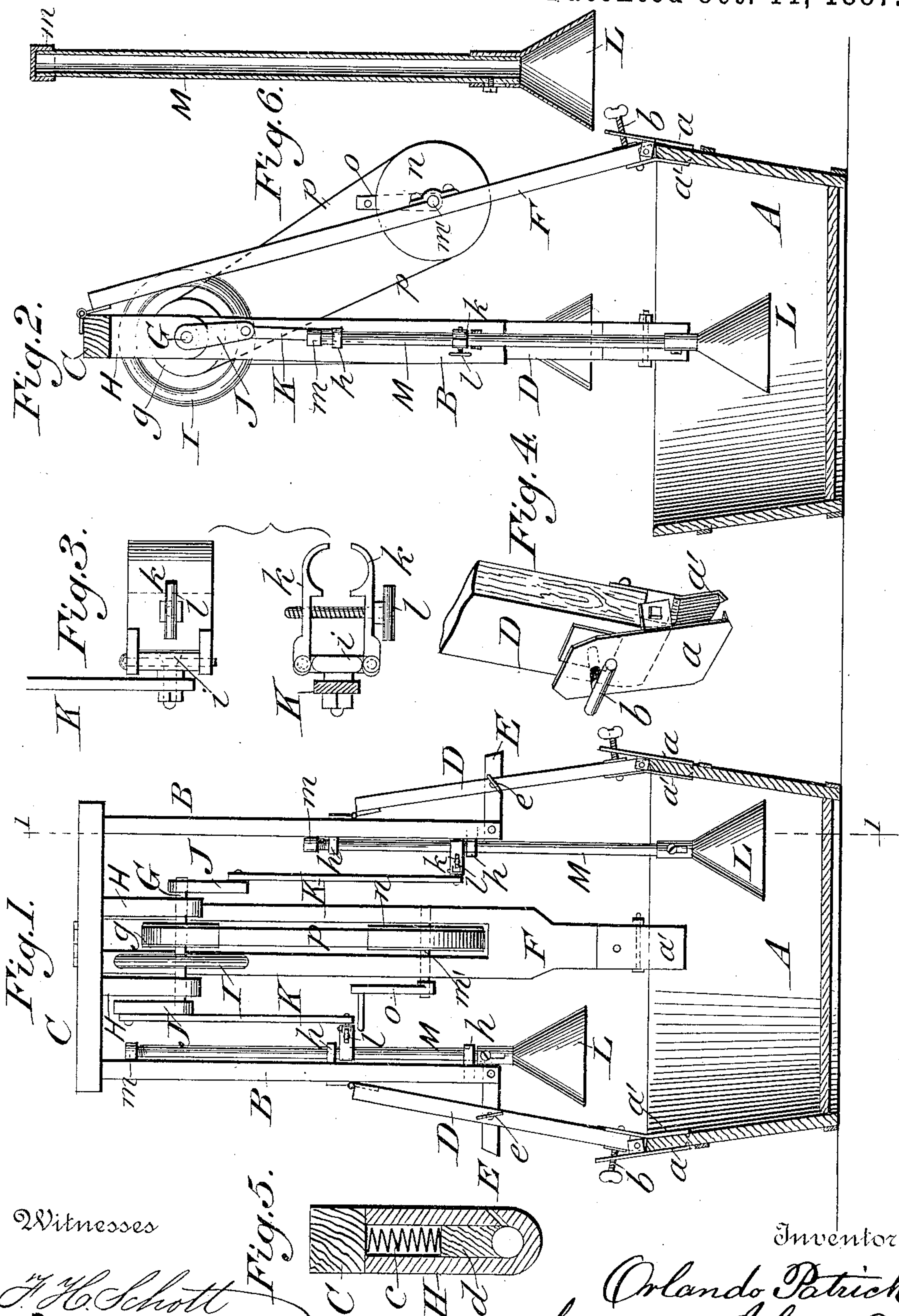


(No Model.)

O. PATRICK.
WASHING MACHINE.

No. 371,351.

Patented Oct. 11, 1887.



Witnesses

H. H. Schott
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UNITED STATES PATENT OFFICE.

ORLANDO PATRICK, OF SHELBYVILLE, INDIANA, ASSIGNOR OF ONE-HALF
TO CALVIN ROSS, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 371,351, dated October 11, 1887.

Application filed March 10, 1887. Serial No. 230,328. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO PATRICK, a citizen of the United States, residing at Shelbyville, in the county of Shelby 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 appertains to make and use the same.

This invention relates to an improvement in washing-machines; and it consists in the construction, arrangement, and combination of parts, substantially as will be hereinafter described, and then pointed out in the claims.

In the annexed drawings, illustrating my invention, Figure 1 is a front elevation of my improved washing-machine arranged in operative position upon a tub, the latter being shown in section. Fig. 2 is a side elevation of the same, the section of the tub being at right angles to that of Fig. 1. Fig. 3 represents enlarged and side plan detail views of one of the clamps for fastening the pitmen to the pounder handles or rods. Fig. 4 is an enlarged detail view of one of the clamps for securing the legs of the frame to the tub. Fig. 5 is a vertical section of one of the bearings in which the crank-shaft is journaled. Fig. 6 is a vertical section of one of the hollow pounders and its hollow handle.

Similar letters of reference denote corresponding parts throughout the several figures.

A represents an ordinary tub.

