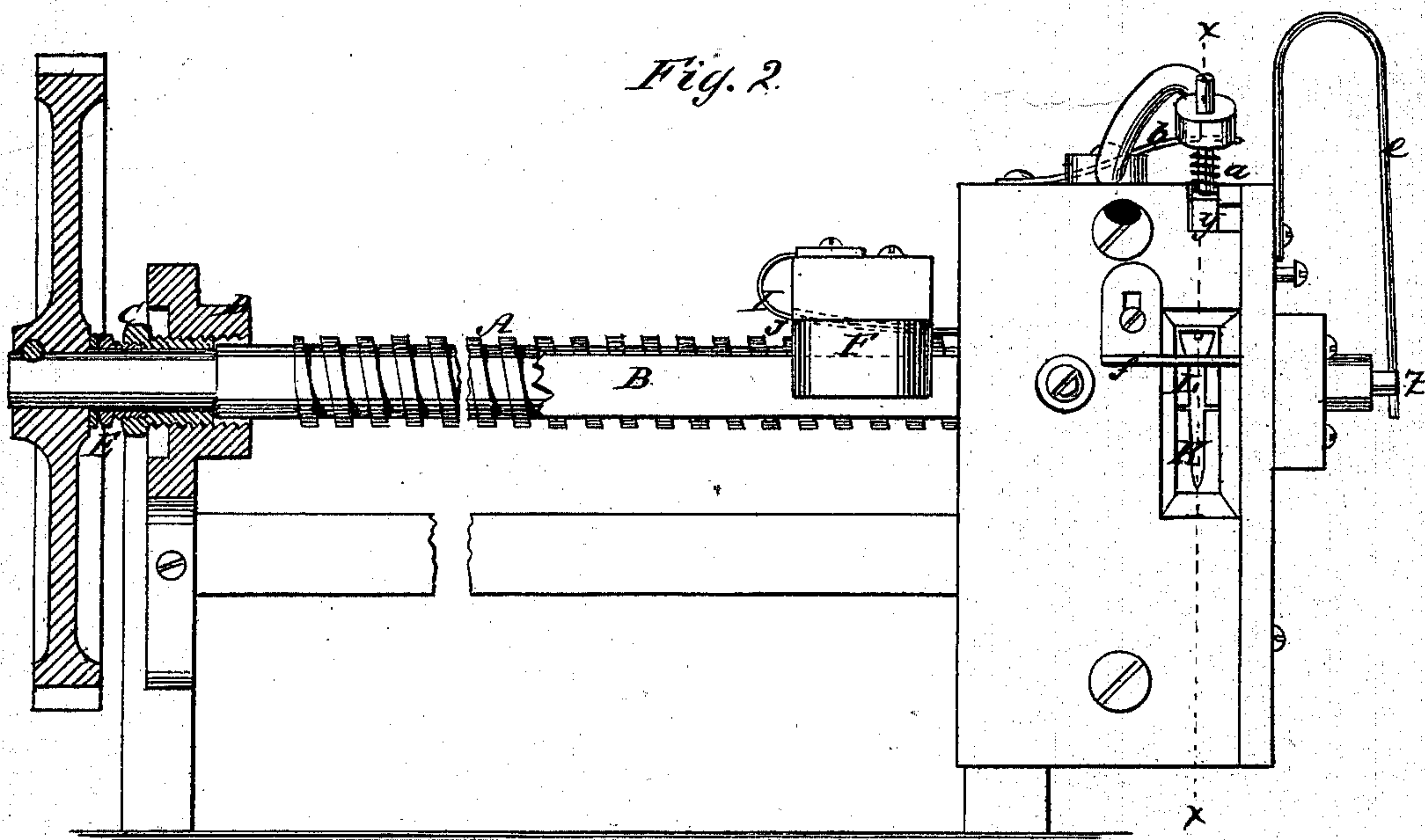
