

T. Farnsworth
Washing Mach.

No 37,439.

Patented Jan. 20. 1863.

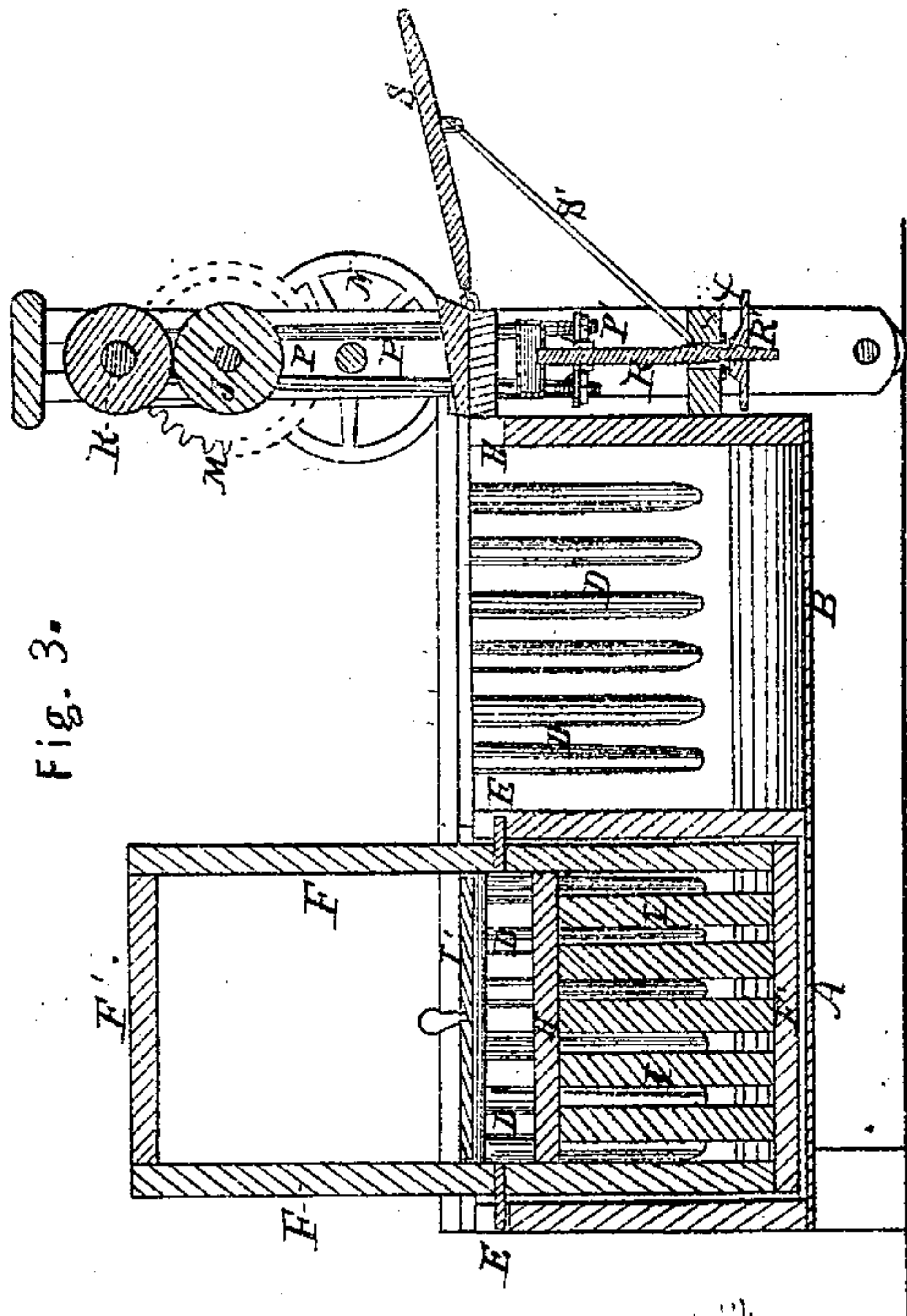


Fig. 3.

