

(No Model.)

J. H. WOOSTER.

MILLSTONE DRIVER.

No. 256,787.

Patented Apr. 18, 1882.

Fig. 1.

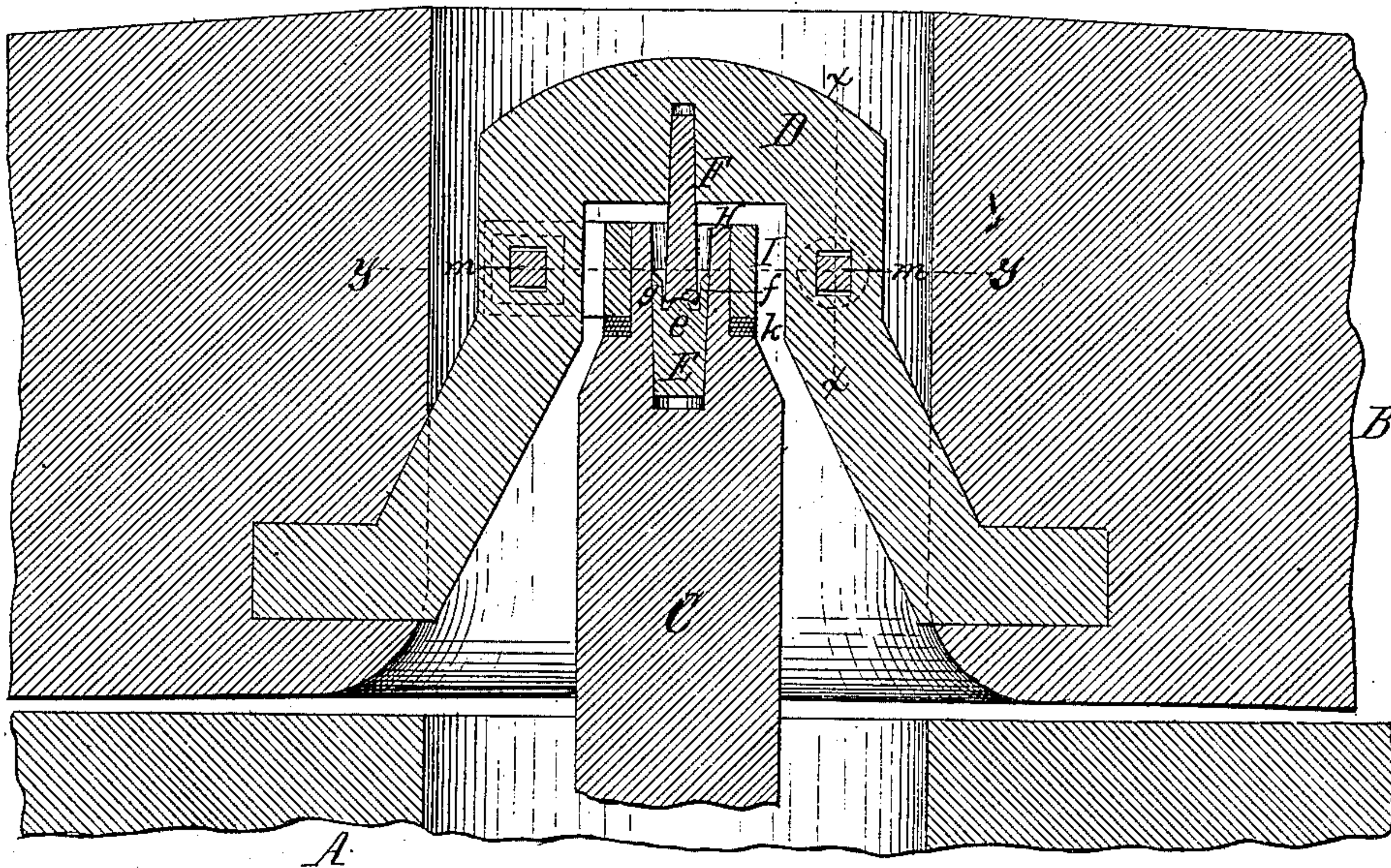


Fig. 2.