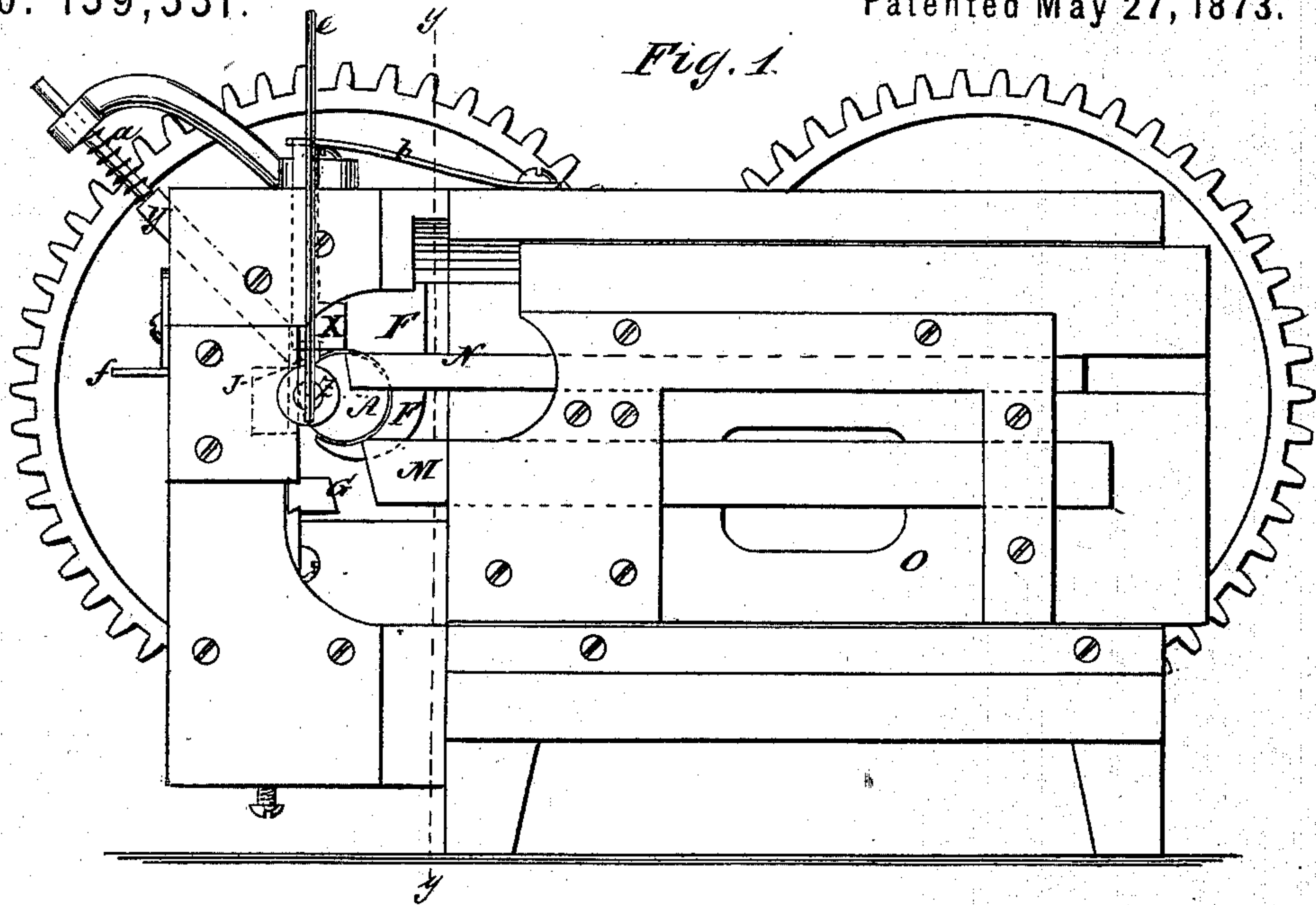


