B. Reed,

Washing Machine

No. 33,363. Patented Sep. 24, 1861.

Fig. 1.

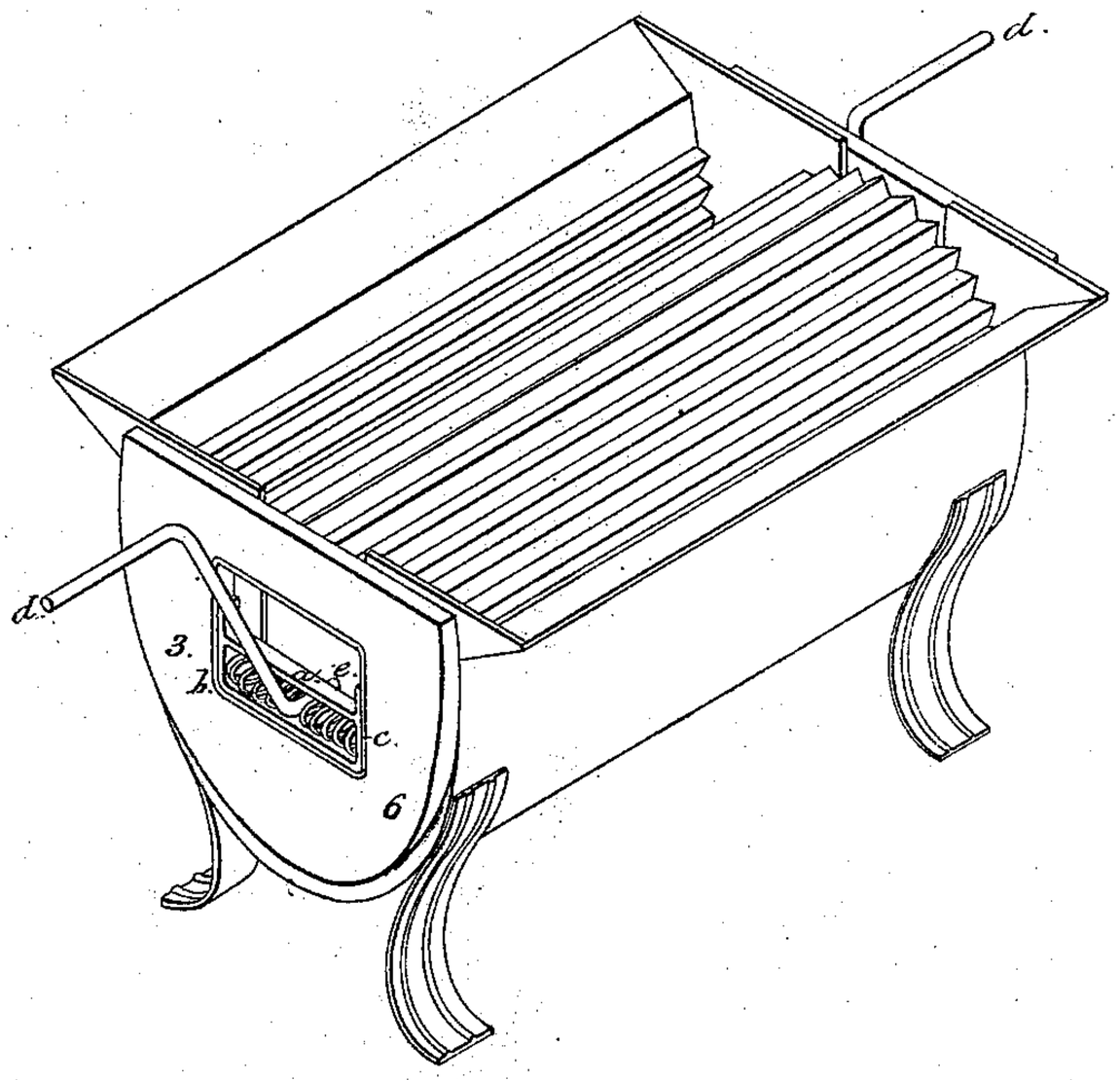
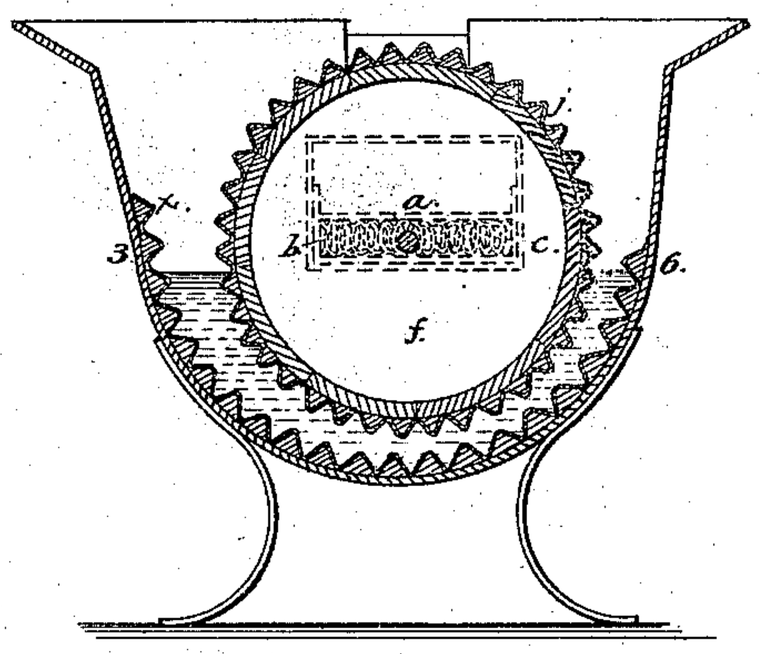