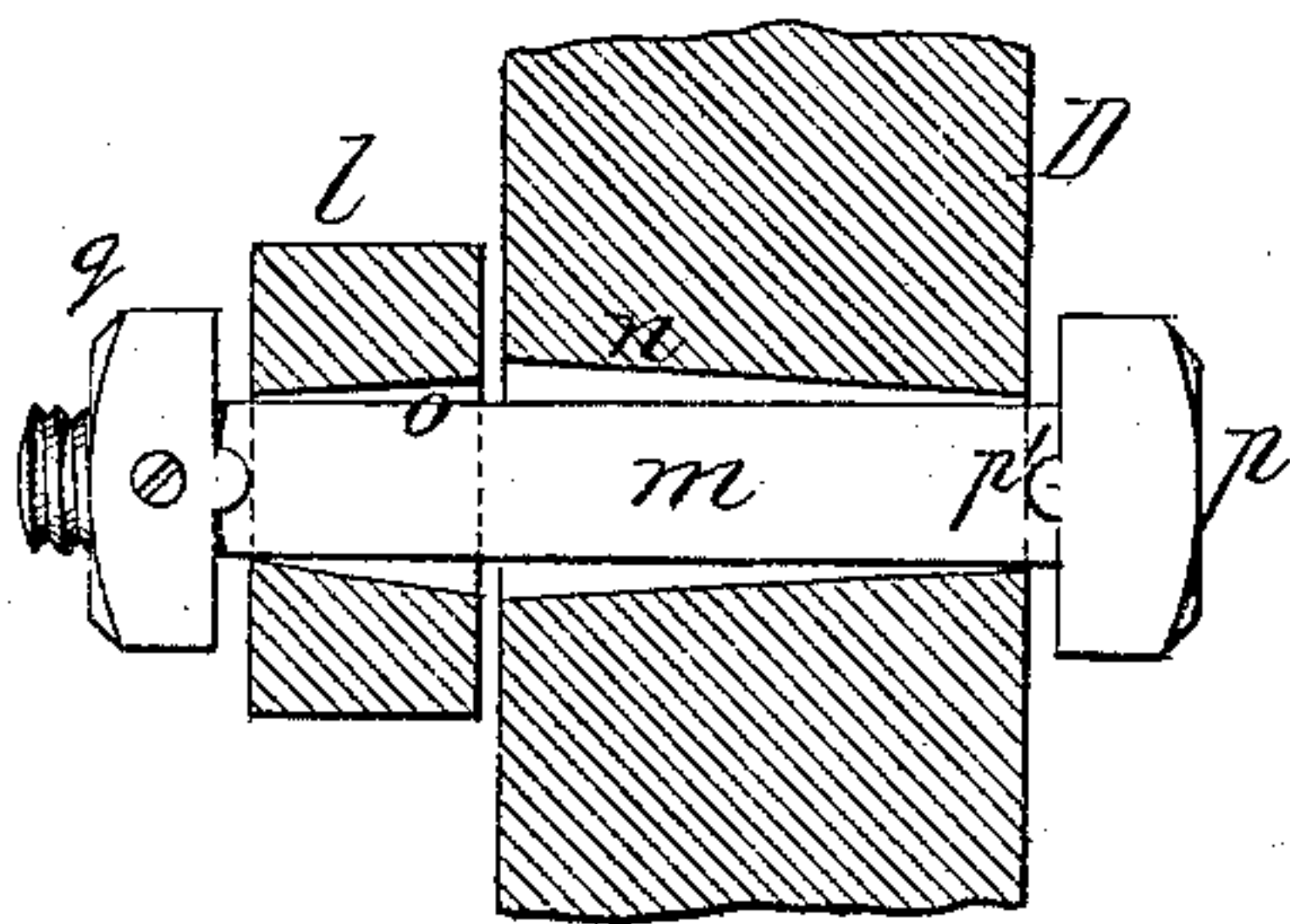


Fig. 3.