R. ROSS.

Machines for Finishing Horseshoe Nails.

No. 139,331.

Patented May 27, 1873.



Witnesses:

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C. Sedgwick

Inventor:

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Fig. 4.

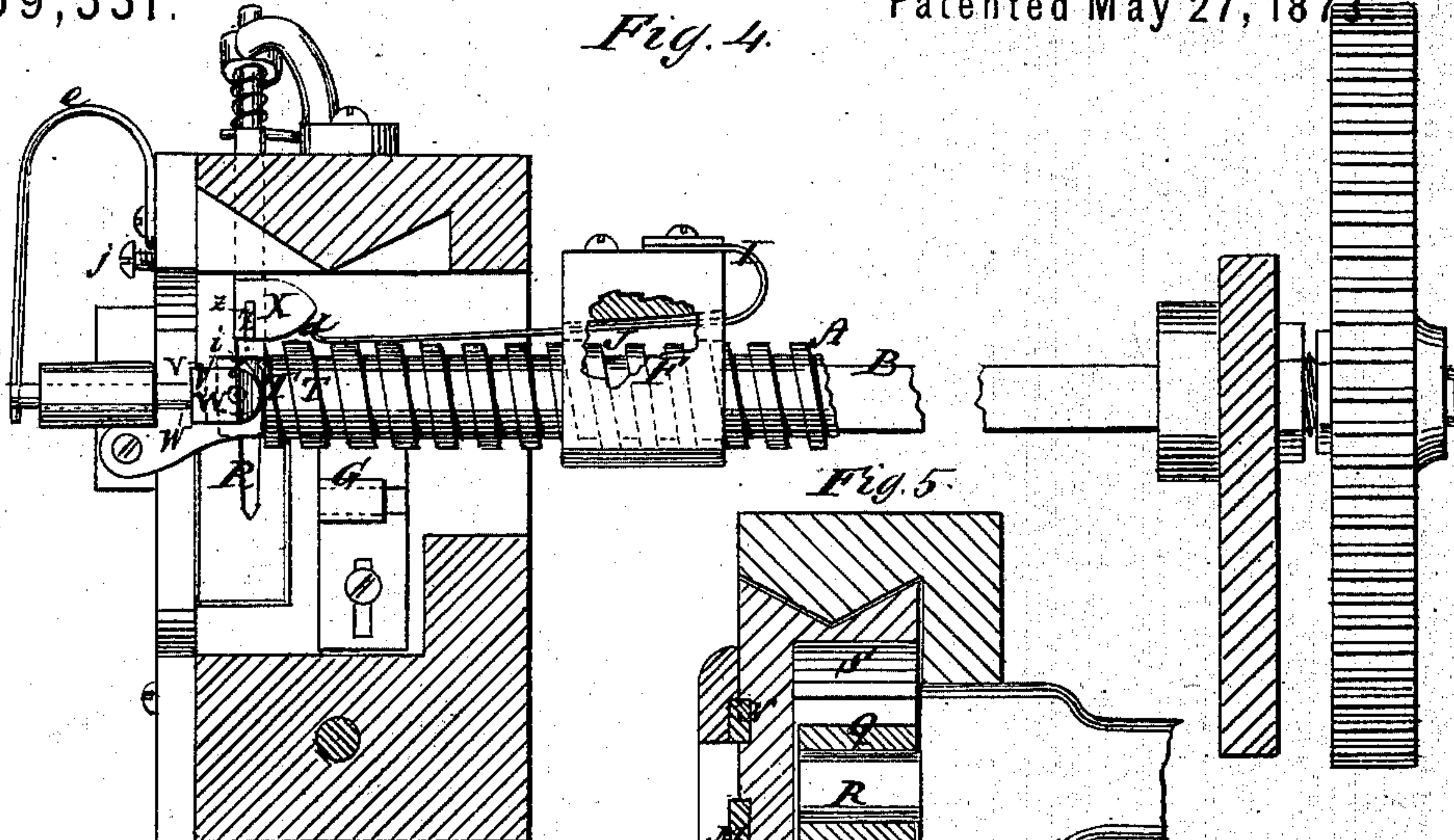


Fig. 5.

