C. A. DODGE.

Washing-Machine.

No. 205,063. Patented June 18, 1878.

Fig. 1.

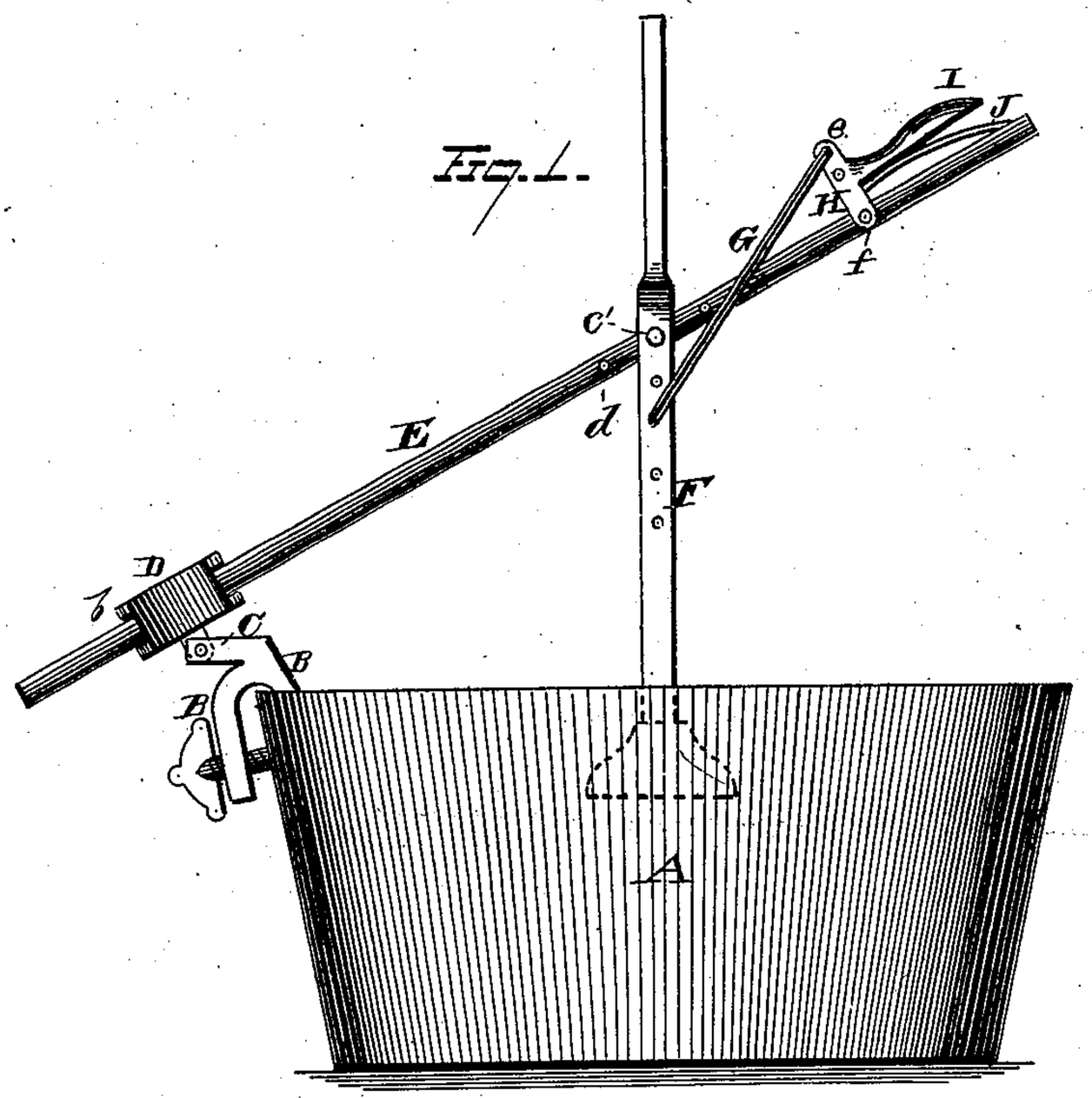


Fig. 3.

