

M. FRENCH.
Millstone Bush.

No. 27,709.

Patented April 3, 1860.

Fig: 2.

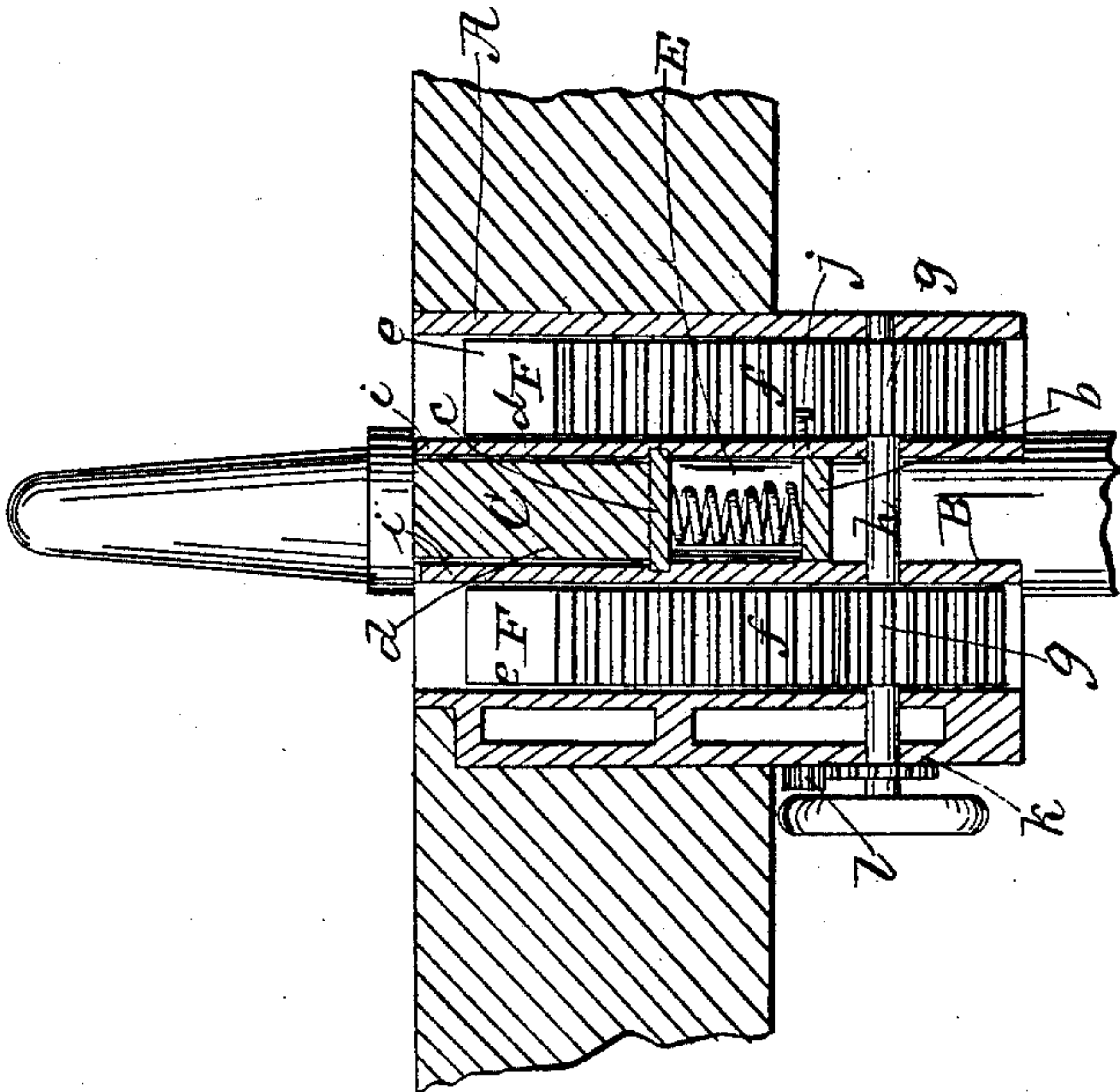
