

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **182,903**, dated October 3, 1876; application filed July 17, 1876.

To all whom it may concern:

Be it known that we, ALEXANDER R. DICKASON and ELIAS A. BARRETT, of Lyndon, in the county of Osage, and in the State of Kansas, have invented certain new and useful Improvements in Washing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a washing-machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of our machine. Fig. 2 is a longitudinal section of the same. Fig. 3 is a view of the operating mechanism. Fig. 4 is a plan view of the wash-tub.

A represents the box, divided by a transverse partition, B, into two compartments, A¹ and A². Under the compartment A¹ is attached a furnace, C, for heating water in said chamber A¹ while the washing is going on in the chamber A². The two chambers are provided, respectively, with lids B¹ and B². In the chamber A² is placed a false perforated bottom, D, on the upper side of which are fastened a number of ribs, *a a*, arranged radially in circular form, as shown in Fig. 4, and surrounded by a rim, *b*. This forms the tub in which the clothes are placed, and the pounder operates.

The pounder consists simply of two pieces of wood, E E, framed together in the form of a cross, and having their lower edges notched, as shown, and then mortised into a head, G, formed on the lower end of a rod, G'. This rod passes up through the lid B², and through a forked guide, I, attached to the top of a standard, H, which is fastened on said lid.

The upper end of the rod G' is, by a screw, *d*, connected to the upper outwardly-bent end of a vertical rod, J, the screw playing freely in the hole in said rod. Surrounding the

screw *d*, between the rods G' and J, is a spiral spring, *e*, which allows the pounder to yield as it strikes the clothes, so as not to injure the same.

The vertical rod J passes down through the guide I, and also through another guide, I', secured to the standard H, and said rod is by a pitman, *h*, connected with a crank, *i*, on a short shaft passing through the standard, said shaft being provided with a pinion, *f*, within a slot in the standard. In this pinion meshes a cog-wheel, K, secured on a shaft, *k*, which is provided with a crank, L, for operating the machine. On the side of the standard H, near the foot, is pivoted a pawl, *m*, which falls down upon the upper surface of a ratchet-wheel, *n*, secured on the rod G'.

In operation it will be seen that when the pounder ascends, the pawl *m*, acting upon the ratchet-wheel *n*, will rotate the rod and pounder a certain distance. Thus the pounder has a vertically-reciprocating and a rotary motion at the same time.

This operating mechanism may be used for churns just as well as for washing-machines.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The square perforated bottom D, provided with the radial tapering ribs *a*, arranged in circular form, surrounded by the rim *b*, and detachably secured within the chamber A², as set forth.

2. The combination of the pounder E, rod G', screw *d*, rod J, and spring *e*, as and for the purposes herein set forth.

3. The combination of the rod G' with ratchet-wheel *n*, the pawl *m*, rod J, pitman *h*, crank *i*, gears *f* K, and crank L, all constructed substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 29th day of June, 1876.

ALEXANDER R. DICKASON.
ELIAS A. BARRETT.

Witnesses:

W. A. MODARIS,
JAMES CALHOUN.