

L. H. Hubbard,
Washing Machine,
No 84,491, *Patented Dec. 1, 1868.*

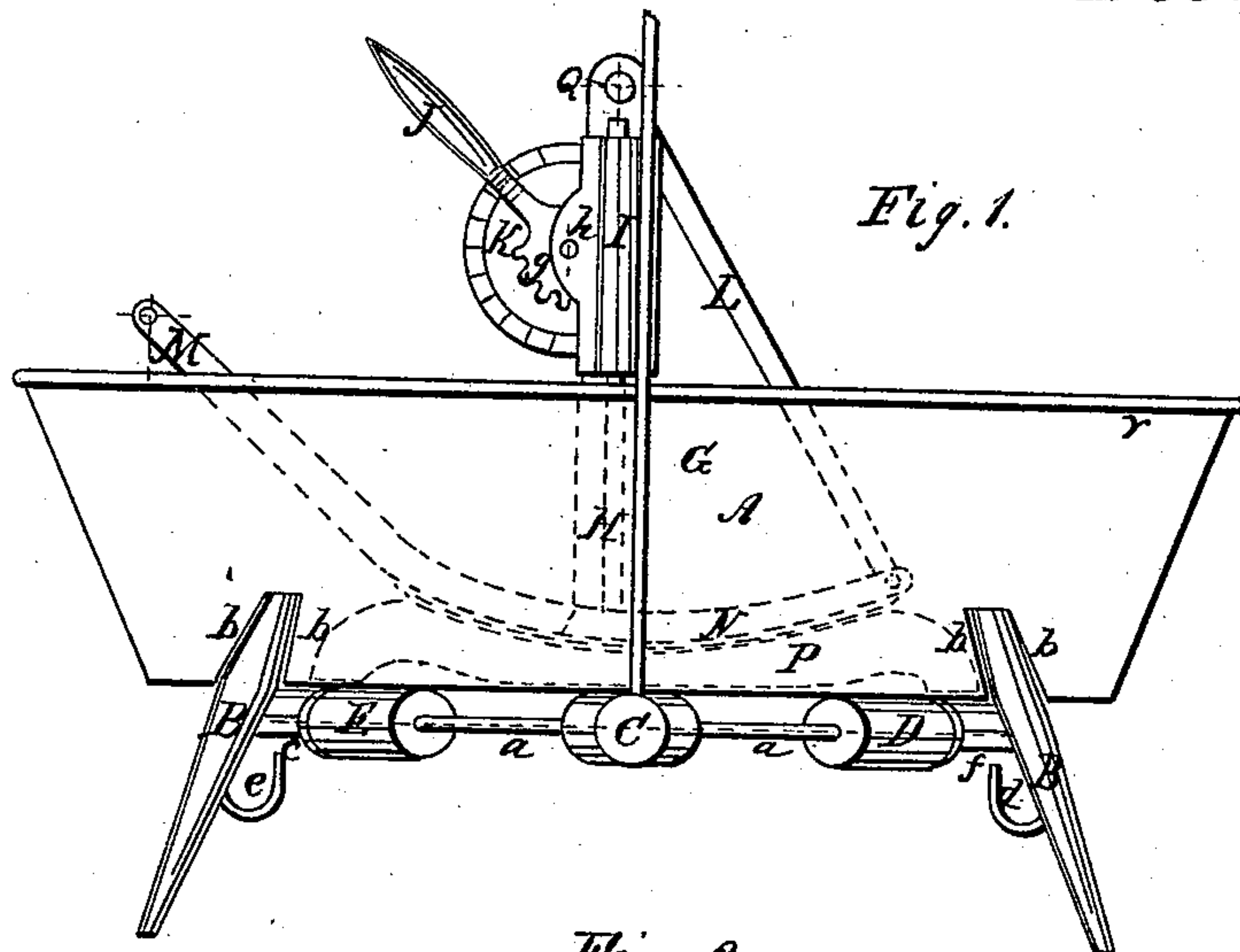


Fig. 1.

