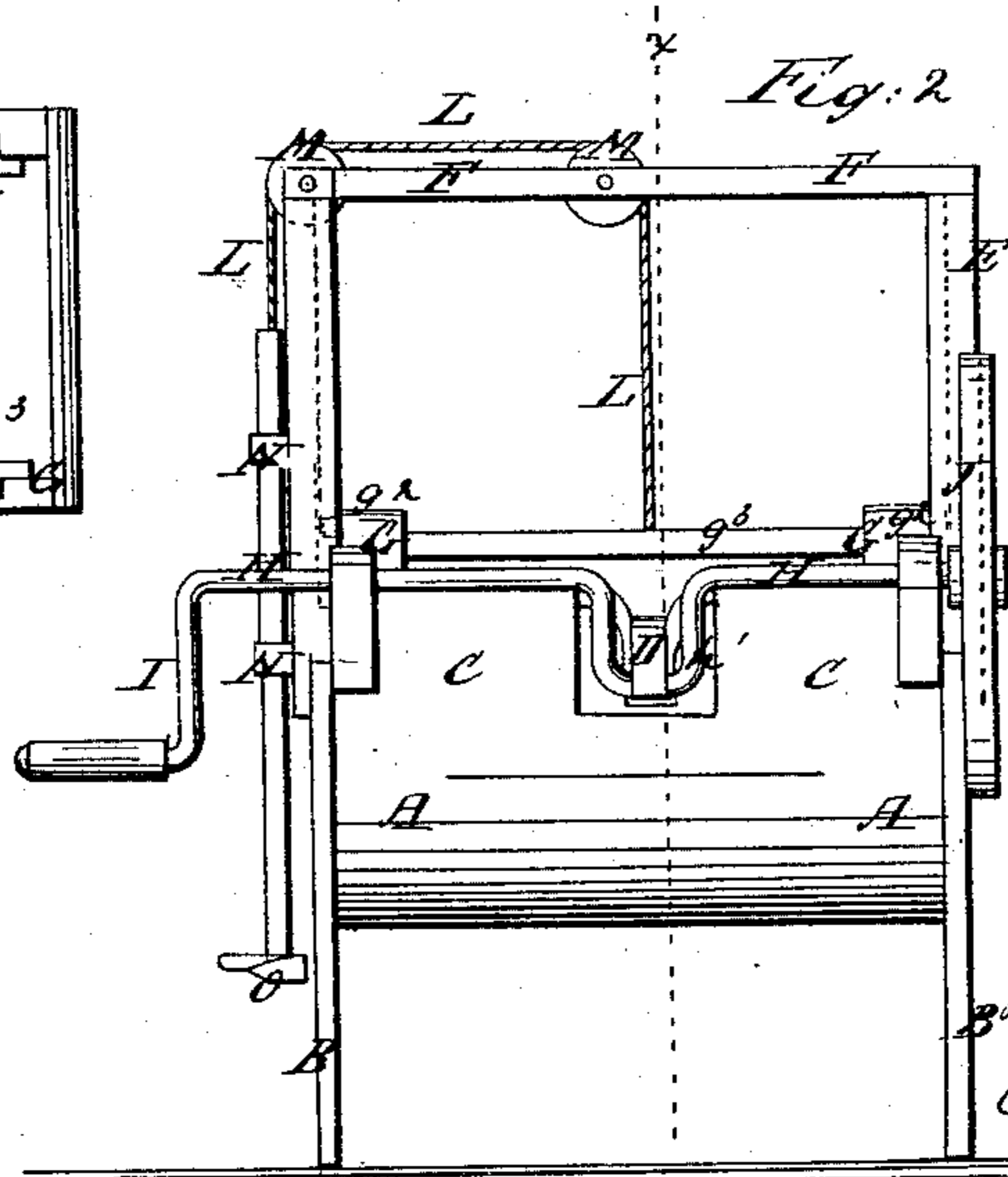