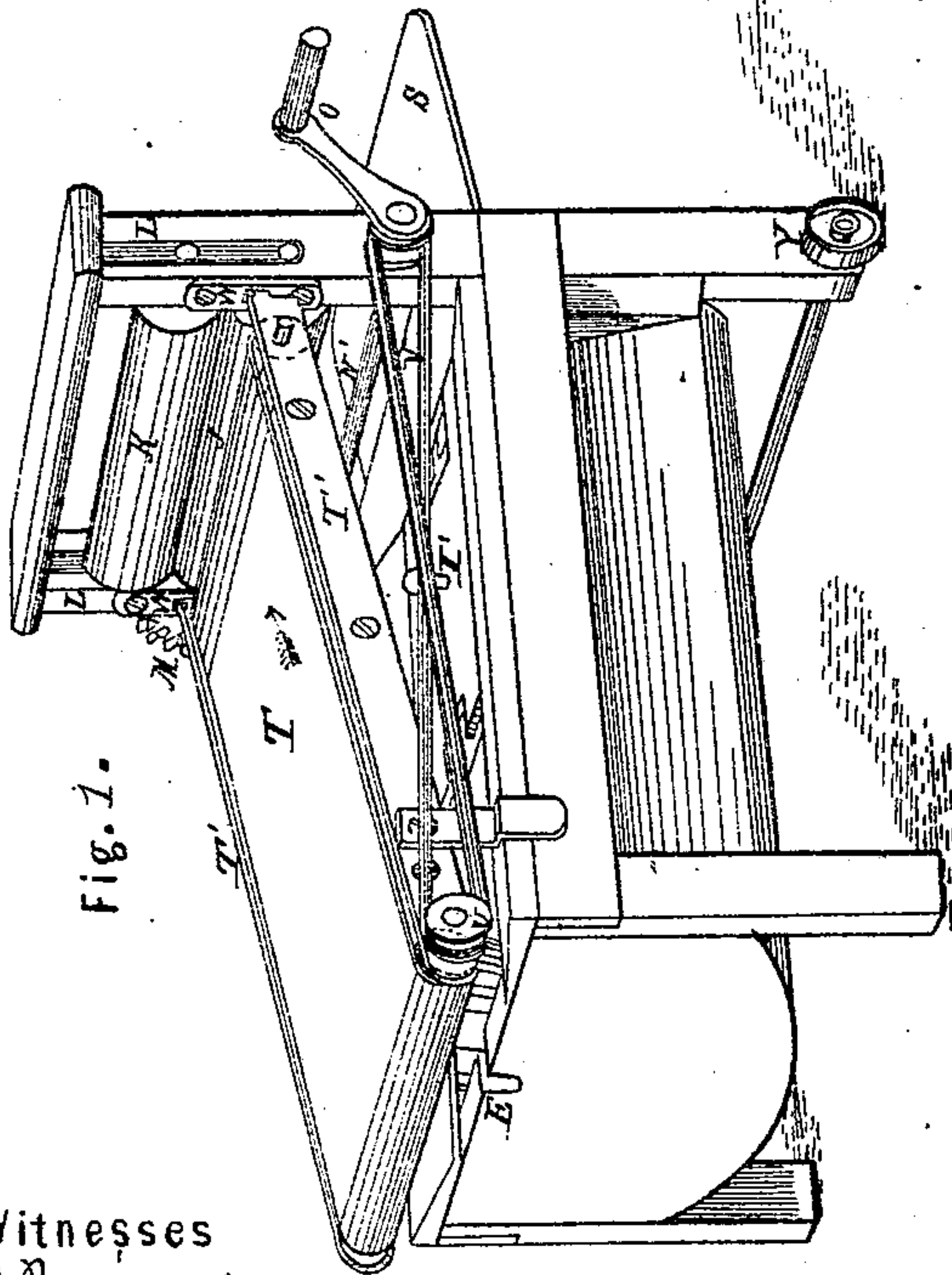


Fig. 1.

Fig. 4.