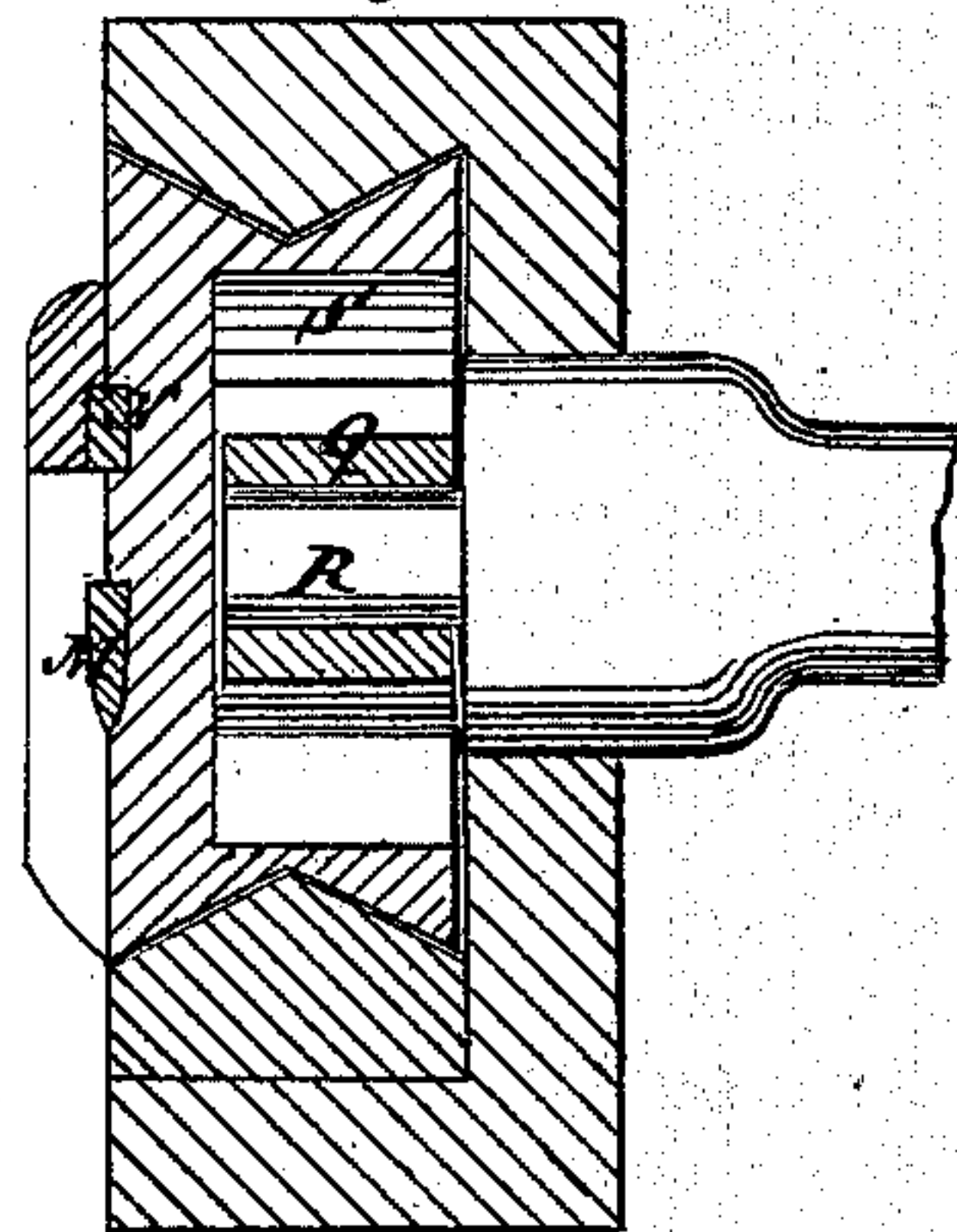