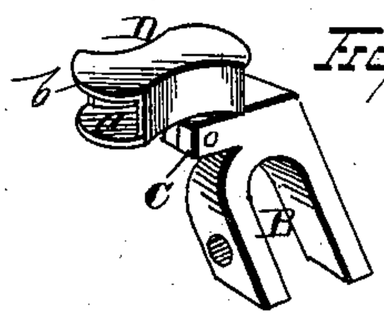


Fig. 2.

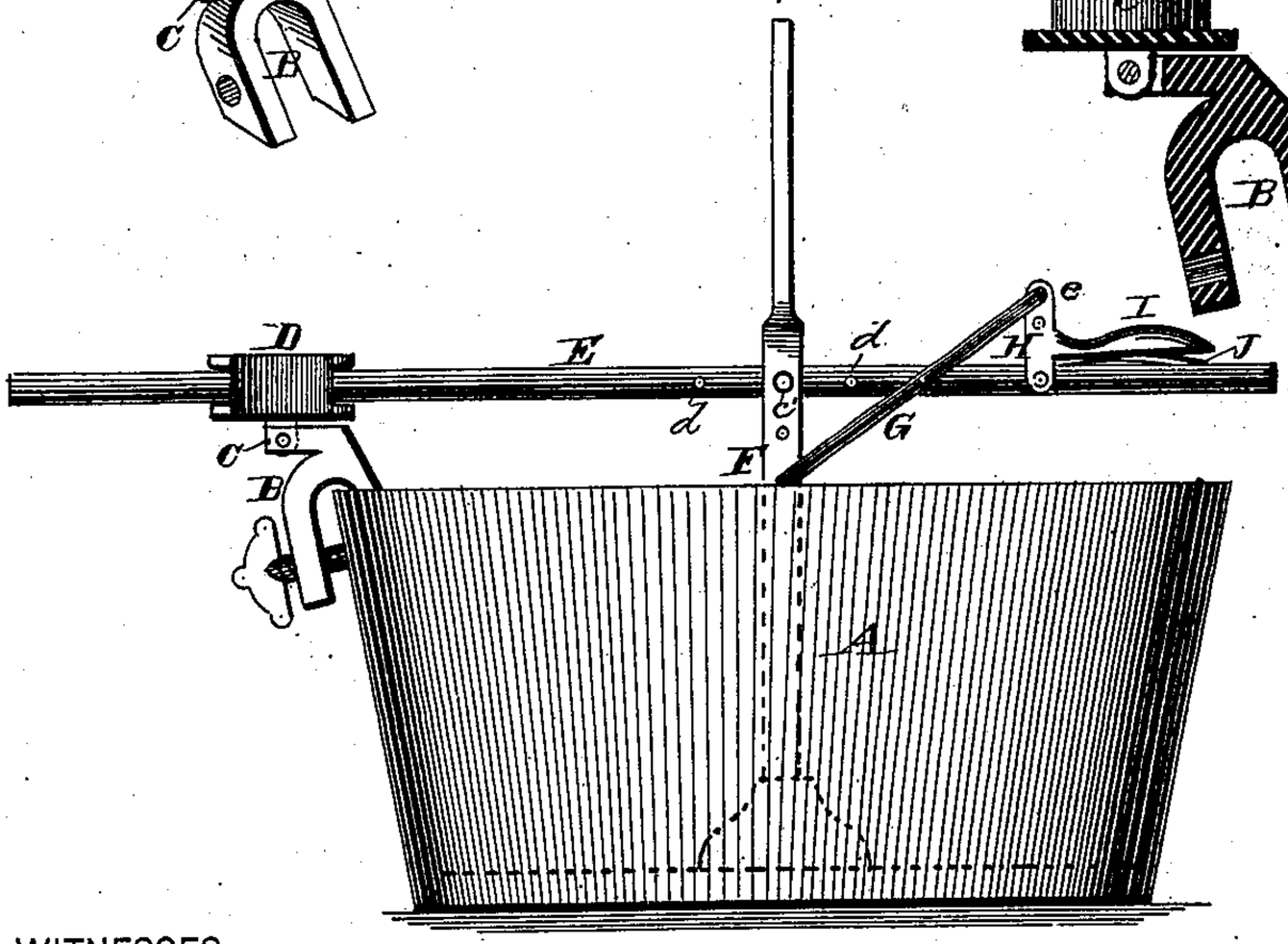
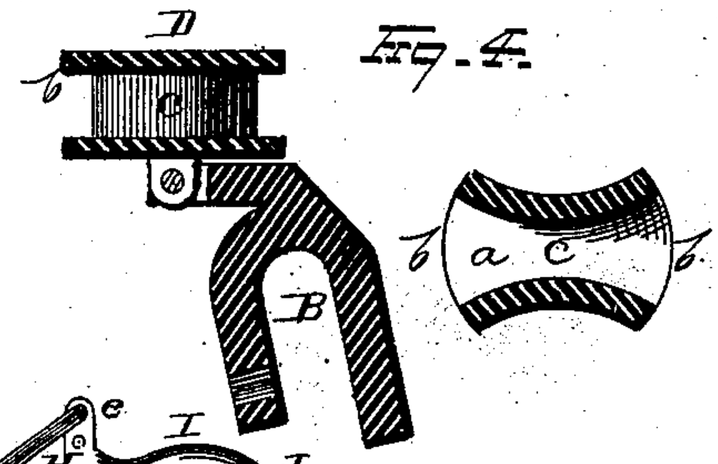


