

W. Morton,
Metal Drill,

N^o. 42,011.

Patented Mar. 22, 1864.

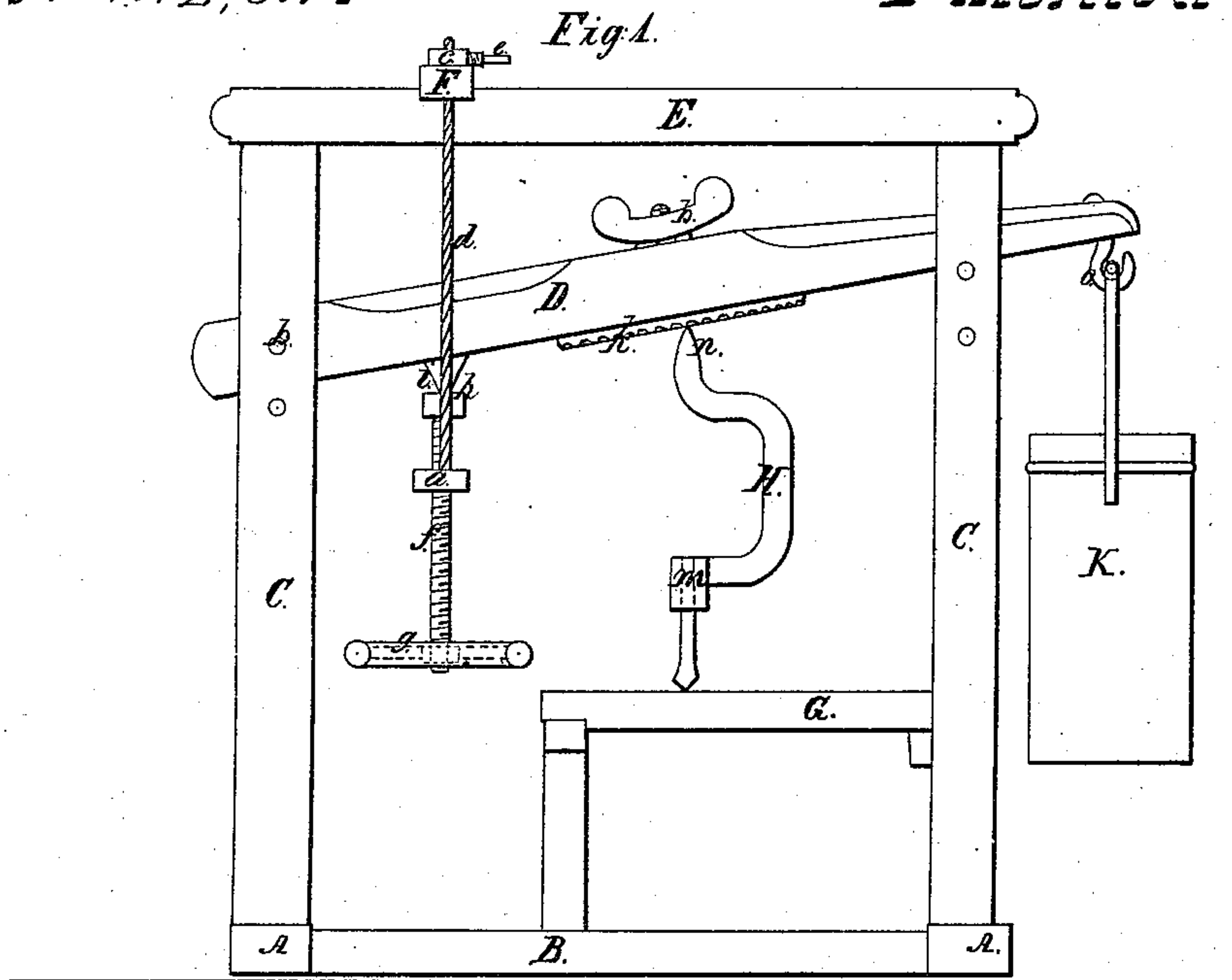


Fig. 2.