Fig. 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

BENJAMIN REED, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **33,363,** dated September 24, 1861.

To all whom it may concern:

Be it known that I, BENJAMIN REED, of Pittsburg, in the county of Allegheny, in the State of Pennsylvania, have invented a new and Improved Washing-Machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The nature of my invention consists in an arrangement for imparting to the cylinder of the ordinary washing-machine a vertical horizontal and rotary motion.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, Figure 1 is a perspective view of the machine. Fig. 2 is a transverse section of the machine.

3 is the front of the machine, and 6 is the back of the machine.

The bottom of the case or tub of the machine is lined with corrugated zinc *x*. The cylinder *f* is covered with corrugated zinc *j*.

e is the axle of the cylinder *f*.

a are the journal boxes or bearings of the axle *e*.

d are the cranks for operating the cylinder *f*.

b and *c* are spiral springs, which are used for holding the axle *e* of the cylinder in its proper position in the journal-boxes, and also for the purpose of giving the cylinder *f* a horizontal motion when pressed by the clothes in process of being washed. The journal-boxes *a* move vertically in slots on the sides of the openings which contain them.

It will be observed that by the arrangement of the movable journal-boxes *a* in combination with the springs *b* and *c* a vertical horizontal and rotary motion can be imparted to the cylinder, thereby keeping the cylinder at all times in contact with the clothes, and also preventing the clothes from being too severely rubbed.

The operation of my machine is as follows: The clothes are put in at the front of the machine, and an oscillating motion imparted to the cylinder *f* by means of crank *d* until they are sufficiently cleansed. They are then taken out and wrung and rinsed in the ordinary manner. It will be observed that when the clothes are first put in the spiral springs *b* and *c* exert a yielding pressure upon them and prevent too severe a rubbing, so that when the clothes reach the bottom of the cylinder the weight of the cylinder alone is upon them, as the journal-boxes *a* move vertically in their slots, thus permitting the clothes to pass to the other side of the cylinder, when the motion of the crank is reversed, and the clothes thus carried alternately from side to side of the cylinder, all the time subjected to a yielding pressure, are thoroughly cleansed without being injured by severe rubbing.

Having thus described the nature, construction, and operation of my invention, what I claim as of my invention, and desire to secure by Letters Patent of the United States, is—

The arrangement of the springs *b* and *c* and movable journal-boxes *a*, when used in connection with axle *e* of cylinder *f*, arranged, constructed, and operated substantially as herein described, and for the purpose set forth.

BENJAMIN REED.

Witnesses:

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