G. H. ARNOLD.

Machines for Dressing Mill-Stones.

No. 156,690. Patented Nov. 10, 1874.

Fig. 1

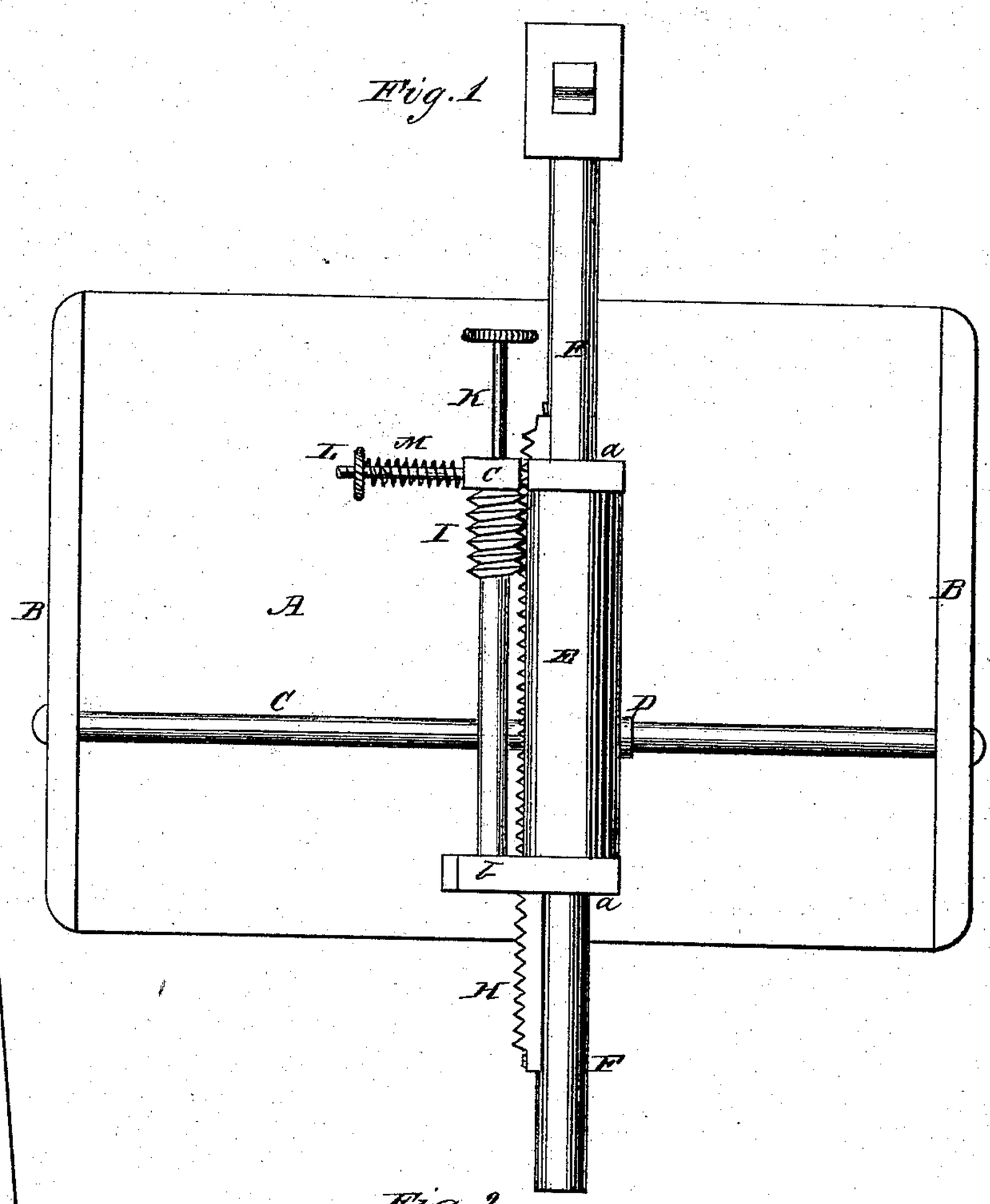
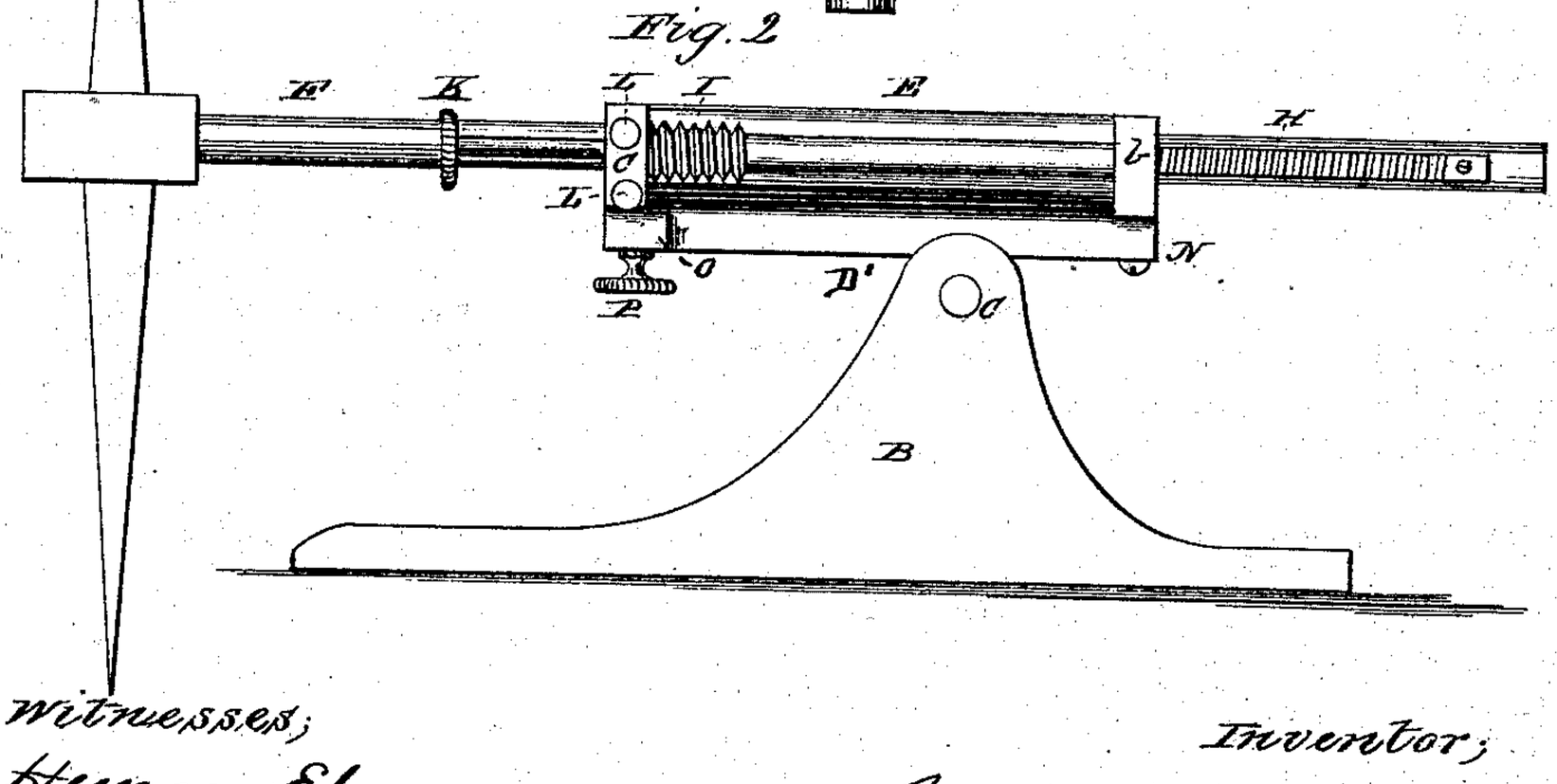