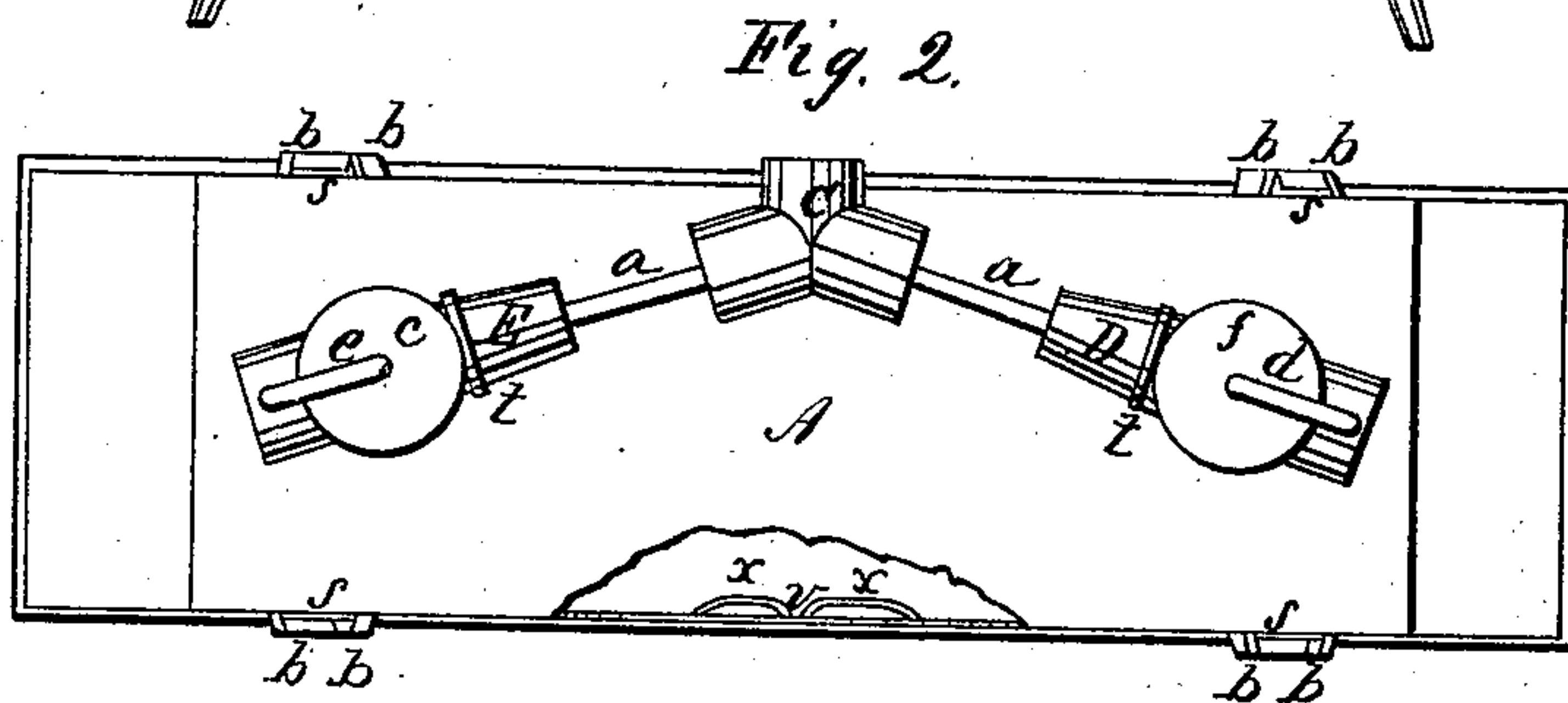


Fig. 2.