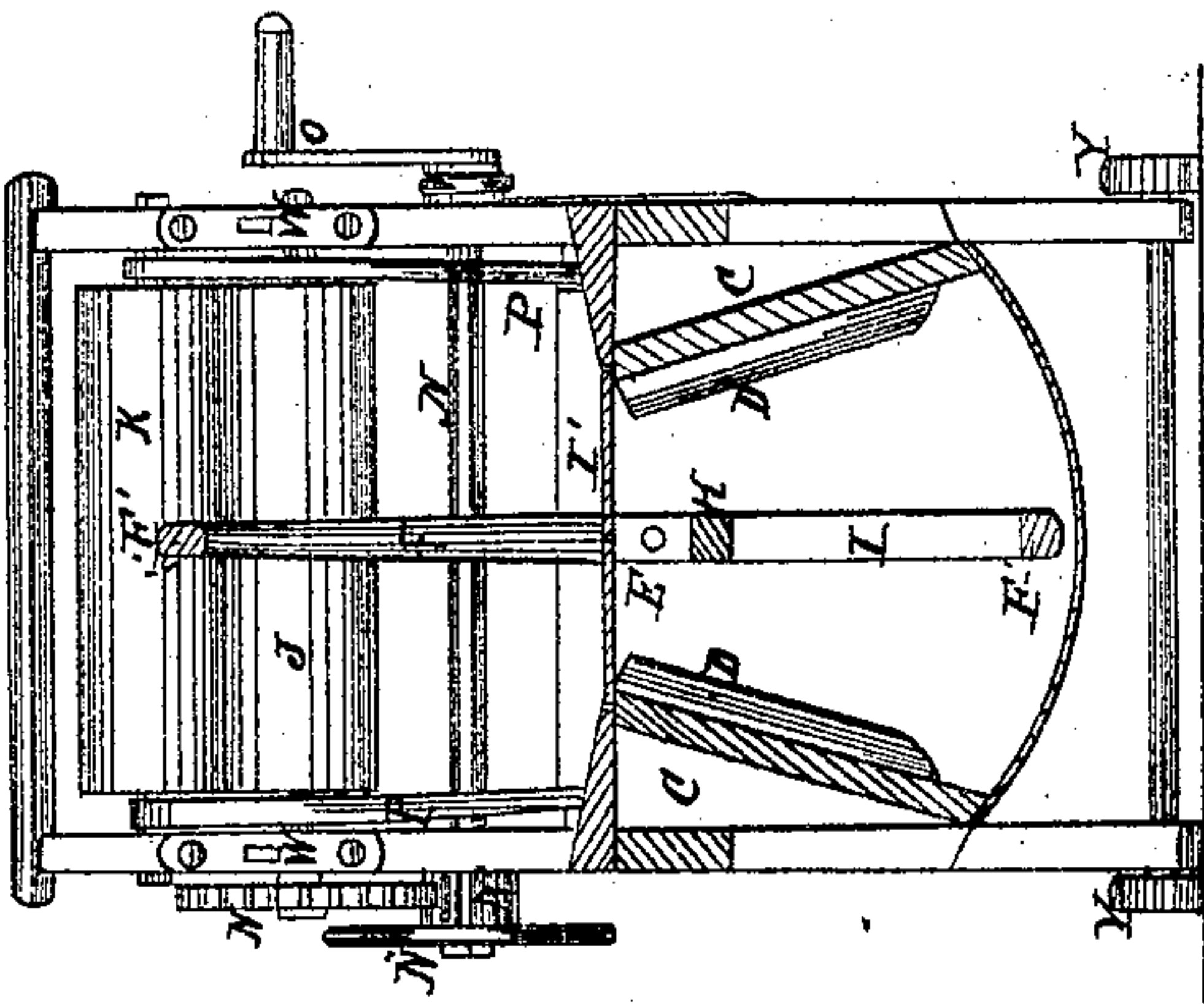


Fig. 2.

