

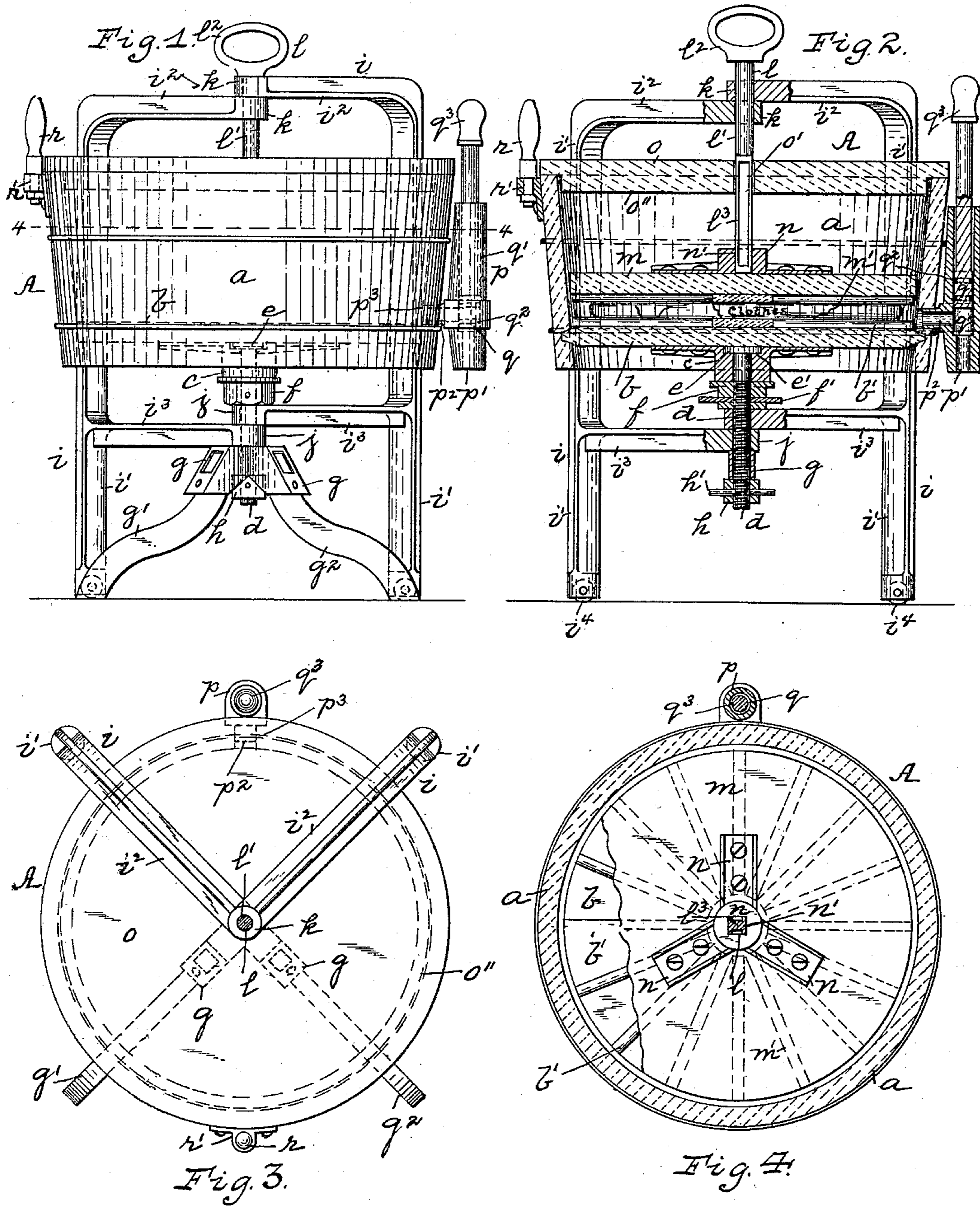
No. 624,220.

Patented May 2, 1899.

H. KLEIMAN.
WASHING MACHINE.

(Application filed Mar. 10, 1898.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY KLEIMAN, OF ALLEGHENY, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 624,220, dated May 2, 1899.

Application filed March 10, 1898. Serial No. 673,318. (No model.)

To all whom it may concern:

Be it known that I, HENRY KLEIMAN, a citizen of the United States, and a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to washing-machines, and has special reference to the class of washing-machines which are operated by an oscillating movement of the tub.

My invention consists, generally stated, in the novel construction, combination, and arrangement of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use the same, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view of my improved washing-machine. Fig. 2 is a vertical section thereof. Fig. 3 is a top view of the same; and Fig. 4 is a cross-section on the line 4 4, Fig. 1.

Like letters herein indicate like parts in each of the figures of the drawings.

My improved washing-machine A is provided with the clothes receptacle or tub *a*, which is preferably of the ordinary approved construction and is provided with the bottom *b* therein. Secured to the under surface of the bottom *b* is the journal-bearing *c*, within which fits the shaft or screw-bolt *d*, having a head *e* thereon at its upper end fitting within a seat *e'* in the bearing *c*. The lower face of the bearing *c* is chilled, so as to bear against a chilled face on the nut *f*, which is screwed onto the bolt *d* and is secured on or held in place by a pin *f'*, passing through the nut *f* and bolt *d*. Fitting loosely around the lower end of the bolt *d* is the bracket *g* for securing and holding the legs *g' g'*, which extend out at right angles to each other and are adapted to rest firmly upon the floor of the apartment in which the machine is operated. A nut *h* is screwed upon the lower end of the bolt *d* below the bracket *g*, and a pin *h'* passes through the nut *h* and bolt *d* for holding the nut *h* in place.