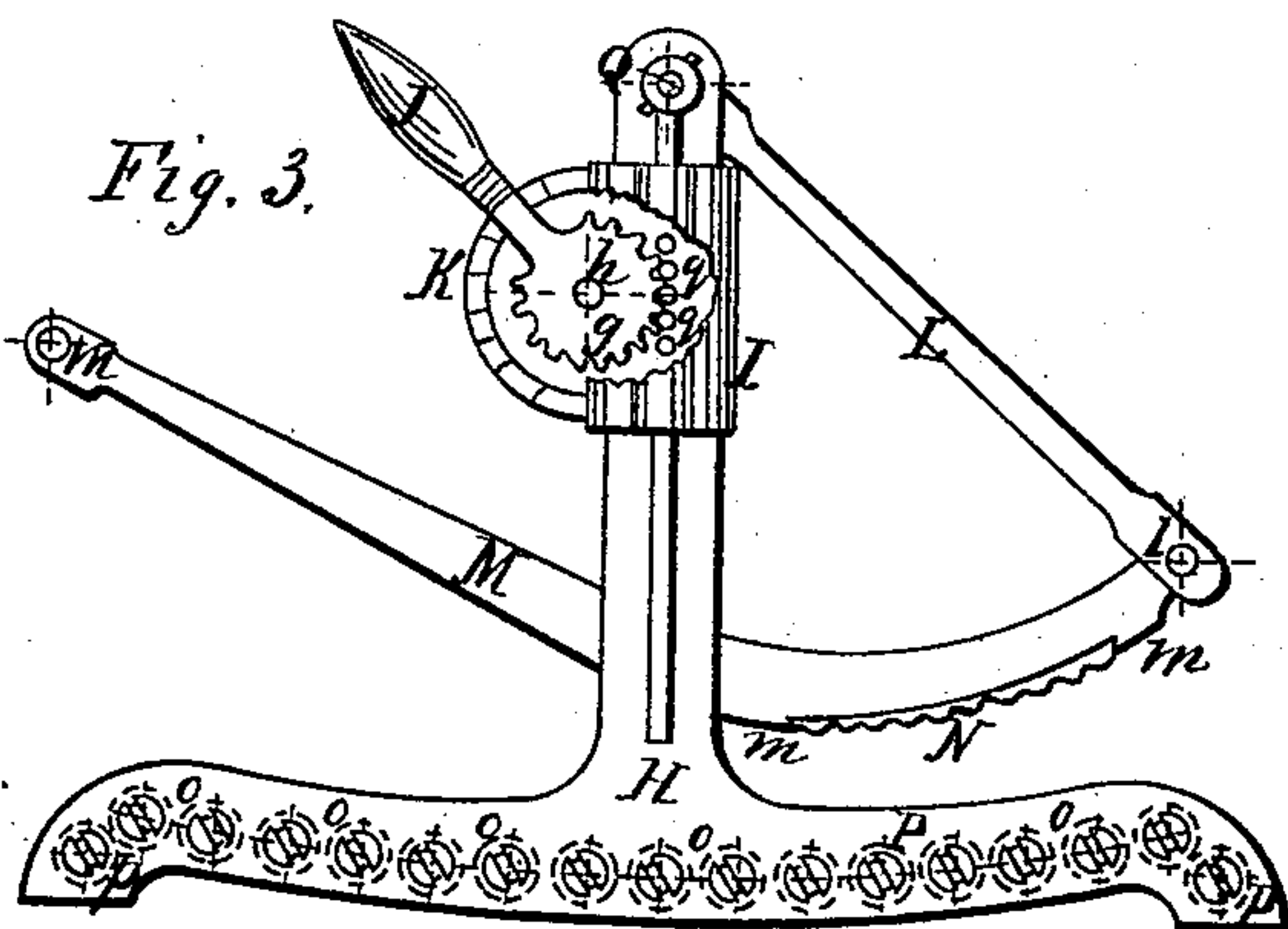


Fig. 3.