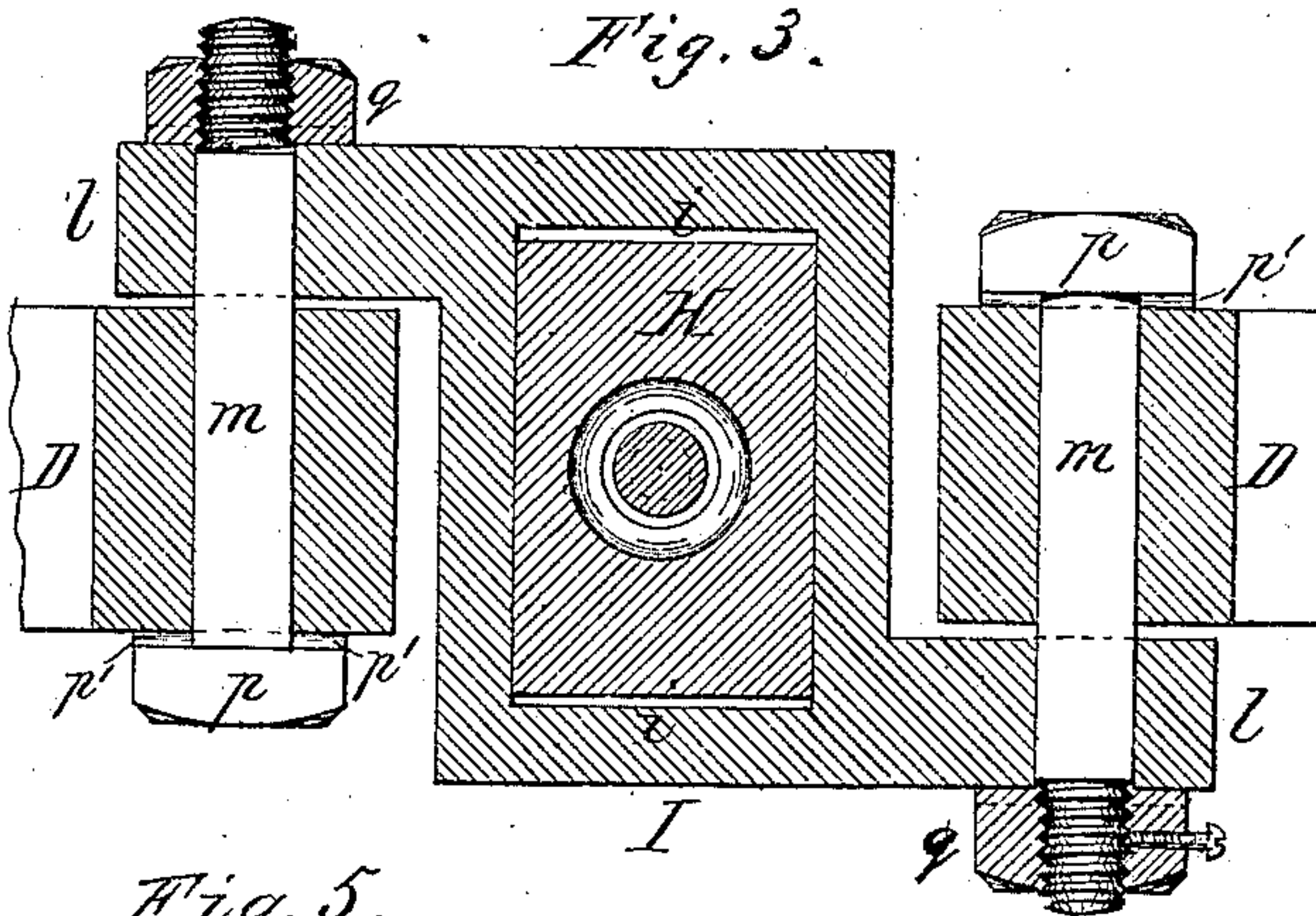


Fig. 4.

