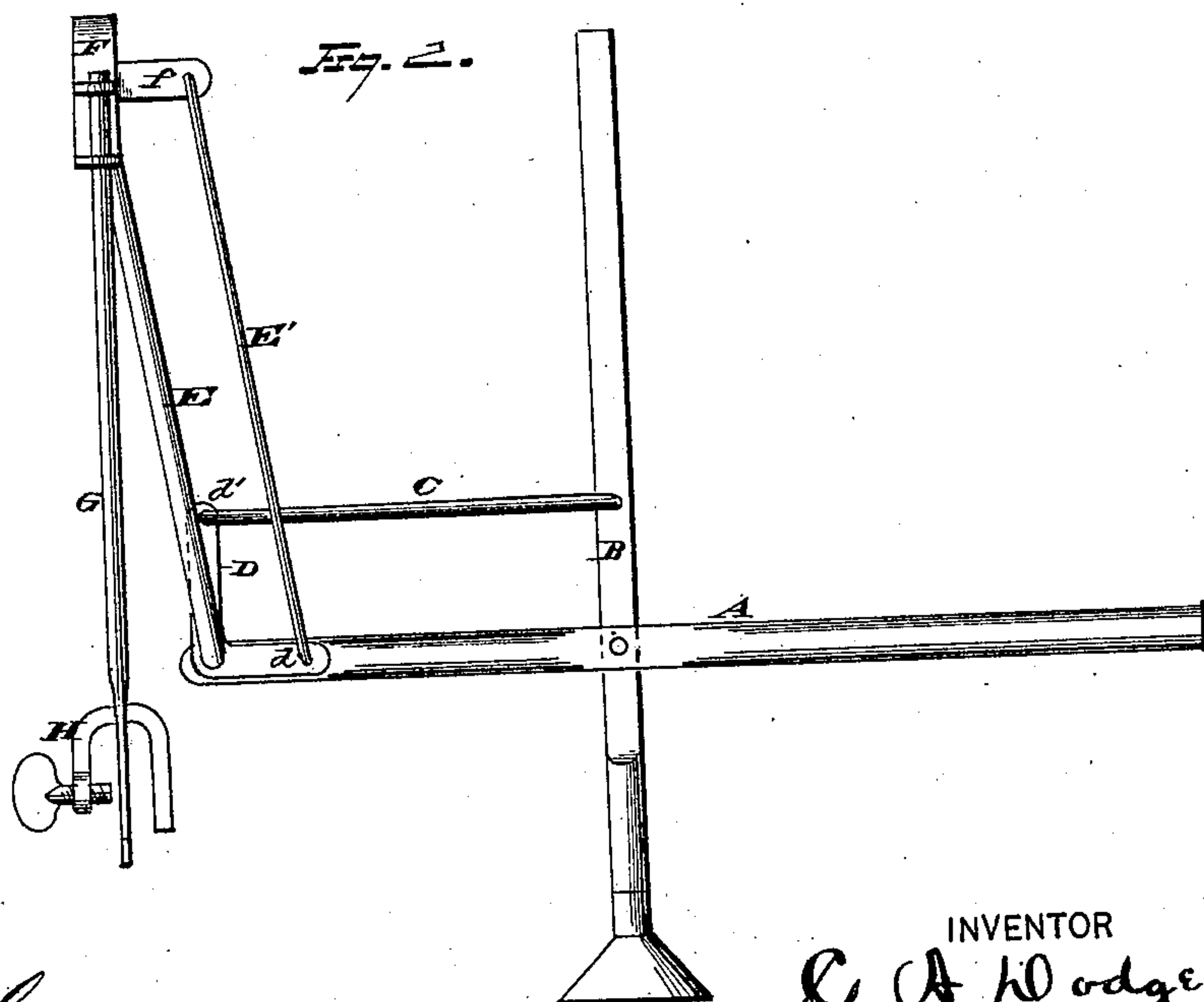