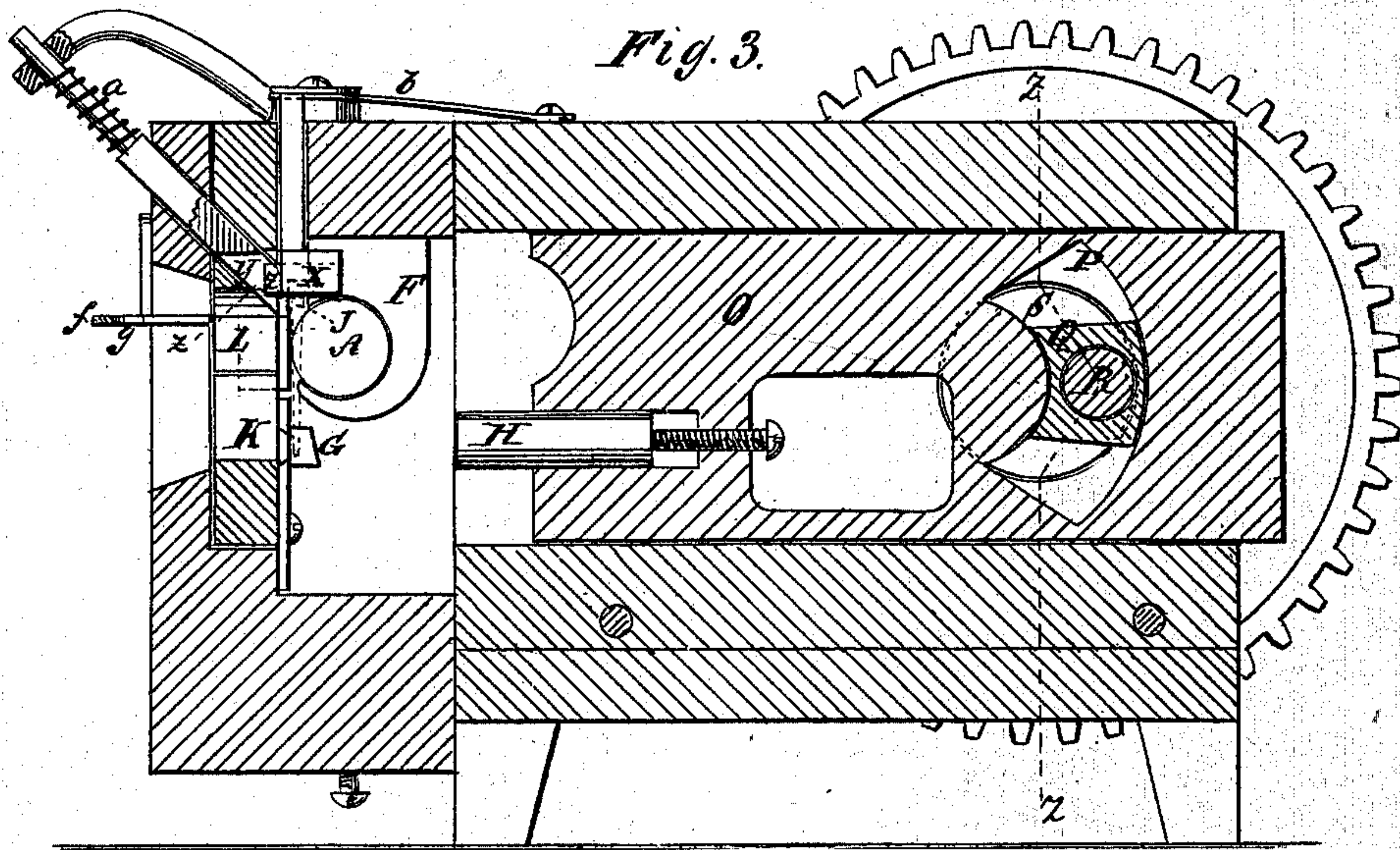