Fitting around the tub *a*, opposite to the

legs *g' g'*, are the two vertical standards *i'*, which, with the legs *g' g'*, form the supporting-frame *i*, having formed as part thereof the upper and lower horizontal portions *i² i³*. The lower horizontal portions *i³* are provided with the sockets *j* at their ends, which are adapted to fit loosely around the bolt *d* between the nut *f* and the bracket *g*, and the upper horizontal portions *i²* are provided with the sockets *k* at their ends, which are adapted to fit loosely around the circular portion *l'* of a detachable center pin *l* entering within the tub *a* and provided with a handle *l²* at its upper end and a square portion *l³* at its lower end for removably engaging in the upper rubber *m*, as hereinafter described. Casters or rollers *i⁴* are journaled in the lower ends of the vertical standards *i'* to permit the movement of the machine over the floor of the apartment in which it is used.

Fitting within the tub *a* is the upper rubber *m*, which has a socket *n* secured to its upper surface and is provided with a square hole *n'* therein for engaging with the square portion *l³* on the detachable pin *l*.

The bottom *b* of the tub *a* is provided on its upper surface with a series of radial ribs *b'*, and the upper rubber *m* is also provided on its under surface with a series of radial ribs *m'* to assist in the rapid washing of the clothes. A top or cover *o*, having an opening *o'* therein for fitting around the pin *l*, is adapted to fit down on top of the tub *a* and is provided with a depending portion *o''* thereon for fitting within the tub *a*.

Secured to the outside of the tub *a* is the valve-casing *p*, which is provided with the open lower end *p'*, and a nipple *p²* for fitting within an opening *p³*, communicating with the tub *a* at or near the bottom *b* thereof. The nipple *p²* communicates with a cylindrical passage *q'* in the casing *p*, having a valve *q* fitting therein, which is preferably provided with flexible rubber rings *q²*, although cork or other suitable and flexible material can be used, and the valve *q* is provided with a handle *q³* thereon for raising and lowering the same when desired.

Screwed to the exterior of the tub *a* is the bracket *r'*, to which is bolted an operating-handle *r* for rotating or oscillating the tub *a* during the washing operation.

The operation of my improved washing-machine is as follows: The detachable pin *l*, cover *o*, and upper rubber *m* being removed, the tub *a* is then filled with the required
 5 amount of hot soapy water, and the clothes to be washed are placed within the tub *a*. After this is done the upper rubber *m* is inserted within the tub *a* with its radial ribs *m'* resting tightly and solidly down upon the
 10 clothes therein and the cover *o* placed in position over the tub *a*. The detachable pin *l* is then inserted through the bearings *k* in the upper horizontal portions *i*² of the supporting-frame *i* and through the opening *o'* in
 15 the cover *o* until the square portion *l*³ on the pin *l* fits within the square hole *n'* in the socket *n*, so as to hold the upper rubber *m* stationary when the machine is ready to wash the clothes therein. The operator by grasping
 20 the handle *r* and giving the tub *a* quick turns half-way around in one direction and reverse turns in another direction for a short time the clothes within the tub *a* will become thoroughly washed. After the clothes are
 25 washed and it is desired to remove the same all that is necessary is to lift or remove the detachable pin *l* by means of its handle *l*², so freeing the cover *o* and follower *m*, both of which can then be removed from the tub *a*,
 30 when the washed clothes can be taken out of the tub *a* for bluing or drying, as it is desired. By raising the valve *q* to the position shown in Fig. 2 the water within the tub *a* can pass out through the nipple *p*² in the tub *a* and
 35 the open lower end *p'* of the passage *q* in the casing *p* into any suitable receptacle under the casing *p* or escape, as desired.

It will thus be seen that my improved washing-machine is cheap and simple in its construction and operation and will not easily
 40 get out of order.

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

1. In a washing-machine, the combination

of a clothes receptacle or tub supported on 45 legs and having a bottom therein provided with radial strips on its upper surface, an upper rubber fitting within the tub and provided with radial ribs on its lower surface, a cover fitting over said tub and provided with 50 an opening therein, a screw-bolt journaled to the bottom of the tub and connected to the supporting-legs of the tub, a detachable pin extending through the opening in the cover and engaging with the upper rubber, and a 55 supporting-frame extending around said tub and engaging with the screw-bolt and detachable pin.

2. In a washing-machine, the combination of a clothes receptacle or tub supported on 60 legs and having a bottom therein provided with radial strips on its upper surface, an upper rubber fitting within the tub and provided with radial strips on its lower surface, a cover fitting over said tub and provided with an 65 opening therein, a screw-bolt journaled to the bottom of the tub and connected to the supporting-legs thereof, a supporting-frame extending around said tub having lower arms thereon journaled around the screw-bolt and 70 upper arms extending over the top of the tub, and a detachable pin having a handle thereon extending loosely through said upper arms, through the opening in the cover and connected to the upper rubber, said detachable 75 pin having a square portion at the lower end for engaging said upper rubber, and a round portion at its upper end for engaging with the upper arms of the supporting-frame.

In testimony whereof I have hereunto set 80 my hand at Pittsburg, in the county of Allegheny and State of Pennsylvania, this 26th day of February, A. D. 1898.

HENRY KLEIMAN.

Witnesses:

JEANNE L. TOTTEN,
 J. N. COOKE.