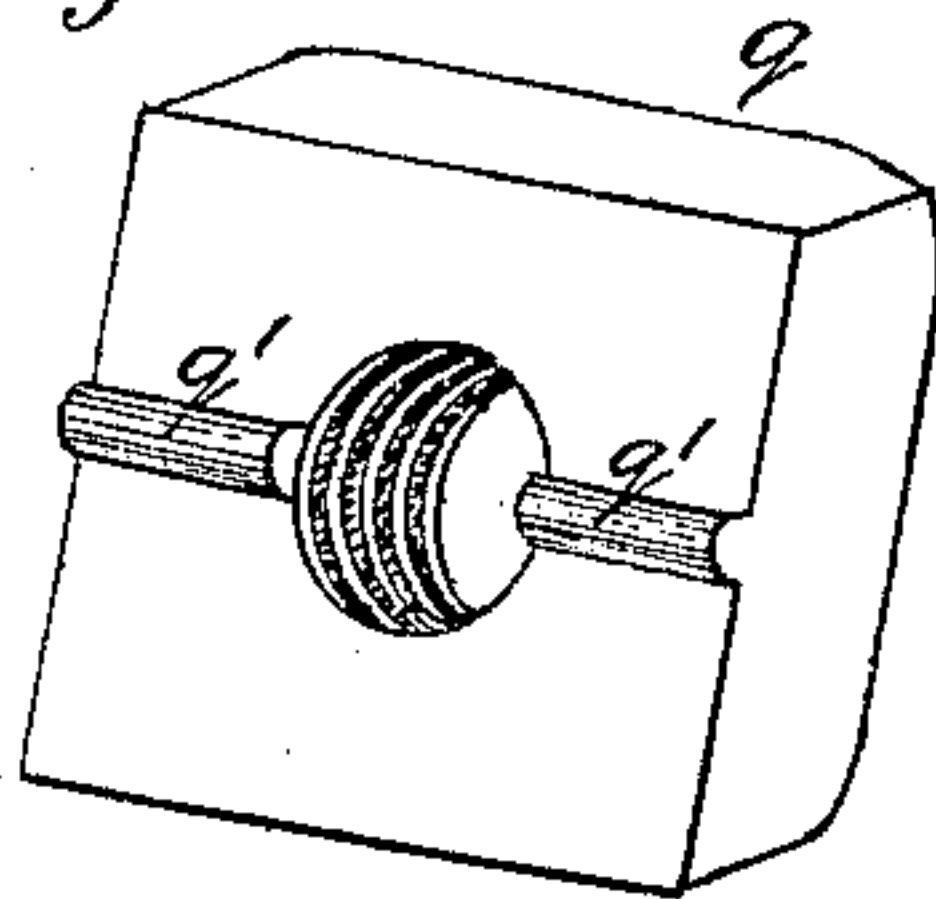
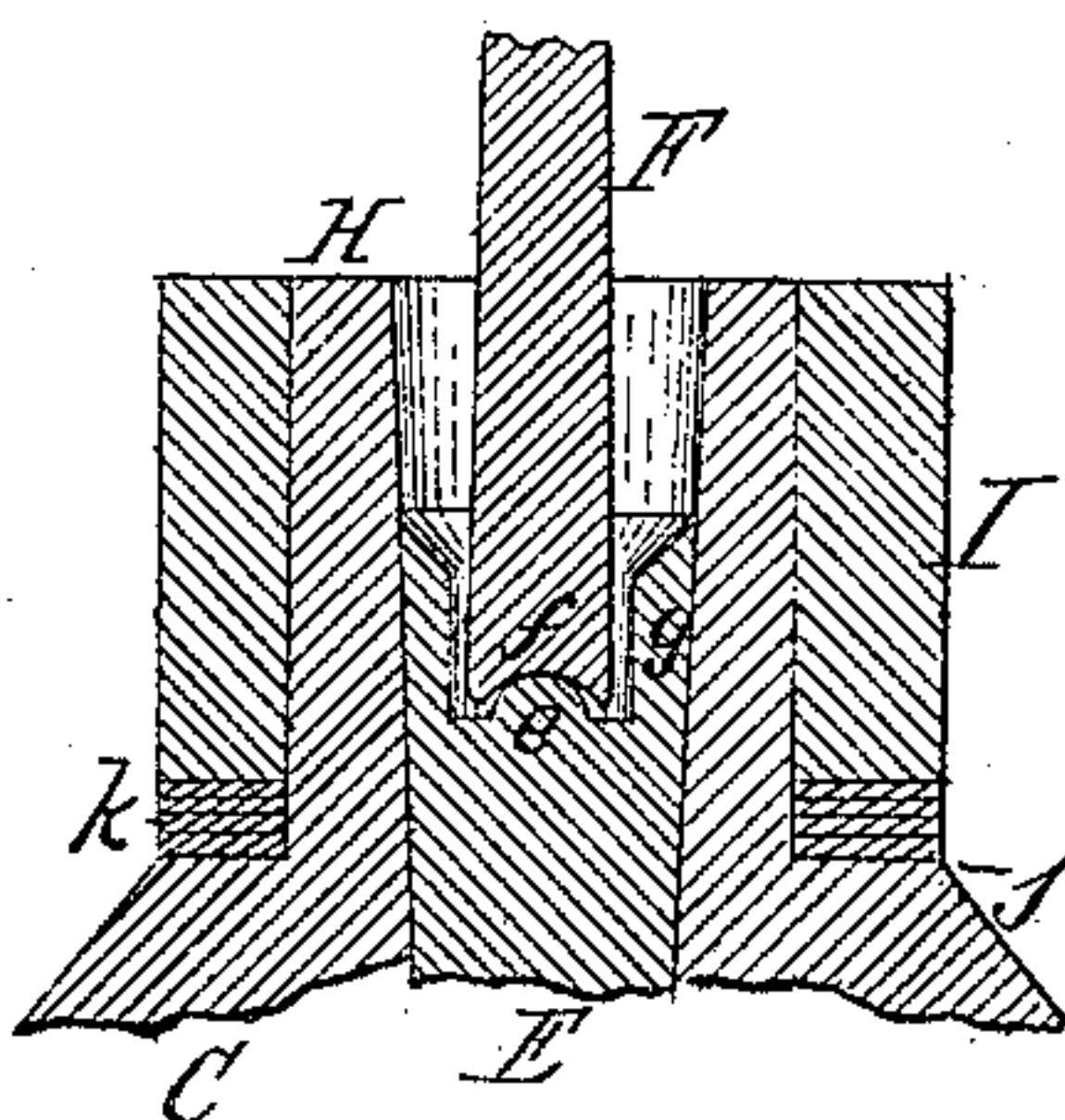


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOAB H. WOOSTER, OF STRYKERSVILLE, NEW YORK.