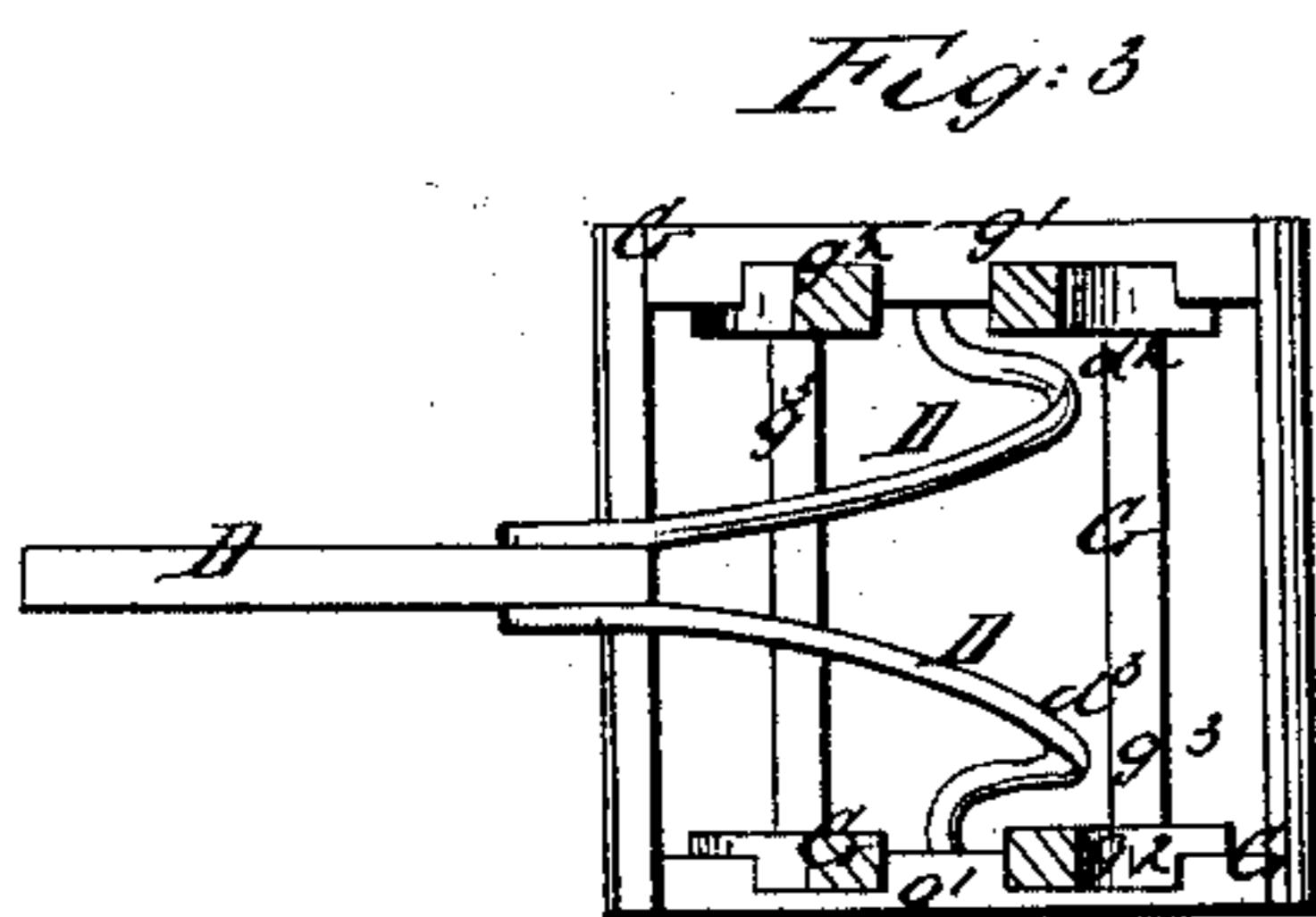