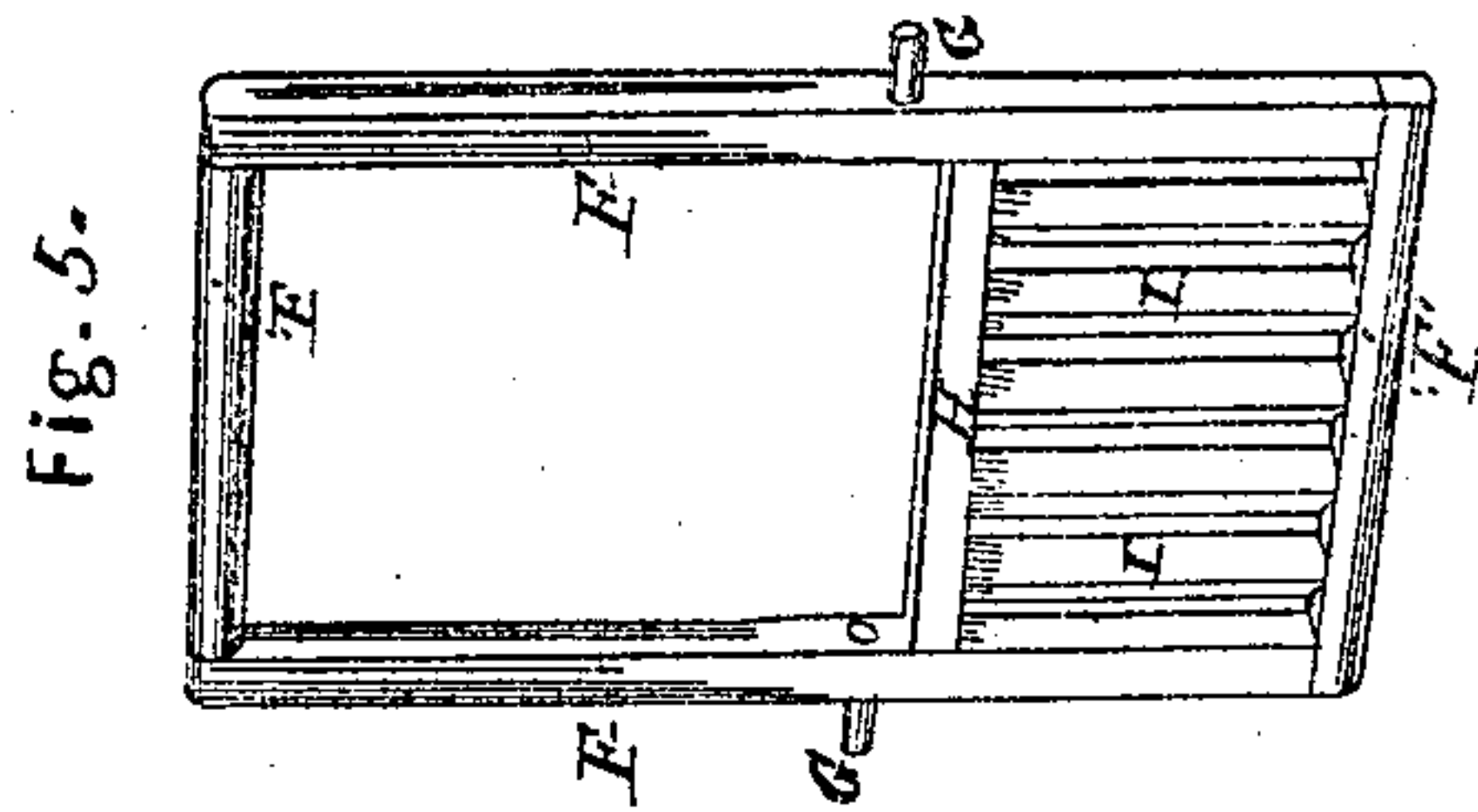