MILLSTONE-DRIVER.

SPECIFICATION forming part of Letters Patent No. 256,787, dated April 18, 1882.

Application filed January 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOAB H. WOOSTER, of Strykersville, in the county of Wyoming and State of New York, have invented a new and useful Improvement in Millstone-Drivers, of which the following is a specification.

This invention relates to an improvement in the mechanism whereby the running millstone is connected with the vertical spindle; and it has for its object to render the running stone self-adjusting and prevent it from raking or pressing more on one side than on the other, and to retain the runner in its proper position laterally with reference to the spindle and bed-stone.

My invention consists of the peculiar construction of the driving mechanism, as herein-after fully set forth.

In the accompanying drawings, Figure 1 is a vertical section of my improved driving mechanism. Fig. 2 is a vertical section in line *x x*, Fig. 1. Fig. 3 is a horizontal section in line *y y*, Fig. 1. Fig. 4 is a perspective view of one of the nuts. Fig. 5 is an enlarged section of the cock-head and cockeye.

Like letters of reference refer to like parts in the several figures.

A represents the bed-stone; B, the runner; C, the mill-spindle, and D the bail.

e represents the cock-head formed at the upper end of a tapering plug, E, of steel, which is inserted in a socket formed in the upper end of the spindle C.

f is the cockeye, which is formed in the lower end of a tapering plug, F, of steel, inserted in a socket formed in the bail D. The cock-head *e* is curved with a smaller radius than the cock-eye *f*, to reduce the contact-surface between these parts, thereby producing a more sensitive balancing of the runner.

g represents an annular wall, which surrounds the cock-head *e* and projects upward past the lower end of the plug F, in which the cockeye *f* is formed, whereby the plug F is confined in its central position. The parts are at the same time easily separated when the stones require dressing.

H represents the upper flattened or contracted end of the spindle, and I represents

the driver, which is fitted upon the same with sufficient play at its ends, as shown at *i*, to permit the requisite lateral movement of the driver on the shoulder *j* of the spindle.

k represents washers, which are placed on the shoulder *j* underneath the driver to permit the latter to be raised or lowered, as may be necessary. The driver is preferably constructed of cast-steel and the bail of cast-iron.

l l represent the horns of the driver, which bear against the driving sides of the bail, and *m* are the bolts, which pass through the horns of the driver and bail and secure the parts together.

n represents the opening in the bail through which the bolt *m* passes, and *o* represents the corresponding opening in the horn of the driver. These openings are enlarged from the outer sides of the bail and horn toward their contiguous sides, as clearly represented in Fig. 2.

p represents the heads of the fastening-bolts, each provided on its inner side with two horizontal projecting ribs, *p'*, arranged on opposite sides of the bolt and in line with the center thereof, and *q* represents the screw-nuts applied to the opposite ends of the bolts *m*, and provided with similar ribs, *q'*, on opposite sides of the openings in the nuts. The bolt-heads and nuts bear against the bail and horns of the driver only by the ribs *p'* and *q'*, whereby a flexible connection is formed between these parts which permits the bail and runner to freely adjust themselves.

The bolts *m* are arranged in line, or thereabout, with the contiguous faces of the cock-head and cockeye, so that the parts swing on the same axial line in adjusting themselves, whereby the adjustability of the parts is greatly increased and the balance rendered more sensitive. By this means the runner is enabled to adjust itself nicely to the face of the bed-stone when the spindle is out of tram and the injurious effects of a runner running out of tram are entirely avoided.

Instead of forming the ribs *q'* on the inner sides of the nuts *q*, they may be formed on washers interposed between the nuts *q* and the horn of the driver, and the unthreaded bodies

of the bolts *m* and the openings through the bail and the horns of the driver may be made square in cross-section to prevent the bolts from turning.

5 I claim as my invention—

The combination, with the spindle C, of the driver I, having its horns provided with inwardly-enlarged openings *o*, a bail, D, pro-

vided with inwardly-enlarged openings *n*, and bolts *m*, having their heads and nuts constructed with bearing-ribs *p' q'*, substantially as set forth.

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Witnesses:

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