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT ROSS, OF VERGENNES, VERMONT, ASSIGNOR TO NATIONAL HORSE-
NAIL COMPANY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR FINISHING HORSESHOE-NAILS.

Specification forming part of Letters Patent No. **139,331**, dated May 27, 1873; application filed
January 6, 1873.

To all whom it may concern:

Be it known that I, ROBERT ROSS, of Vergennes, in the county of Addison and State of Vermont, have invented a new and Improved Horseshoe-Nail-Pointing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

The invention consists in certain improvements upon machines for pointing horse-shoe nails, as hereinafter described and pointed out in the claims.

Figure 1 is a vertical, and Fig. 2 a partly side and partly sectional, view. Fig. 3 is a section of Fig. 2 on lines *xx*, and Fig. 4 a section on the line *yy* of Fig. 1. Fig. 5 is a section of Fig. 3 through line *zz*.

B represents a bar, between which and the swiveled rotary screw A are held and fed the nails that are to be pointed. The threads of this screw are made wider as they approach the free end. The nail-shank passes down between two threads, while its head rests thereon and against the bar B. Thus held, it is moved toward the end of screw. On the bar B is fastened a bearing, F, in which the screw revolves, while the other end is journaled in one or more hollow screws, C E, which may be advanced or withdrawn within a nut, D, to draw back or advance the free end of screw A with respect to the beveling-dies. I is a spring that holds down the nail while it rests against the beveling-die G and receives a blow or blows from the hammer H. L K are the stationary trimming-dies, corresponding, in their form of slot to the wide side of the nail. M is the punch that acts against the point and presses it into die K, so as to trim it; while N is the punch that acts simultaneously on the upper part of nail to drive that through die L. The punches M N and hammer H are mounted on the same slide O, and are operated at the same time. S is a crank-shaft, having wrist-pin R in a block, Q, that moves in a slot, P. This constitutes the mechanism for operating slide O, so that it will move quickly forward, and also backward, until it leaves the dies, but then slowly, to afford time for the feed and adjustment of nails. The nail is held before the dies K L by the end of screw A, a block, W, a guard, W', a

head-block, X, and oblique holder Y. V is a spring-pressed holder for block W; and *b* a spring that presses the head-block X, which has a stud Z to prevent the nails from rising. Y is a slide pressed down by a spring, *a*, into an oblique hole, and curved at *d* to allow the nail-heads to pass under it. The block W is rounded on the upper corner, to fit the narrow side of nail. *f* is a receiver of the nail as it is delivered out of the dies K L.

The operation is as follows: The nail is placed between two threads of the screw. The screw being rotated carries it forward until it reaches the die G, where the hammer strikes and points it. It then passes to and off the screw-end, against which it is held by the devices W W' and X Y until the pushers M N carry it through the dies K L, the head of the nail causing the holder *y* to rise. This effectually trims the nail. If a nail is larger than those previously pointed and trimmed, the screw A is drawn back, and vice versa, if smaller; while increased space between the nails as they approach the die G, to give room for the handle, is obtained by the increasing width of threads.

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

1. The hollow screws C E and nut D, combined with feed-screw A, swiveled therein, and held in a bearing, F, as and for the purpose described.
2. The feed-screw A, having the threads widened as they approach die G, as and for the purpose set forth.
3. The spring I, combined with die G and screw A, as described, to hold down the nail while being pointed by the hammer H.
4. The guard W', block W, head-block X, and inclined holder Y, combined with the screw, as described, to hold the nail in its proper position in front of dies K L.
5. The shaft, having wrist-pin working in block Q, that moves in curved slot P, in combination with slide O, as and for the purpose described.
6. The receiver *f*, combined with trimming-dies K L, as and for the purpose specified.

ROBERT ROSS.

Witnesses:

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WM. H. COLLINS.