Fig. 4.



WITNESSES

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CYRUS A. DODGE, OF MIDDLEBURY, VERMONT.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **205,063,** dated June 18, 1878; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, CYRUS A. DODGE, of Middlebury, in the county of Addison and State of Vermont, have invented certain new and useful Improvements in Pounder Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in pounder washing-machines, the object being to provide a machine of such construction that the position of the pounder-shaft may be governed and the actuating-lever operated by the hand of the operator; also, to provide a pivoted fulcrum for the actuating-lever, which shall afford an extended bearing for the actuating-lever in any position in which it may be placed.

My invention consists, first, in the combination, in a pounder washing-machine, with an actuating-lever having a pounder-shaft pivoted thereto, of a bell-crank lever pivoted to the handle end of the actuating-lever, and a link or equalizing-bar attached to the bell-crank lever and to the pounder-shaft, whereby the pounder-shaft may be raised in a vertical line and lowered in a vertical line by the operator by pressing on the bell-crank lever, when the pounder is given a downstroke.

My invention further consists in the combination, with a sliding lever of a pounder washing-machine, of a pivoted fulcrum, constructed with outwardly-flaring openings leading from the center of the fulcrum, whereby the actuating-lever is afforded an extended bearing in the fulcrum, and adapted to be moved either longitudinally, laterally, or vertically in a rocking non-rotary fulcrum.

My invention further consists in the several details of construction and combinations of parts, as will hereinafter more fully appear from the specification, and be pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved pounder washing-machine with the pounder in its raised position. Fig. 2 is a similar view, showing the pounder resting on the bottom of the tub. Fig. 3 is an enlarged view of the fulcrum; and Fig. 4 shows a longitudinal section, and also a detail horizontal section, of the same.

A represents a tub of any desired size. B is a clamp, removably secured to the tub by a thumb-screw or other equivalent means. The upper portion of the clamp B is provided with a horizontal extension, C, to the outer end of which is hinged or pivoted a fulcrum-block, D, whereby the latter is adapted to have a rocking movement on the part C.

Fulcrum-block D is provided with an opening, *a*, extending through the same. The upper and lower walls of said opening are parallel with each other, and allow the actuating-lever to have a free longitudinal movement therein. The side walls of opening *a* are outwardly-flaring from the central portion *c* of the fulcrum-block to its ends *b*, to allow the actuating-lever to be freely moved in a lateral direction and carry the pounder to the sides of the tub.

From the foregoing it will be seen that, although the fulcrum has no rotary movement, but simply rocks to and fro on the clamp-extension C, it serves to afford an extended bearing for the actuating-lever, regardless of the position of the latter, and enables said lever to be freely moved either in a longitudinal, lateral, or vertical direction.