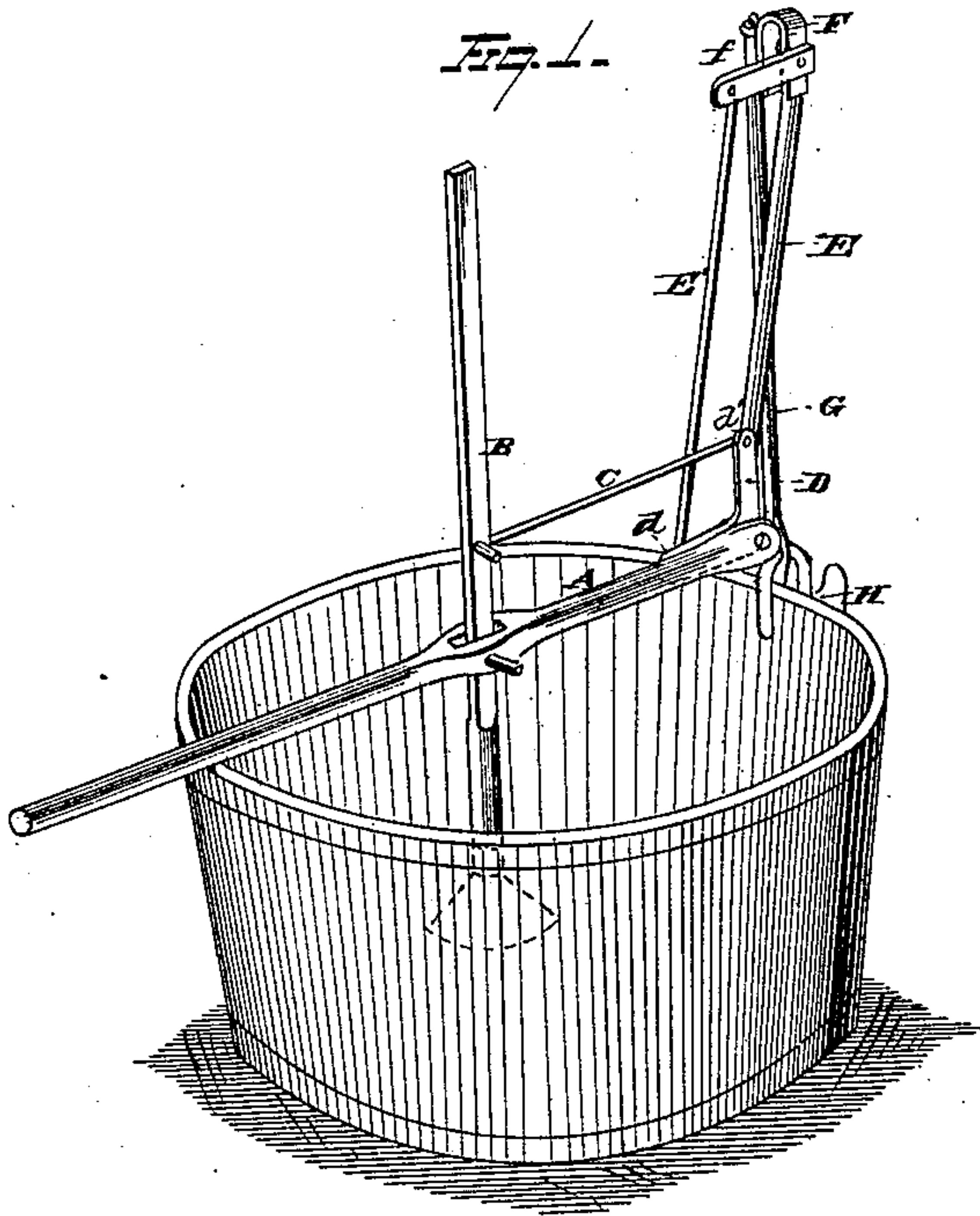