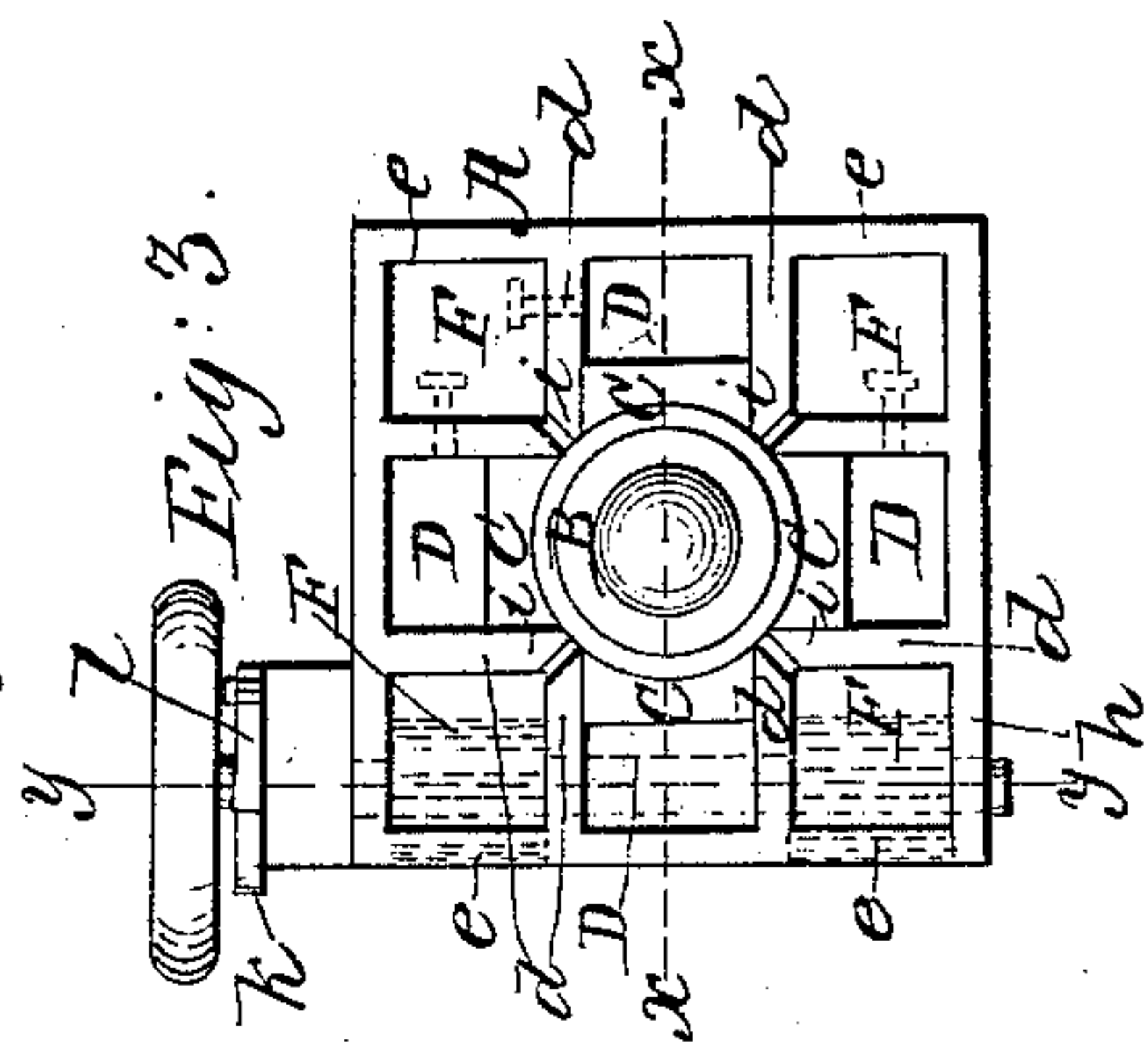
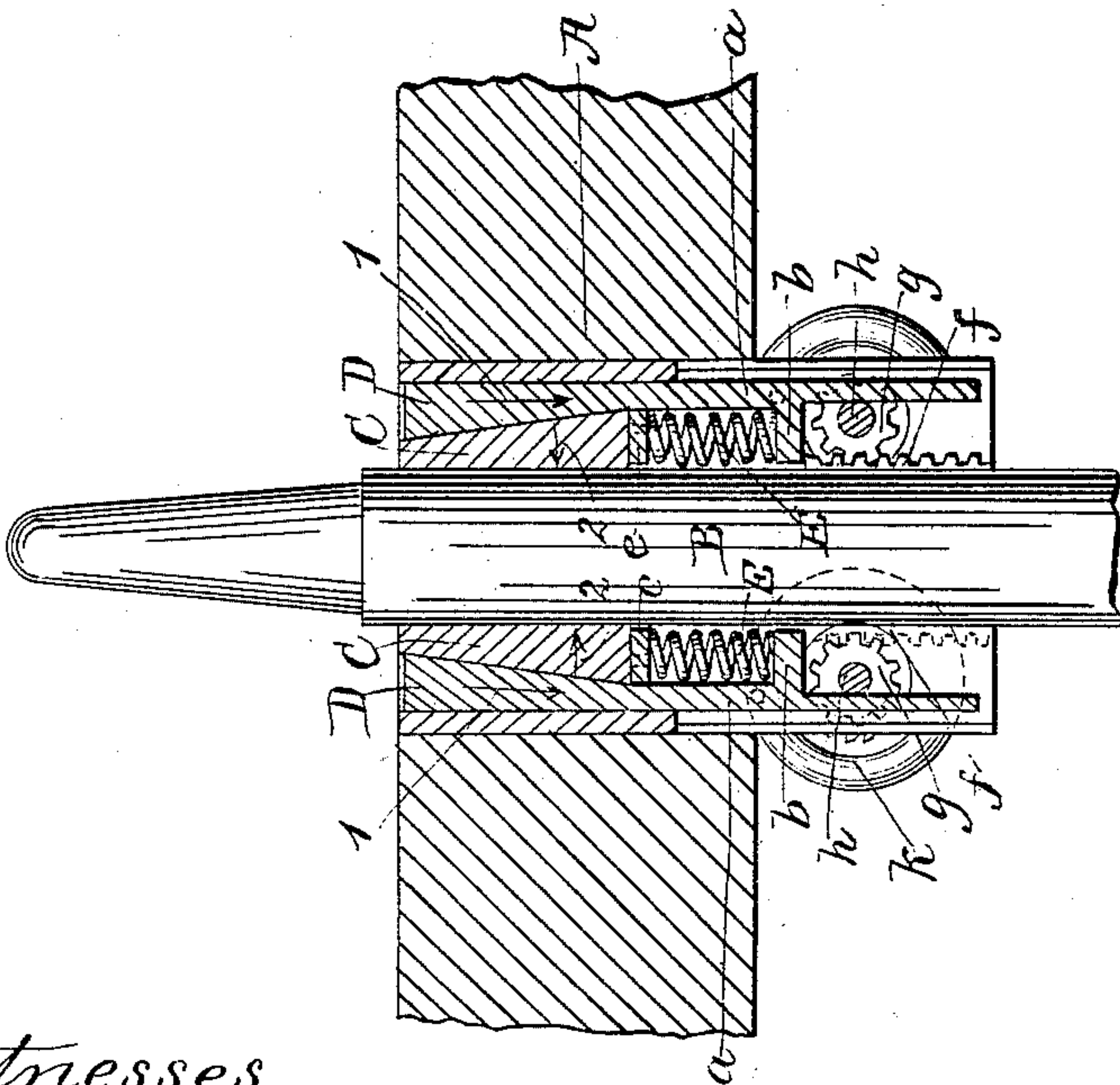