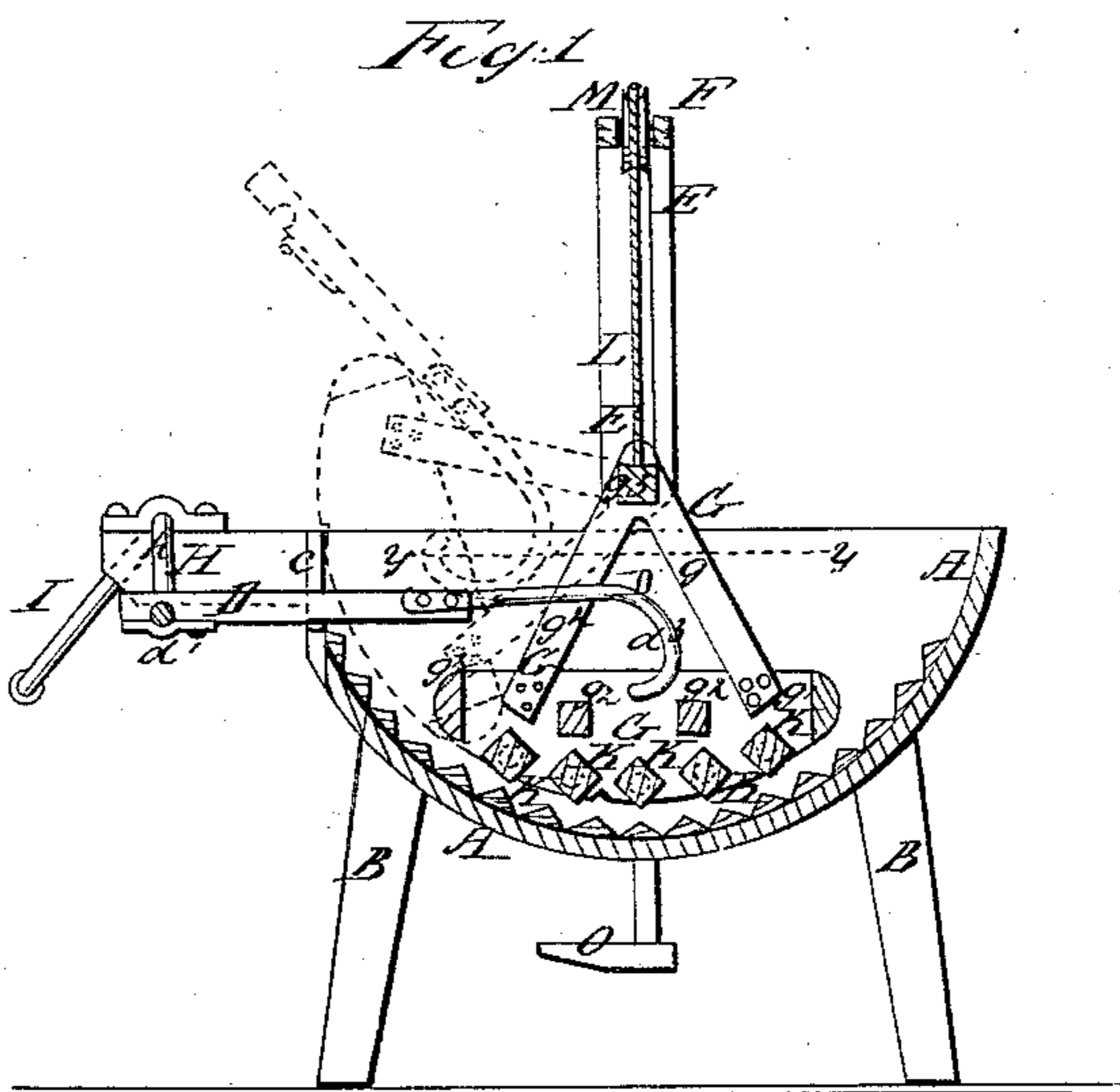