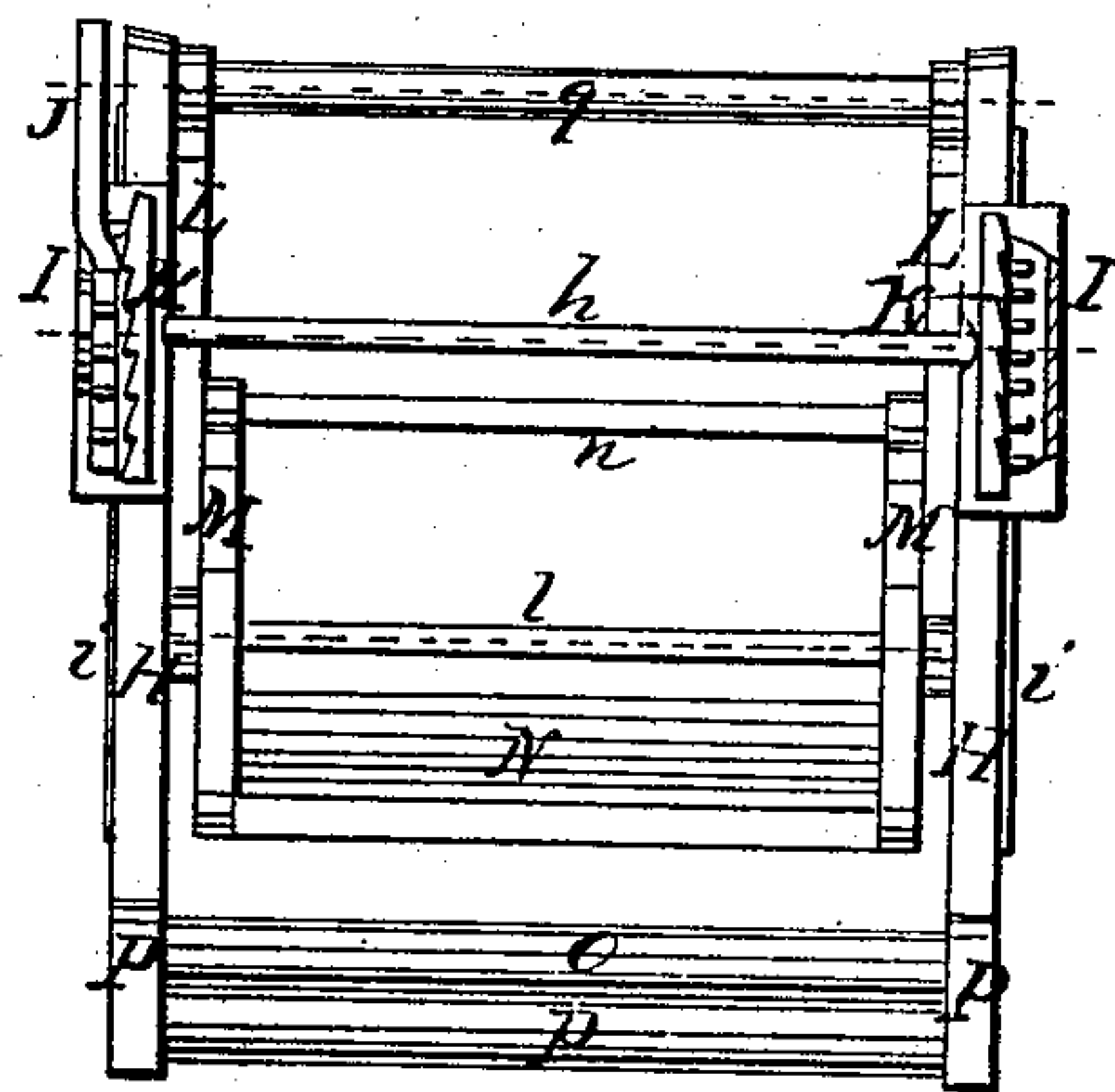


Fig. 4.

