinding-disk H is arranged at one end projecting beyond the frame. This mandrel is arranged in its bearings I so that it can traverse forward and back the length of the point of the lathe-center, and is geared by pinion K, through which it slides, with the driving-wheel L on the counter-shaft M, which has a worm or screw, N, in which the teeth O on the side of the rim of the driving-wheel gear to turn it. The driving-wheel is mounted in bearings Q by its shaft R, and has crank-pin S for turning it. On the shaft R is a shifting-screw, T, with right-hand threads U, and left-hand threads V, for driving the feed-screw W by a worm on it. This screw T is fitted to slide on the shaft R to shift the threads U and V for reversing the motion of the worm. It is fitted on a spline, X, to be turned by the shaft. The feed-screw connects with the mandrel by a long nut, Y, and an arm, Z, which is crotched in the end connected with the mandrel.

The machine being adjusted to the lathe-center, as shown at Fig. 2, is turned by the crank S, with one hand, to revolve and traverse the grinder, and the worm T is shifted from time to time, by the other hand, when it is required to change the motion of the feed-screw.

The worm T bears at its ends against the shoulders A′ on the shaft R to be held in gear with the worm on the feed-screw. The frame is pivoted to the socket-piece D, so that it can be turned to arrange the mandrel parallel with the side of the lathe-point to be dressed.

B′ represents a drill-holding attachment on the mandrel. G′ is a plate, and D′ a screw, comprising a clamp by which the machine is to be clamped on a bench or other support, to be used as a drilling-machine.

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

The combination of a traversing lathe-center grinder, a frame adapted for being supported in the tool-post of a lathe, and an automatic feed-screw for traversing the grinder, the grinder and the feed-screw being actuated independently of the lathe, substantially as specified.

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