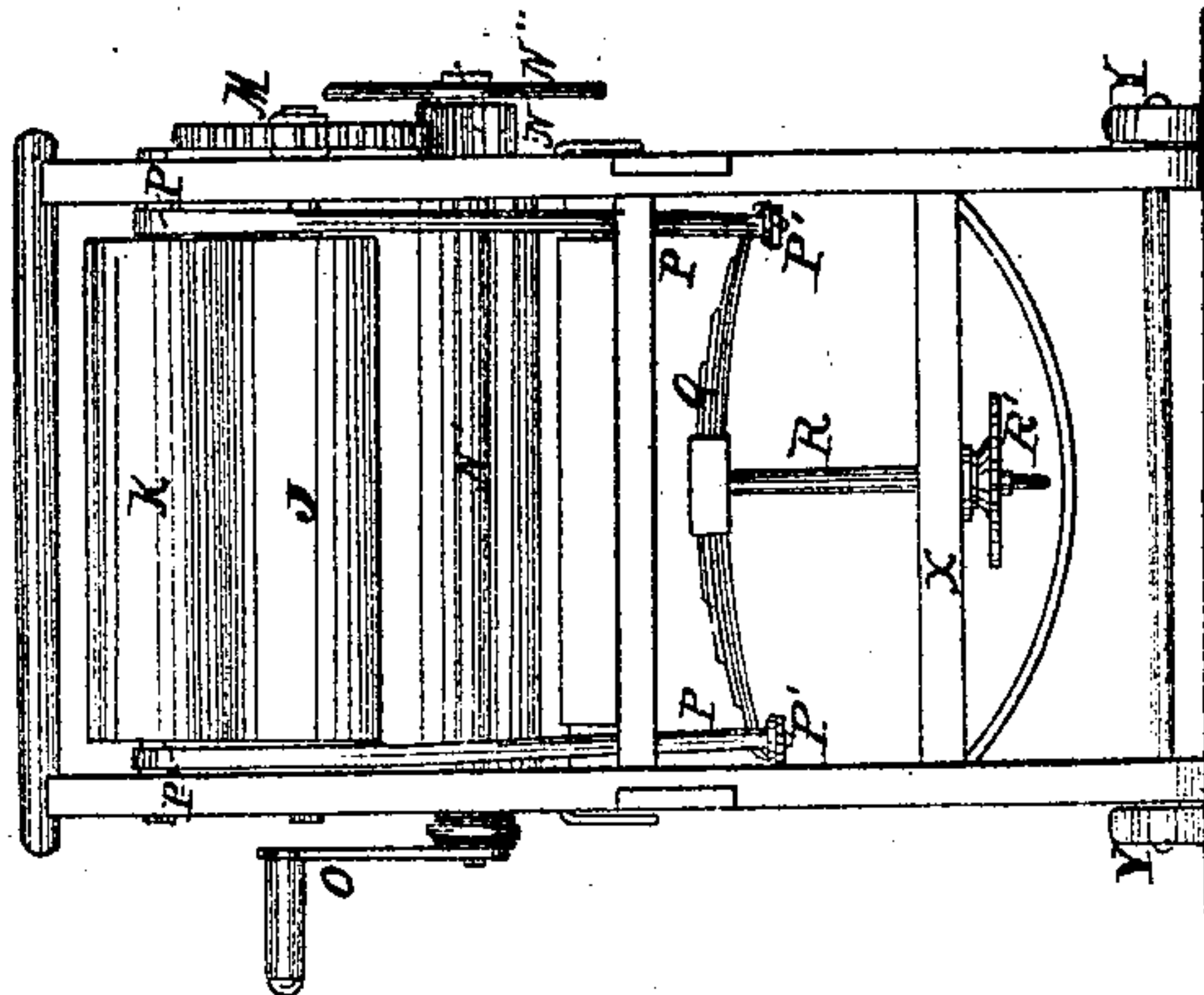