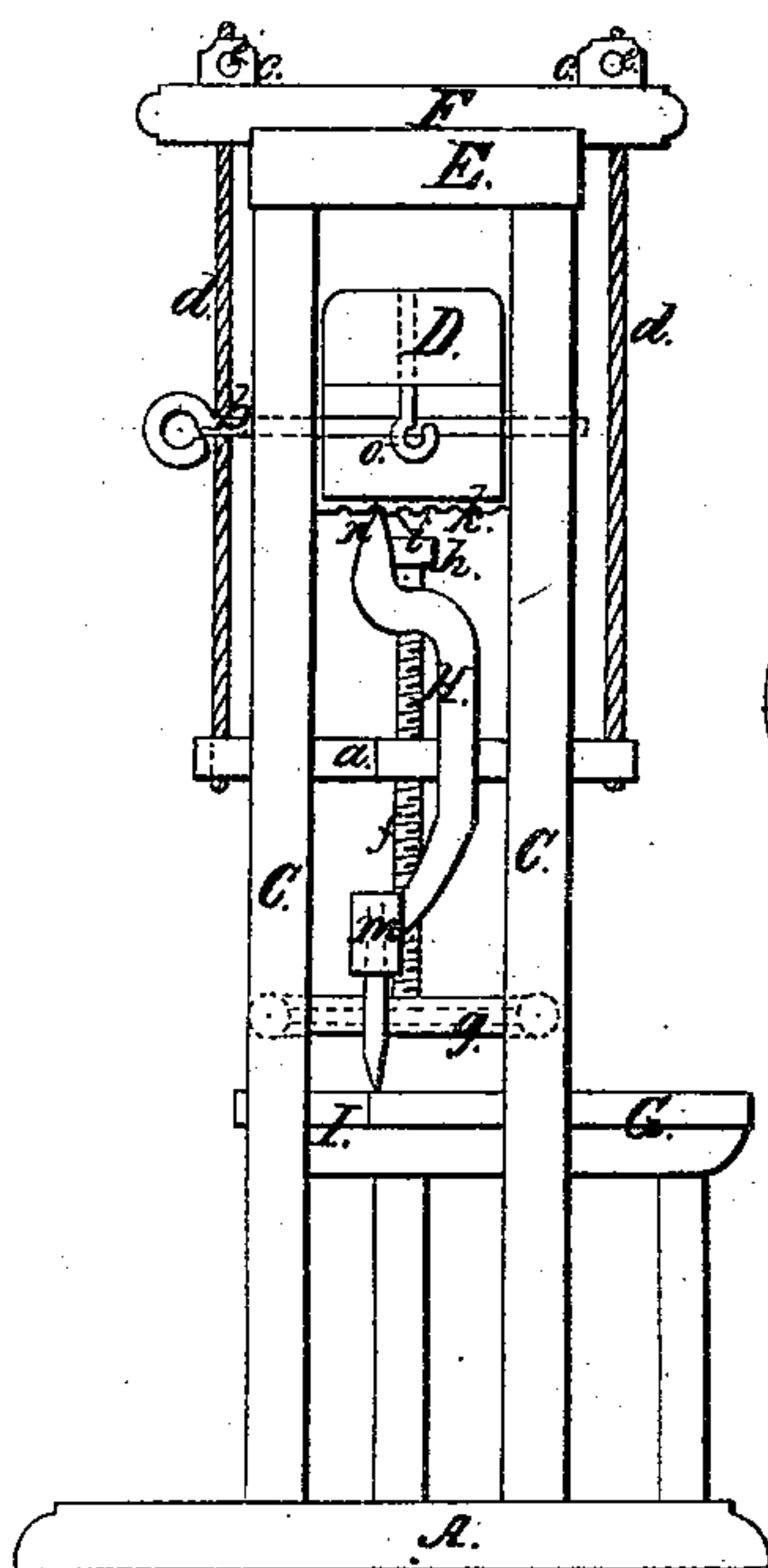
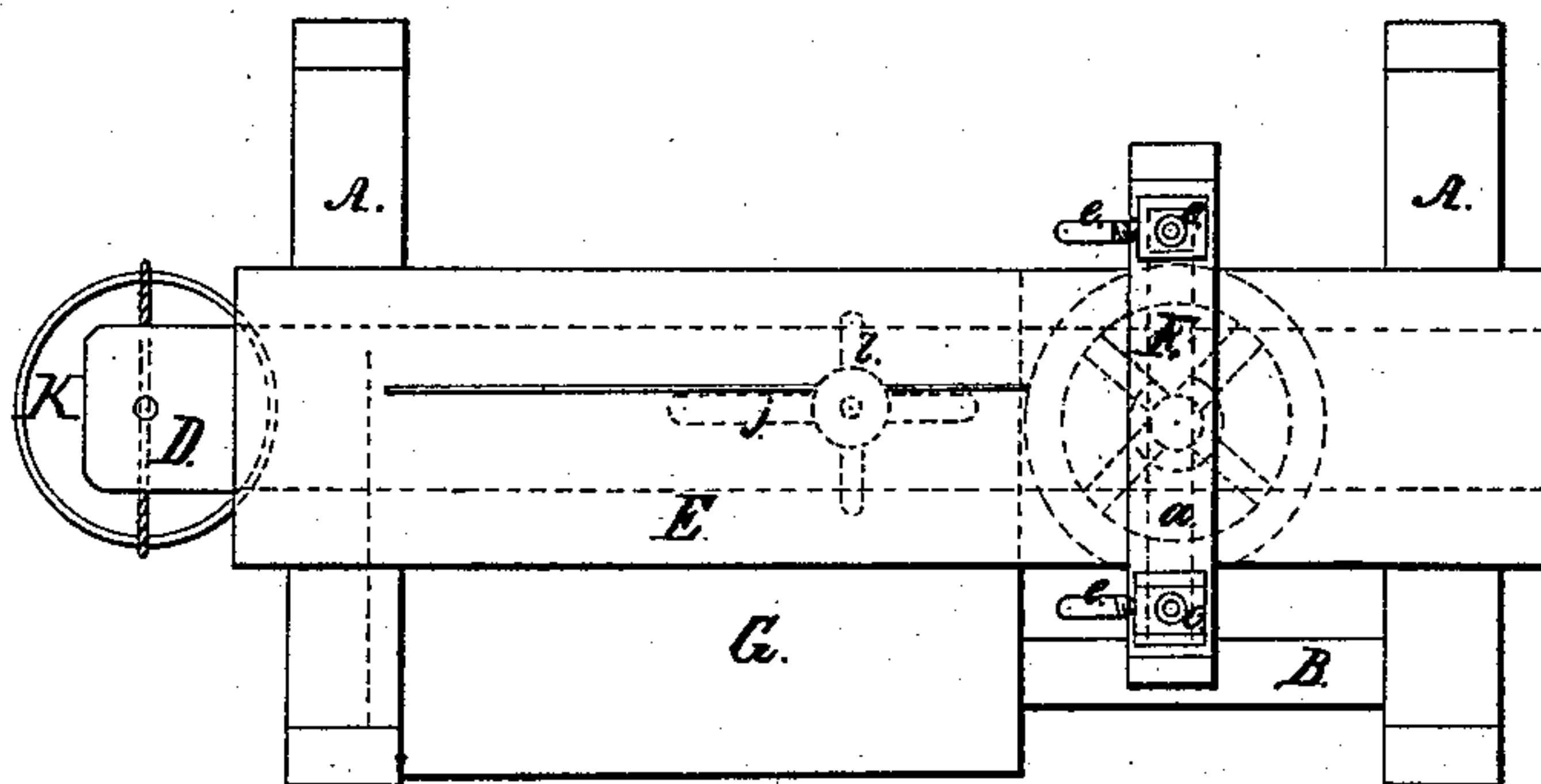