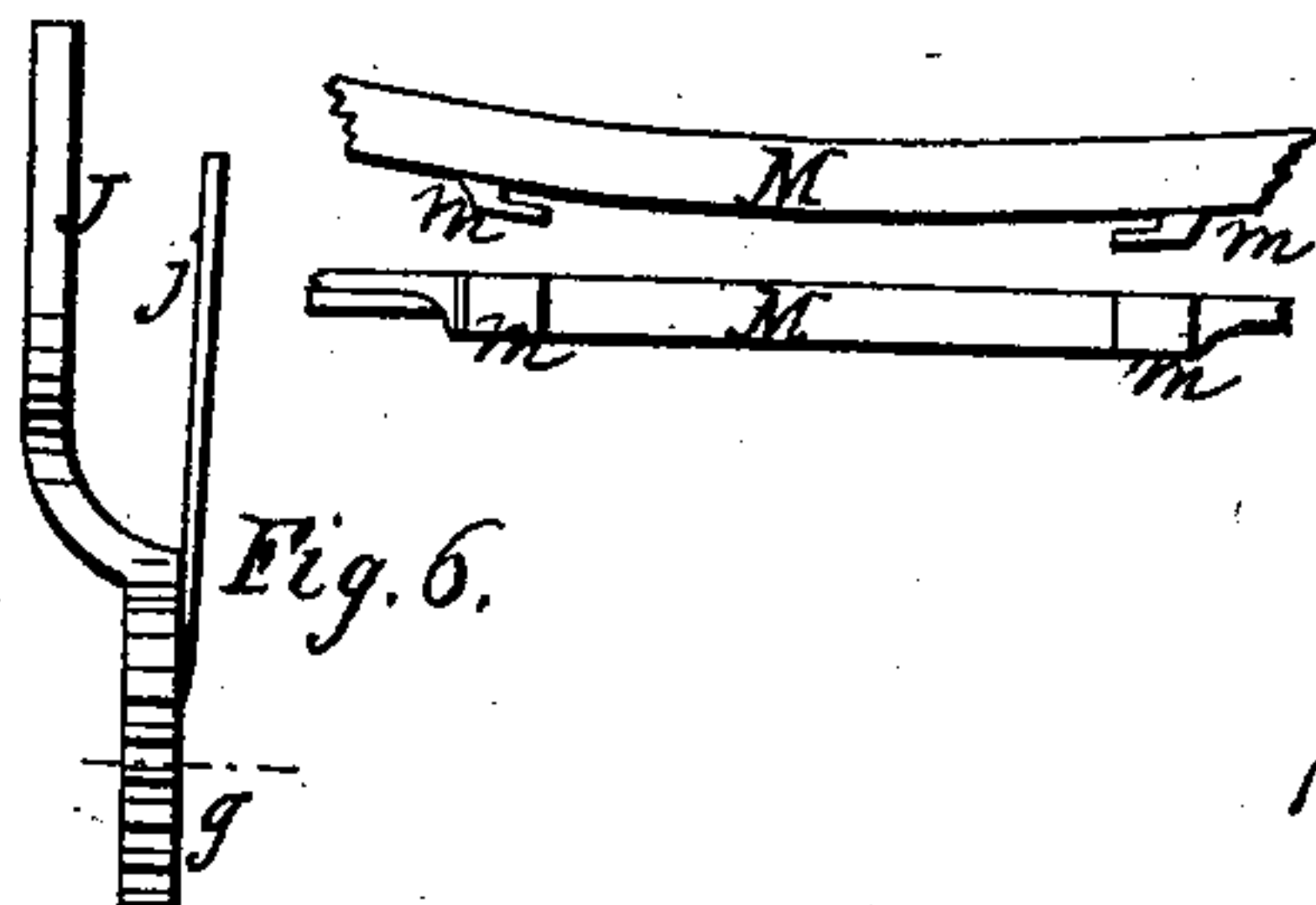


Fig. 5.

Fig. 6.

Witnesses;
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United States Patent Office.

L. H. HUBBARD, OF CANTON, OHIO.

Letters Patent No. 84,491, dated December 1, 1868.

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, L. H. HUBBARD, of Canton, in the county of Stark, and State of Ohio, have invented new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, of which drawings—

Figure 1 is an elevation of my improved machine.

Figure 2 is a plan of the bottom of the same, as seen from below.

Figure 3 is an elevation of the roller and rubber-frame and attachments.

Figure 4 is an end view of the same.

Figure 5 are side view and plan of rubber side-piece, showing manner of securing rubber-board.

Figure 6 is a side view of lifting-lever.

The nature of my invention consists in the construction of peculiar mechanism for raising the frame of the rollers and rubber, together with the rollers and rubbers themselves, in the wash-box, whereby I am enabled to raise and maintain said rollers and rubber in their proper position, with respect to the washing-suds in the wash-box, in an easy and effectual manner.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The wash-box A is made of sheet-copper, of the form shown, and has a wire or iron rim, *r*, around its upper edge, to prevent said edge from being broken or bent.

The legs B B, which support the machine, are secured to the box A by being inserted between the lips *b b*, which are secured to a base, *s*, which is soldered or riveted to the box A, as seen in fig. 2.