Fig. 5.

Witnesses

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THOMAS FARNSWORTH, OF CLEVELAND, OHIO.

IMPROVED COMBINED WASHING, WRINGING, AND MANGLING MACHINE.

Specification forming part of Letters Patent No. 37,439, dated January 20, 1863.

To all whom it may concern:

Be it known that I, THOMAS FARNSWORTH, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Combined Washing-Machine, Wringer, and Mangle; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is an end view. Fig. 3 is a longitudinal section. Fig. 4 is a transverse vertical section, and Fig. 5 is the beater detached.

Like letters refer to like parts in the several views.

The nature of my invention relates to the form and structure of the washing-machine, to the structure and combination therewith of a wringing-machine, and the combination therewith of an endless apron and table, in order to adapt the machine to purposes of mangling.

The body of the washing-machine consists of two sections, A and B. The sides C are made of wood, and approach each other at the top, as seen in Fig. 4, there being a stationary leaf on each side, inclining inward, to convey any water that may fall upon the surface into the sections. The inner faces of the side pieces are ribbed, as seen at D, the ribs running in a vertical direction. The bottom is composed of zinc or wood, I prefer zinc-plate, the inner surface being the radius of a circle whose center is at E, Fig. 4.

Fig. 5 represents an oscillating beater. It consists of a rectangular frame, F F', having upon each side at G projecting pins, which rest in the boxes E, and upon which the beater oscillates. The top piece, which forms a part of the oscillating frame, consists of a round rod, and forms a handle for moving the frame. Just below the pins G is a cross-bar, H, into which and the lower cross-piece is framed a series of diamond-shaped rods, I, so placed that they meet the spaces between the ribs D in the body of the machine. A cover, I', is fitted into the top of the body, and, the two sections being alike in size and structure, the cover will fit either.

In washing, the clothes are placed in one of the sections, upon one or both sides of

the beater, and supplied with suds, and by swaying the beater to and fro the desired amount of friction and pressure can be obtained. Rinsing-water or clean suds for a second washing can be placed in the other section and the beater changed from one to the other at pleasure.

The wringing apparatus consists of two rollers, J K, made of hard wood, with an iron shaft running through them. They are mounted between two end posts, which extend upward from the body of the machine for that purpose, as seen at L L. The posts are slotted, thus forming a box for the journals of the lower roller and guides for the upper one. The lower roller has a gear-wheel, M, attached to the iron shaft outside of the frame, and is operated by a pinion, N, upon the shaft N', which also carries a balance-wheel, N'', and at the opposite end the crank O is attached, by means of which rotation is given to the rollers. The pinion N being much smaller than the gear-wheel M, a slower motion of the roller and greater power results. The upper roller, K, is held in firm contact with the lower roller by means of the stirrup P, elliptical springs Q, and tension-screw R. The stirrups P consist each of an inverted U-shaped rod, the bent portion embracing the journals of the upper roller, the lower ends having a screw-nut and cross-head, P', upon which rest the ends of the elliptical spring Q. The spring consists of one, two, or more leaves secured together around the middle, and to which is attached the tension-rod R. This rod passes downward through a cross-piece of the frame X, upon the under side of which is a hand-wheel, R', by which the tension of the spring is regulated. A table, S, is hinged to the end of the machine outside of the rollers, upon which the clothes are delivered after having passed between the rollers. This table is supported by a rod, S', and by removing the rod the leaf can be let down out of the way when the table is not needed.

In order to adapt this machine to the purpose of mangling, I attach an endless apron, T. This apron is stretched upon rollers at the end of side pieces, T' T'. One of these rollers, U, at the tail end of the machine has a pulley, around which a band, V, from a similar pulley, U', on the shaft N', passes, thus giving motion to the apron in the direction of the arrow. The use of this apron is for folding the clothes

preparatory to their passing between the rollers. The frame that carries the apron is detachable, being hooked to the posts that carry the rollers by means of a hook upon the side pieces, T', and plate W, attached to the post, as shown in Fig. 1. During the process of washing and wringing this apron is removed, and when attached for mangling the beater, Fig. 5, is removed.

For the purpose of easily moving the machine from place to place, I provide the head end of the machine with a pair of truck-wheels, Y, and by placing the hands under the oppo-

site end the machine can be readily moved from place to place.

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

The sections A B, the beater, Fig. 5, the rollers J K, wheel M, and pinion N, in combination with the table S and endless-apron T, when all these parts are arranged and operated as and for the purpose specified.

THOS. FARNSWORTH.

Witnesses:

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