The frame of my improved washing-machine consists, essentially, of a tripod, which supports the several parts of the invention and is mounted upon the rim of the tub, and whose legs are adjustable, so that the frame may be suited for connection with any size of tub. This frame comprises two uprights, B B, which are secured together by a horizontal beam, C. To the uprights B B, at points preferably about midway of their height, are hinged the legs D D, and to the bottom ends of said uprights are connected the horizontal arms E E, which pass through slots in the legs D D, said legs being held in the desired position on the arms E E by means of the set-screws *e e*. A third leg, F, consisting of a longitudinally-slotted bar, is

hinged to the beam C at about midway of its length, and is normally situated in an inclined position, as shown in Fig. 2. The lower extremities of the legs D D and F are each provided with a clamp constructed substantially in the manner shown in Fig. 4, and consisting of two parallel jaws, one of which, as *a'*, is secured rigidly to the leg, while the other, as *a*, is pivotally connected with the leg by pins thereon, which pass through lugs projecting centrally from the jaw on opposite sides of the leg, and is adjusted toward or away from the jaw *a'* by means of a thumb-screw, *b*, passing through the jaw *a*, with its inner end abutting against the leg. The jaws *a* and *a'* are so formed as to conveniently grasp the rim of the tub between them.

I have thus set forth the structure of the frame and the mode of securely fastening the same upon the tub. It now remains to describe the construction of the devices whereby the washing is performed.

A horizontal shaft, G, is journaled below the beam C in bearings that are secured to and supported by said beam. The preferable construction of the bearings is illustrated in Fig. 5, where they are shown as consisting of a slotted box, H, containing a movable block, *h*, which is acted upon by a spring, *c*, so as to be held against the shaft. The shaft is thus permitted to have a certain amount of play vertically whenever the pounders are so impeded as to be unable to make their full reciprocation, and the liability of a breakage of the parts is avoided. The shaft G carries a balance-wheel, I, and a pulley, *g*, and its extremities are provided with the oppositely-extending crank-arms J J, that are pivotally connected with pitmen K K, whereby motion is communicated to the pounders. These pounders are arranged alongside of the uprights B B, and reciprocate vertically in this location. They consist of inverted funnel-shaped pieces, L, having a tubular neck into which is fitted and suitably held—as by a set-screw—a hollow rod, M, closed at its upper extremity by a cap, *m*. The inner faces of the uprights B B are each provided with two or more guides, *h h*, which inclose the rods M, and thus direct the movement of the pounders.

The pitmen K K are connected with the rods M by peculiarly-constructed clamps, (shown in detail in Fig. 3,) and adapted to grasp the rods M at any convenient point. They are thus capable of adjustment upon the rods M whenever desired. The clamps are constructed as follows: A plate, *i*, is arranged parallel to the side of the pitman at its lower end and swiveled in said pitman, the swivel being washered on either side of the pitman. To parallel edges of the plate *i* are pivoted the jaws *k k*, whose inner faces are curved semi-circularly, so that the cylindrical rods M may be held between them. The jaws *k k* are caused to grip or relax their hold upon the rod by means of a thumb-screw, *l*.

In order to revolve the shaft G and actuate the pounders, I find it most convenient to journal a shaft, *m*, in the slotted leg F, and provide this shaft with a pulley, *n*, situated within the slot, and a crank-handle, *o*. The pulley *n* connects with the pulley *g* by a belt, *p*, and thus, when the operator of the machines rotates the crank-handle, the shaft G will be revolved, the pounders reciprocated through the medium of the pitman-connection with shaft G, and the water forced among the clothes, as well as the air which is contained in the inverted funnels and the hollow rods.

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

1. In a washing-machine, the combination of an adjustable tripod-frame, two reciprocating pounders, a horizontal crank-shaft journaled in the frame and actuated by suitable means, and pitman-connections between said shaft and the pounders, substantially as described.

2. In a washing-machine, the combination of the frame consisting of two uprights connected by a cross beam, the two legs hinged to said uprights and the third leg hinged to

the cross-beam, the horizontal crank-shaft journaled in bearings carried by the cross-beam, the vertically-reciprocating pounders operating in guides upon the uprights, and suitable connections between the pounders and the crank-shaft, together with mechanism for operating the latter, substantially as described.

3. The combination of the frame, the vertically-reciprocating pounders arranged in guides on the frame, the horizontal crank-shaft carrying balance-wheel and pulley, and its pitman-connections with the pounders, the crank-handle, its shaft and pulley, and the belt-connection between the latter pulley and that on the crank-shaft, all arranged substantially as described.

4. In a washing-machine, the combination, with the frame composed of cross-beam C and uprights B B, having arms E E, of the legs D D, hinged to the uprights B B and clamped to the arms E E, and the leg F, hinged to the beam C, said three legs being provided with clamps for attachment with the tub, consisting each of a rigid jaw and a pivoted movable jaw governed by a set-screw, substantially as described.

5. The combination, with the supporting frame-work, of the vertically-reciprocating pounders, the horizontal crank-shaft G, journaled in yielding bearings, the pitmen K, connecting with said shaft, and the adjustable clamps for connecting the pitmen to the pounder-rods, consisting of the swiveled plates *i*, curve-faced jaws *k k*, pivoted thereto, and the thumb-screws *l*, all arranged substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ORLANDO PATRICK.

Witnesses:

CHAS. J. FASTLABEN,
GEO. S. OEFELIN.