These lips *b b* slope towards each other at their outer edges, and also at their tops, so that the weight of the machine causes them to clasp the tops of the legs B B very firmly, and prevents any shaking of the machine.

The heating-apparatus is composed of the central double-armed pipe C, the connecting-pipes *a a*, end-pieces D and E, diffusing-plates *f* and *c*, and burners *d* and *e*, the whole being supported by loops *t t*, which pass around the end-pieces D and E, as shown, and are secured to the bottom of the box A.

The oil is fed into the pipe C by the upright pipe G, from a can or reservoir at the top of the pipe G, and passes out through the pipes *a a* and end-pieces D and E into the burners *d e*.

As soon as these burners are lighted, they heat the end-pieces D and E to an intense heat, which converts the oil in them to gas, which gas is forced down to the burners *d* and *e* by the weight of the oil in the pipe G, and thus supplies the burners with gas, which burns under the diffusing-plates *f* and *c*, which spread the heat or flame over a large surface of the bottom of the box A.

The inner frame-work of my machine consists of the

roller-frame pieces P P, with upright standards H H secured to them, the two sides of the frame being united by cross-pieces *p p* Q, as shown.

The arms L L are pivoted on the cross-piece Q, and are united at their lower ends by the bar *l*, which has the ends of the rubber-frame pieces M M pivoted at its ends.

These rubber-pieces are united at their other ends by the handle *n*, by which the rubber is operated, and have the rubber N secured to them by means of the lips *m m*, and one or two screws at each side, which screws pass through the frame-pieces M M, and screw into the rubber N.

The advantage resulting from this mode of securing the rubber N is that the lips *m m* allow of the swelling of the rubber-board N, when wet, and a shrinking when drying, after being wet, without any danger of splitting the board N, which is very liable to occur when said rubber board is secured to the pieces M M by several screws at each end.

The rollers O O are secured between the pieces P P by the screws *o o*, which pass through holes in the pieces P P, and screw into the ends of said rollers, and serve as the axes of rotation for the rollers O O.

A flange, *i*, is made on the outer faces of the uprights H H, and slides up and down in a groove, *v*, between two flanges or lips *x x*, secured on the inside of the box A, thus serving to maintain the frame-work P H H P in the proper position in the box A, and, at the same time, to allow said frame to be raised or lowered in the box.

The sliding boxes I I, of the form shown, are so arranged as to slide up and down on the uprights H H, and rest with their lower ends on the rim of the box A.

A ratchet-dial, K, of the form shown, is secured to each box I, and a handle, J, with segmented gear-head, *g*, is pivoted in said box I, on the rod *h*, which unites the two boxes I I.

A spring, *j*, (see fig. 6,) is secured on the handle J, and works into the ratchet-dial K.

And a row of cog-pins, *q q*, is arranged in the plane of the flange *i*, in the uprights H H, so that the gear-head *g* of the handle J may mesh into them.

It is readily seen that, by turning down the handles J J, the uprights H H will be raised up in the boxes I I, through the action of the head *g* on the pins *q q*, and as these boxes rest on the rim of the box A, that the whole inner frame-work of rollers and rubber will be raised up in the box A, and can be held at any desired point, by allowing the springs *j j* on the handles J J, to engage with the teeth on the ratchet-dial K, by which the rollers O O may be kept at the surface of the water at all times during the washing of the clothes.

When it is desired to clean the box A, or to use it for any other purpose than washing, the whole frame H P may be raised entirely out of and be removed from the box A.

The whole of the inner frame-work of my machine

may be made of wood, if desired, but I consider galvanized iron preferable for all the parts, excepting the cross-pieces, rubber-board, and rollers.

Having thus fully described my invention,

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

The peculiar arrangement and combination of the sliding boxes I I, with ratchet-dials K K secured thereto, the lifting-levers J J, with spring-pawls *j j* and geared heads *g g* thereon, and the frame-standards H

H, with cog-pins *q q*, the several parts being constructed, arranged, and operating substantially in the manner and for the purpose herein specified.

As evidence that I claim the foregoing, I have hereunto set my hand, in presence of two witnesses, this 23d day of July, A. D. 1868.

L. H. HUBBARD.

Witnesses:

JOB ABBOTT,

C. Q. BEEBOUT.