Fig. 3.



Inventor:

Wm Morton.

Witnesses:

D. M. Mefford
J. B. Woodruff

UNITED STATES PATENT OFFICE.

WILLIAM MORTON, OF WOODHULL, NEW YORK.

IMPROVEMENT IN DRILLING-MACHINES.

Specification forming part of Letters Patent No. 42,011, dated March 22, 1864.

To all whom it may concern:

Be it known that I, WILLIAM MORTON, of the town of Woodhull, in the county of Steuben, State of New York, have invented new and useful improvements in machinery for drilling metals and other substances, known as "hand-press drills," for the use of blacksmiths and other metal-workers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side elevation. Fig. 2 shows an end view. Fig. 3 shows a top view of table and press-lever, with regulating apparatus, in dotted and red lines.

The object of my invention is to control the pressure of the drill upon the substance, so that whether it be hard or soft the drill-point and cutting-edges can be preserved from breaking and any degree of pressure requisite applied; and my invention consists in the arrangement and combination of a hanging yoke or beam, being suspended on hanging rods or bolts made adjustable by sliding nuts and set-screws, and in the center of the yoke under the press-lever a regulating screw and wheel, so that the operator can regulate the pressure at his will.

To enable others skilled in the art to make and use my invention, I will describe it more fully, referring to the drawings and to the letters marked thereon.

I make a frame of timber, having foot-sills A A, connected together by timbers B B, to form the base. Into the sills A A are framed four posts, C C C C, the space being left between the two at each end of the frame of sufficient width to place a strong lever, D, one end being held in its position by a bolt or pin, b, and the other end being allowed to move freely up and down between the posts C C, they serving as the guides to keep the lever D steady. The posts C C are held in place by a

plank, E, on the top, across which rests a short timber, F, to which the hanging yoke *a* is suspended by rods *d d*, the same being made adjustable and secured by nuts *c c* and set-screws *e e*. In the center of the yoke *a* is fitted a screw, *f*, it having on the lower end a hand-wheel, *g*, and on its upper end a socket, *h*, for the purpose of receiving a cone-point, *i*, that is made fast to the under side of the lever D, which has a long open mortise, *j*, for the purpose of securing an indented plate of metal, *k*, by a bolt and thumb-nut, *l*, so that the plate *k* can be adjusted back and forth on the lever D. To the frame is attached a table or platform, *g*, on which to place the work to be drilled. On one side of the table is a movable plank, I, which can be taken off, so as to place the wheels of vehicles in a position to drill the tire after it is set, or anything that is too high to be laid on the platform *g*.

The drill-stock I find to be the most efficient for hand-power is the old-fashioned wimble H, with a socket to receive the drill *m* in one end, and a point, *n*, at the other end, to be placed in one of the indentations in the plate *k*. The pressure is obtained by bucket K, into which weights may be put, it being suspended to a hook, *o*, in the end of the lever D, so that any degree of pressure may be obtained and nicely regulated on the drill (by the operator) by the wheel *g* and screw *f*.

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

The arrangement and combination of the pressing-lever D, the adjustable hanging yoke *a*, the regulating-screw *f*, with its socket *h* and cone-point *i*, operating substantially in the manner as and for the purposes herein set forth.

WM. MORTON.

Witnesses:

EDM. F. BROWN,
J. B. WOODRUFF.