C. A. DODGE.
WASHING-MACHINES.

No. 195,105.

Patented Sept. 11, 1877.



WITNESSES

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UNITED STATES PATENT OFFICE.

CYRUS A. DODGE, OF MUNCIE, INDIANA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **195,105**, dated September 11, 1877; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, CYRUS A. DODGE, of Muncie, in the county of Delaware and State of Indiana, 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; and consists in providing the lever-handle, which operates the vertical pounder-shaft, with two parallel vertical rods, connected at their upper extremities with a swivel supported on a suitable standard, while their opposite or lower ends engage with a bell-crank, which latter is pivoted to the lever-handle.

My object is to cause the pounder to be always maintained in a vertical position, notwithstanding the inclination, or excessive degree of such inclination, of the lever-handle, and without reference to any particular portion of the tub in which the pounder is operated.

Referring to the drawings, Figure 1 is a view, in perspective, of a tub provided with my invention. Fig. 2 is a view, in elevation, of the attachment detached from the tub, and seen in opposite sides from that of Fig. 1.

The lever-handle A, together with the vertical shaft B operating the pounder proper, may be made in any suitable manner, and their particular construction, as well as that of the horizontal guide-rod C, is immaterial to my invention.

The bell-crank D is pivoted to the lever-handle by the bent extremity of the outer rod E of the two parallel vertical rods E E'. This rod E is also loosely secured at its upper extremity to the swivel F, which latter rotates upon the standard G. The inner vertical rod E' also swings in the same vertical plane with that of rod E, but is pendent from the lateral arm extension *f* of the swivel. Its lower end is loosely connected with the free horizontal extremity *d* of the bell-crank, and the two rods are thus made to swing simultaneously, and always to maintain their constant paral-

lel relation. The upper extremity *d'* of the bell-crank loosely engages the guide-rod C, which latter suitably connects with the pounder-shaft B, and aids in the maintenance of the upright position of this pounder-shaft. As the bell-crank has a pivotal connection with the lever-handle, it can readily be turned at any angle of inclination to a vertical line, and moves freely, as controlled by the parallel rods engaging it to correspond with the movement of the lever-handle relative to the standard G as a fixed point; and since the opposite extremities of the parallel rods are secured to the swivel, which rotates upon the upper portion of this standard, it follows that while these rods E E' support the lever-handle and the pounder-shaft by a universal-joint connection, yet that the pounder is maintained constantly in an upright position, without reference to the degree of inclination of the lever-handle, and also without reference to the location of the pounder in the tub in which it is working—that is, the pounder may be nearer to, or farther from, the standard G, and operating on any particular point of place in the tub, and, notwithstanding such location, still retain a vertical working position under any degree of inclination of the lever-handle actuating the same. The standard is secured to the tub preferably by the clamp mechanism H, shown in the drawings; but any other clamp may be used, and the special form shown is not material to this invention.

Inasmuch, however, as the same clamp is shown in an earlier application of mine for Letters Patent, now on file in the Patent Office, I do hereby disclaim it in and as far as regards this application.

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

1. The combination, with a standard, the lower end of which is adapted to be secured to a tub, of two parallel rods, their upper ends swiveled to the standard, while the lower ends are pivoted to the operating-lever, to which is pivoted the pounder-handle, substantially as described.

2. In a pounder washing-machine, the combination, with the parallel rods swinging at an angular inclination to the vertical, of the

swivel connecting the same with a supporting-standard, substantially as described.

3. In a pounder washing-machine, the combination, with the standard and swivel, of the parallel swinging rods, the bell-crank, and the lever-handle, substantially as described.

4. In a pounder washing-machine, the combination, with the two parallel swinging rods, of the bell-crank, pivoted to the lever-handle, substantially as described.

5. The combination, with the bell-crank,

pivoted to the lever-handle, of the horizontal guide-rod, the pounder-shaft, and the parallel vertically-swinging rods, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of July, 1877.

CYRUS A. DODGE.

Witnesses:

S. M. STOW,

C. A. CHAPMAN.