C. A. DODGE,

WASHING-MACHINES.

No. 195,106. Patented Sept. 11, 1877.

Fig. 1.

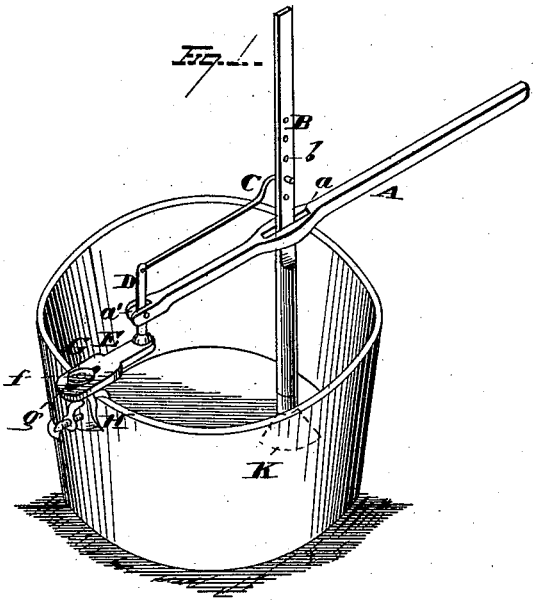

Fig. 2.

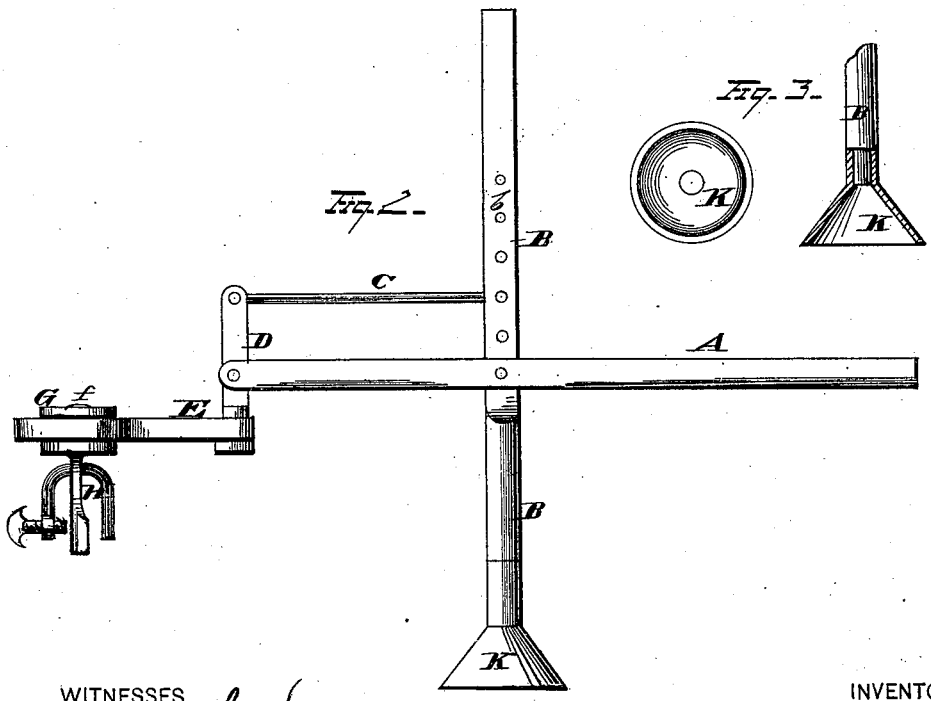

Fig. 3.

WITNESSES

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CYRUS A. DODGE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **195,106**, dated September 11, 1877; application filed September 6, 1877.

To all whom it may concern:

Be it known that I, CYRUS A. DODGE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in 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 improvements in washing-machines, more especially in that class termed "pounders;" and consists of an attachment readily applied to any tub, and adapted to be worked so that the pounder may always come in contact with the clothes in a straight and upright position.