F is a pounder-shaft, having a pounder of any form or construction secured to its lower end. Pounder-shaft F is formed with a central opening, of any desired length, for the reception of the actuating-lever E, and is adjustably secured to the latter by means of a pin, *c'*, extending through the pounder-shaft and actuating-lever. Lever E is provided with any desired number of holes *d*, to allow the pounder-shaft to be adjusted longitudinally thereon. G is a link or equalizing-bar, one end of which is attached to the pounder-shaft below its pivotal point with the lever E, while the other end is attached to the upright arm *e* of bell-crank lever H, the latter being provided with lugs or ears *f*, by means of which it is pivoted to the handle end of the actuating-lever. The handle I of the bell-crank lever is upheld by a flat or spiral spring, J.

Instead of attaching the bell-crank lever to the upper side of the lever and the link or equalizing-bar to the pounder-shaft below the actuating-lever, the order may be reversed, and the bell-crank lever attached to the under side of the lever and the equalizing-bar to the pounder-shaft above the actuating-lever.

When the actuating-lever is raised the operator's grasp is released from the handle I of the bell-crank lever, thus allowing the spring to raise the handle I, which operates, through the equalizing-bar, to move the lower end of the pounder-shaft toward the fulcrum, and causes the pounder-shaft to be raised nearly or quite in a vertical line. When the actuating-lever is forced through its downstroke, the handle of the bell-crank lever is depressed against the top of the lever, thus causing the pounder to strike squarely on the clothes in the tub, or, in other words, bringing the pounder-shaft at right angles with the actuating-lever when the pounder is in contact with the clothes in the tub. But very little strength is required to actuate the bell-crank lever, and the desired pressure is necessitated at such intervals in the operation of the machine as not to make the work burdensome on the operator.

I am aware that the patent of L. Caldwell, No. 131,659, dated September 24, 1872, reissued March 26, 1878, No. 8,134, illustrates and describes a stationary fulcrum for a pounder washing-machine, formed with its opposite faces or surfaces countersunk or outwardly flared, both laterally and vertically, in order that the actuating-lever may be freely moved in a lateral and vertical direction, and hence I make no broad claim to such construction.

My improved fulcrum-block is hinged to admit of a vertical oscillation, to allow the actuating-lever to be moved vertically, while the opposite ends of the fulcrum-block are outwardly flared on its sides to allow the lever to be moved laterally. This construction of fulcrum-block admits of an elongated bearing for the actuating-lever, and thus obviates the undue wear which is incident to the comparatively narrow and restricted bearing-surface of a fixed fulcrum.

It is evident that my invention may be embodied in various forms of construction and arrangements of parts, and hence I do not limit myself to the exact construction shown and described; but,

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

1. In a pounder washing-machine, the combination, with an actuating-lever having a pounder-shaft attached thereto, of a rod attached at one end to the pounder-shaft and at the other to a hand-lever pivoted to the handle end of the actuating-lever, substantially as set forth.

2. In a pounder washing-machine, the combination, with an actuating-lever having a pounder-shaft pivoted thereto in a vertically-adjustable manner, of a rod attached at one end to the pounder-shaft and at the other to a hand-lever pivoted to the handle end of the actuating-lever, substantially as set forth.

3. In a pounder washing-machine, the combination, with an actuating-lever having a pounder-shaft pivoted thereto, of a bell-crank hand-lever connected with the pounder-shaft by a rod, and a spring interposed between the hand-lever and the handle portion of the actuating-lever, substantially as set forth.

4. In a pounder washing-machine, the combination, with an actuating-lever having a pounder-shaft pivoted thereto, of a bell-crank-handle lever constructed with lugs adapted to overlap the sides of the actuating-lever, and attached thereto by a pin or pivot, and a rod, one end of which is attached to the upright arm of the bell-crank lever and the other end to the pounder-shaft, substantially as set forth.

5. In a pounder washing-machine, the combination, with an actuating-lever, of a rocking fulcrum having laterally and outwardly-flaring openings leading from the center of the fulcrum, substantially as set forth.

6. In a pounder washing-machine, the combination, with an actuating-lever, of a rocking fulcrum pivoted to a portion of the clamp, said fulcrum constructed with a central opening of practically the size of the actuating-lever in cross-section, while the opposite portions of said fulcrum are outwardly flaring to allow the lever to be moved laterally to carry the pounder to any part of the tub, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of May, 1878.

CYRUS A. DODGE.

Witnesses:

HENRY A. SEYMOUR,

FRANK O. MCCLEARY.