Fig. 2



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UNITED STATES PATENT OFFICE.

GEORGE H. ARNOLD, OF BIRMINGHAM, OHIO.

IMPROVEMENT IN MACHINES FOR DRESSING MILLLSTONES.

Specification forming part of Letters Patent No. **156,690**, dated November 10, 1874; application filed August 15, 1874.

To all whom it may concern:

Be it known that I, GEORGE H. ARNOLD, of Birmingham, in the county of Erie and State of Ohio, have invented a new and valuable Improvement in Millstone-Dressing Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a plan view of my invention, and Fig. 2 is an end view of the same.

This invention has relation to machines for dressing millstones, in which an ordinary-shaped mill-pick is inserted into a handle which is worked and guided by means of regulating apparatus; and the novelty consists in the construction and arrangement of the parts, as will be hereinafter more fully described and claimed.

In the accompanying drawings, A represents the base, made of suitable material, and having the sides B arranged at right angles to the plane of the base A, to which the shaft C is fastened. E represents the handle-socket, made hollow to receive the adjustable pick-handle F. To the under side of this socket E is fastened a bar, having a journal-bearing, D, which slides upon the shaft C. To the pick-handle F is fastened a rack, H, in which the worm-screw I works to adjust the pick.

By turning the shaft K, which operates the worm I, the pick-handle can be moved back and forth at right angles to the shaft C, thereby making an adjustment for other channels. The worm-screw I has its bearings in the extensions *b* and *c* of the socket E. The bearing *c* is adjustable on the studs L, being held in place by the tension-springs M. Thus, an accurate and fine adjustment can be obtained; also, by moving the forward end of the shaft K and the bearing *c* on the studs L from the socket E, the rack and worm will be thrown out of gearing.

It will be seen by placing the base in proper position upon the millstone to be cut, by working the pick on the shaft C as a center, and at the same time sliding the bearing D of the socket E along the shaft C, a channel is cut parallel to the shaft.

To adjust the pick for a second channel the shaft K, which is attached to the upper end of the worm I, is turned by the hand, thereby transmitting motion to the rack H through the medium of the worm-screw, extending the pick-handle either forward or backward of the finished channel at right angles to the shaft C.

To adjust the cutting-edge of the pick parallel to or at any required angle with the shaft *c*, the upper end of the bearing D is provided with a curved slot in which a set-screw, P, is placed, and the socket E is held in position by tightening the screw when the desired angle of the pick is obtained.

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

1. The combination of the adjustable pick-handle F, provided with the rack H and the worm-screw I, operating substantially in the manner as and for the purpose set forth.

2. In combination with the rack H of the adjustable pick-handle F, the studs L, sliding bearing C, tension-springs M, and the worm-screw I, as and for the purpose set forth.

3. The bearing-block D, having its upper end slotted, in combination with the pick-handle F and set-screw P, as and for the purpose set forth.

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