M. Newland,
Washing Machine,
N^o 62,672. *Patented Mar. 5, 1867.*



Witnesses
Theo. Tusch
G. A. Service

Inventor
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Per Wm. & Co
Attorneys.

United States Patent Office.

MARK NEWLAND, OF DAYTON, OHIO.

Letters Patent No. 62,672, dated March 5, 1867.

IMPROVED WASHING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MARK NEWLAND, of Dayton, in the county of Montgomery, and State of Ohio, have invented a new and useful improvement in Washing Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved washing machine, taken through the line *x x*, fig. 2.

Figure 2 is an end view of the same.

Figure 3 is a detail view of the rubber frame, partly in section, through line *y y*, fig. 1, the rubbing rollers being omitted.

Similar letters of reference indicate like parts.

My invention consists in the peculiar construction and arrangement of the rubber, provided with rollers, and operated by a double spring arm, and in raising and lowering the said rubber in grooved posts by means of a cord, pulleys, and treadle.

A is the box or tub of the machine, which is supported at a suitable height by the feet B. The bottom and ends of the box A are made in a continuous curve, with the exception of the piece C, which is made vertical or with its upper edge slightly inclined inward, so that it may take hold of a notch formed upon the lower edge of one or both the curved side pieces of the rubber frame. The piece C is notched for the passage of the connecting-rod D, as shown in figs. 1 and 2. The inner surface of the curved bottom and ends of the box A has angular grooves formed in it, which may be formed in the body itself of said curved bottom, or by attaching triangular slats thereto, as shown in fig. 1. E are posts attached to the sides of the box A, and grooved vertically upon their inner sides, for the reception of the journals or pivoting pins of the rubber frame. The upper ends of the posts E are connected by the cross-bar F. G is the rubber frame, the lower side pieces g^1 of which have their lower edges curved to correspond with the curve of the bottom of the box A, as shown in fig. 1. The lower curved edge of one or both the side pieces g^1 is notched to take hold of the upper edge of the end piece C so that the rubber may be held out of the way while the clothes are being put in, turned, or taken out, as shown in red, in fig. 1. The rubber is pivoted to the grooved posts E by pivoting pins formed upon or attached to the outer sides of the upper ends of the V-shaped side pieces g^2 ; and the said side pieces are held in their proper relative positions by the cross-bars g^3 . H is a crank-shaft, revolving in bearings attached to the projecting ends of the sides of the box A, or to arms attached to said box. Upon one end of the crank-shaft H is formed, or to it is attached, a crank, I, by means of which the machine is operated; and to its other end is attached a fly wheel, J. Upon the middle of the shaft H is formed a double crank, h' , to which the rubber frame is connected by the connection rod D. The outer end of the connection rod D has a notch formed in its under side, into which the crank h' enters, and is held in place by the button d^1 , as shown in fig. 1. The rear end of the connecting-rod D branches into two spring arms, d^2 and d^3 , which are curved, as shown in figs. 1 and 3, so as to spring in two directions. That is to say, they spring laterally to enable their ends to enter the holes in the curved side pieces g^1 of the rubber frame G; and they also spring longitudinally to relieve the strain should the rubber encounter any obstruction while being used, and to give a more effective movement to the rubber than it could have if pivoted to a rigid connecting-rod. K, are square rollers, the ends of which are pivoted to the side pieces g^1 , a little above their curved lower edges, and which are revolved by the friction of the clothes being washed. By giving a square form to the rollers K, I cause them to produce a better result, by having more of a rubbing movement than they could have if made in any other form, and at the same time, their being pivoted to the side pieces g^1 causes them to be revolved by the friction of the clothes so as to pass over said clothes without tearing them. To the upper cross-bar g^3 is attached one end of a cord, L, which passes over guide and friction-pulleys, M, pivoted near the middle and at the end of the cross-bar F, thence it passes down along the side of the machine, being kept in place by the keepers N, and terminates in a treadle or stirrup, O. The part of the cord L, to which the treadle O is attached, may, if desired, be replaced by a rigid bar, working up and down in the keepers N, as shown in fig. 2.

In using the machine, the crank I is turned downward, the button d^1 turned one quarter around, and the connecting-rod D detached from the crank h' . The rubber is then raised by bearing down with the foot upon the treadle O, swung forward and secured upon the edge of the end piece C, as shown in red in fig. 1. This

leaves the interior of the box free for putting in, turning, or taking out the clothes. When the clothes have been arranged, the rubber G is slightly raised and then lowered by operating the treadle O, the rod D is then connected to the crank H', and the machine is ready to be operated by turning the crank I.

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

The double spring connecting-rod D, rubber G, provided with roller K, grooved posts E, cord L, pulleys M, and treadle O, when constructed, arranged, and operating as herein set forth for the purpose specified.

MARK NEWLAND.

Witnesses:

JOHN NEWLAND,

JOHN MASON.