As the lever-handle reciprocates the upright shaft, which latter actuates the pounder, the shaft is held in constant vertical position by a guide-rod, connecting it to an upright of a horizontal swinging arm. This arm has rotary movement about a pivot, which latter passes through an elongated slot in its body, securing it by clamp mechanism to the tub or vessel in which the clothes are to be washed.

The purpose is to allow the pounder to act upon the clothes in all parts of the tub, and with this in view the arm which carries the fulcrum-support of the lever-handle is constructed to rotate about its own pivotal axis, thus causing the arm to swing in a horizontal plane over the tub, and also either to or from it. At the same time the handle is loosely connected to an upright secured to the free extremity of the swinging arm. This pivotal connection to its fulcrum allows the handle to have an angular movement in a vertical line, while the fulcrum upright itself has an independent rotary movement upon a pivotal axis, securing it to the swinging arm. Hence the pounder-bowl, together with its actuating-shaft, is operated in a constant line of vertical reciprocation by a handle having a universal-joint movement upon a single upright secured to the free end of an arm, which latter is adapted to swing in a horizontal line, and in any direction, either above the tub or in a vertical plane outside of the tub.

Referring to the drawings, Figure 1 represents my attachment applied to a tub. Fig. 2 shows it detached therefrom. Fig. 3 shows parts in detail.

The lever-handle A is connected by a suitable pin in the graded series of holes *b* of the upright shaft B, which latter passes through slot *a* of the body of the lever. The object of these several holes *b* is to furnish engagement both for said shaft-connecting pin and also for the hooked extremity of the guide-rod C, which maintains the upright in a vertical line.

The graded series of holes in the upright shaft allows the lever-handle to actuate it in a degree of vertical movement to correspond with the depth of different tubs, and, if desired, even to vary with the quantity of clothes in any one tub.

The hooked extremity of the guide-rod and the lever-connecting pin are both adapted to be readily removed from one set of holes in upright shaft and engaged with an upper or lower set. This guide-rod, placed above the handle, is thus held constantly at an equal parallel distance therefrom, and its opposite extremity engages loosely in the upper body of the upright D. The lower extremity of the upright is pivoted vertically in the free end of the swinging arm E, and has horizontal rotary movement thereon. Near its arm-connection this upright fulcrums the lever-handle by a horizontal pivot, and the open slot *a'* in this end of the handle allows it to have angular movement in a vertical line, as well as in horizontal line, the latter by reason of its pivotal fulcrum.

The swinging arm E also has an independent rotary movement about its pivotal support *f*, which latter is a pin adapted to have adjustment in the elongated slot *g* in the line of length of its supported arm. A washer, G, may be used to secure this pivotal pin within its working slot.

The clamping mechanism may be of any desired character, and I simply show that illustrated in my drawing as one of the many different styles which may be used to detachably engage the improvement to a tub; and I desire to be understood as not laying any claim to the special form of clamp H shown in the drawing in this application, as it constitutes the subject-matter of an application for Let-

ters Patent filed by me at date earlier than the present application.

The pounder-bowl K is provided with a thimble, in which fits the lower extremity of its actuating-shaft, and the latter may be secured therein in any desired manner.

The construction calls for very few parts, and of such a character as not to be easily injured in their working operation. Many of the minor points may be changed from the specific form herein shown, and I do not limit myself to such narrow detail.

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

1. The combination, with the pounder-shaft, handle, and guide-rod, of a single supporting upright, the latter adapted to have rotary movement in a horizontal line, substantially as described.

2. The combination, with the actuating-handle, of the supporting-arm adapted to have a rotary movement in a horizontal line, substantially as described.

3. The combination, with the handle and horizontally-swinging arm, of the connecting upright, the latter adapted to have an independent rotary movement in a horizontal line, substantially as described.

4. In a pounder washing-machine, the combination, with the horizontally-swinging arm, of the supporting-pivot working in a slot formed in the end of the swinging arm, substantially as described.

5. The combination, with the handle, guide-rod, and pivotal upright, of the horizontally-swinging arm, a suitable clamp, and connecting adjustable mechanism, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of September, 1877.

CYRUS A. DODGE.

Witnesses:
FRANK GALT,
A. W. BRIGHT.