Fig: 1.



Witnesses.
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MOSES FRENCH, OF LEESVILLE, INDIANA.

MILLSTONE-BUSH.

Specification of Letters Patent No. 27,709, dated April 3, 1860.

To all whom it may concern:

Be it known that I, MOSES FRENCH, of Leesville, in the county of Lawrence and State of Indiana, have invented a new and
5 Improved Millstone-Bush; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

10 Figure 1, is a vertical section of my invention taken in the line x, x , Fig. 3; Fig. 2, is a vertical section of the same, taken in the line y, y , Fig. 3; Fig. 3, is a plan or top view of the same.

15 Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a bush for mill stones that will be self-adjusting, or in other words one that will
20 compensate automatically for the wear of the wedges and at the same time afford facility for the ready lubrication of the spindle.

To enable those skilled in the art to fully
25 understand and construct my invention, I will proceed to describe it.

A, represents a cast metal box through the center of which the mill stone spindle B, passes. Against the spindle B, four
30 wedges C, bear and retain it in proper position. The wedges C, increase in thickness from their upper to their lower ends as shown clearly in Fig. 1, and said wedges are retained in proper position by wedges D,
35 which are tapered in a reverse manner to the wedges C, and have each a plate or strip a , attached, said plates or strips extending down to the bottom of the box A, and having horizontal steps or projections b , attached on
40 which the lower ends of spiral springs E, bear, the upper ends of said springs being attached to horizontal plates c , which are permanently secured in the box A.

The springs E, are compressed between
45 the projections b , and plates c , so that they will have a tendency to draw the wedges C, snugly against the spindle B. This will be clearly understood by referring to Fig. 1, the arrows 1, Fig. 1, indicating the down-
50 ward pressure of the wedges D, and the ar-

rows 2, the lateral pressure of the wedges C, on the spindle due to the downward pressure of the wedges D, consequent on the action of the springs E. Thus it will be seen that the wedges C, are automatically adjust- 55 ed to the spindle as they wear.

The wedges C, D, are fitted in proper compartments in the box A, formed by vertical partitions d , said partitions also forming a quadrilateral compartment e , at each corner 60 of the box as shown clearly in Fig. 3. In each compartment e , a plunger F, is placed. These plungers have each a rack f , at their lower parts into which pinions g , gear, two pinions on one shaft h gearing into two con- 65 tiguous racks, and consequently two shafts will be required, although only one is shown in Fig. 3.

The upper ends of the plungers F, may each be provided with a packing in order 70 that the oil may be retained in the compartments e , and at the inner angles of said compartments e , adjoining the spindle, a groove or channel i , is made, see Figs. 2 and 3. 75

The compartments e , above the plungers F, are supplied with oil, or other lubricating material represented by a red tint, and when the spindle requires to be lubricated, the shafts h , are simply turned by hand and 80 the plungers F, elevated so as to cause a flow of oil through the grooves i , to the spindle B. It will be seen therefore that the spindle may be lubricated with the greatest facility and without removing the upper stone. 85

I would remark that the box A, may be inserted in the lower or bed stone in any proper way but the box A, must extend some distance below the stone in order to render the shaft h , accessible, and also that 90 screws j , may be employed in order to bear against the sides of the strips a , and prevent too great an action of the springs E, and a consequent unnecessary pressure of the wedges C, against the spindle B. Each 95 shaft h , I would also remark, is provided with a ratchet k , into which pawls l , catch to retain the plungers F, in proper position.

I do not claim separately and broadly the employment or use of adjustable wedges 100

irrespective of the arrangement herein shown and described, but,

I do claim as new and desire to secure by Letters Patent,

- 5 The employment in combination with the box A, and spindle B of the adjustable plungers F, and oil channels (i) substan-

tially as and for the purpose herein set forth and described.

MOSES FRENCH.

Witnesses:

WILLIAM ALLEN,
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