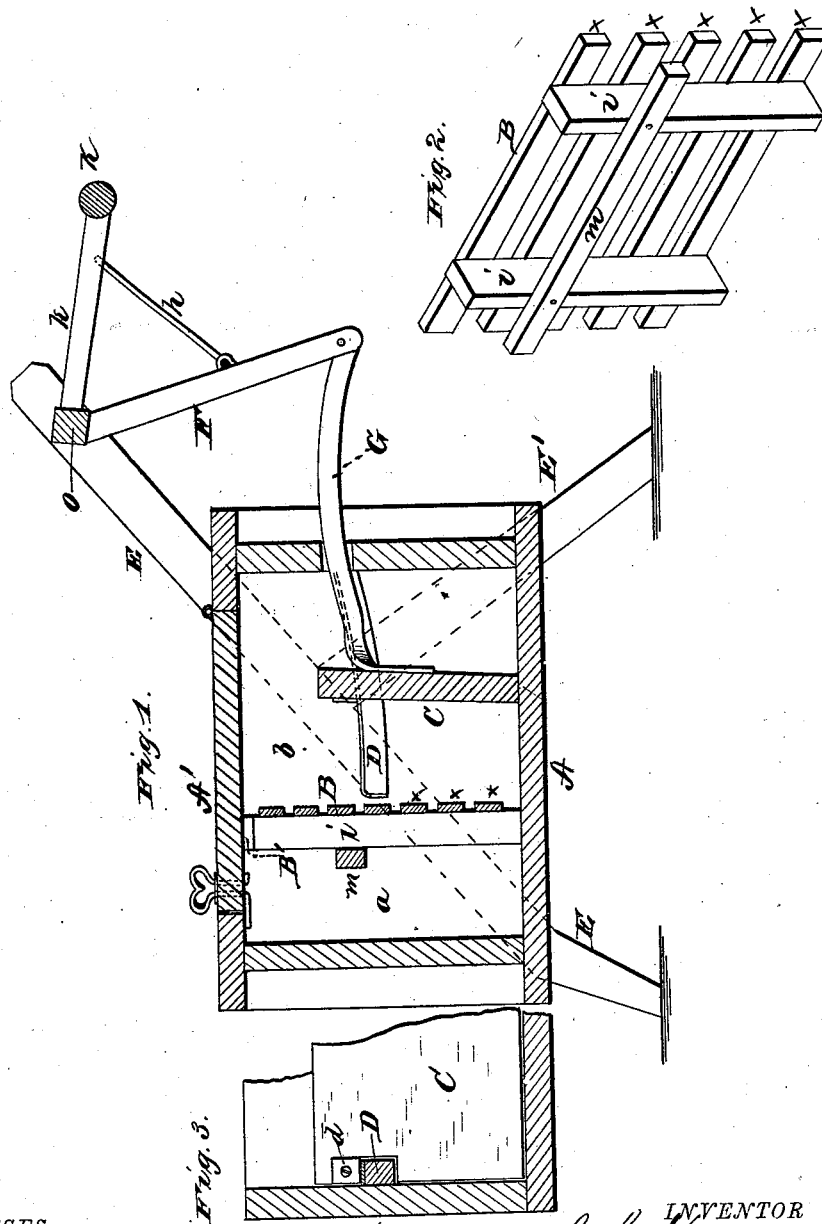


H. H. KINDER.
Washing-Machine.

No. 206,578.

Patented July 30, 1878.



WITNESSES
F. L. Curand
H. Aubrey Toulmin

By Geo. Buchanan
and Alexander Mason Attorneys

INVENTOR

H. H. Kinder

UNITED STATES PATENT OFFICE.

HARVEY H. KINDER, OF WEST BROWNSVILLE, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **206,578**, dated July 30, 1878; application filed May 29, 1878.

To all whom it may concern:

Be it known that I, HARVEY H. KINDER, of West Brownsville, in the county of Washington, and in the State of Pennsylvania, 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 my invention consists in the construction of a washing-machine, as hereinafter more fully set forth.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a longitudinal section taken through the center of the machine. Fig. 2 represents the stationary rack removed from the box; Fig. 3, a broken view of the interior of the machine, showing the mode of connecting the washing-board to the ways in the box.

In the drawings, A represents the box, within which the clothes are placed, and which is provided with a hinged lid, A'. E represents a bar of wood, which extends from one corner of the box diagonally to the other corner. This bar projects above the top of the box and below the bottom of the same. There are two such bars, and one of them is arranged on one side of the box and a similar one on the opposite side, so that their lower ends form two of the feet, to support the box at one end. At each side of the box, at the other end, is a bar, E', which has its upper end resting under the bar E, and its lower end projecting below the box, as seen. These two bars, E', form the feet for the other end of the box.

The interior of the box is formed into two compartments, *a b*, by a removable rack, B, which is placed between two uprights, B', one of which is secured to each side of the box and the forward ends of the ways D. This rack is composed of a series of slats, *x x*, connected to strips *i i*, and to the back of these strips is secured a bar, *m*, near the top. When the rack is in position, the slats *x x* are in front of the uprights B', and the bar *m* in rear of the same.

In the compartment *b* of the box, secured to each side of the same, is a curved way, D, having a metallic covering.

C represents the washing-board. This board

is placed upright, and does not extend to the top of the box. Each end of the board has a notch cut in it, as seen in Fig. 3, and the top of the notches are bound with leather or similar material to prevent wear. The board is so placed that the notched portions fit around the ways D, and the board is movable back and forth on the ways.

G represents a slightly-curved metallic lever, which is connected to the back of the wash-board and extends through an opening in the rear of the box. The outer end of this lever is hinged to an upright bar, F, which is connected rigidly to a rock-shaft, O, secured between the upper extended ends of the long bars E.

From the rock-shaft, extending rearward, are two stiff bars, *k*, to the extremity of which is attached the cross-bar K, forming the handle to operate the wash-board. *h* is a V-shaped brace-rod, for connecting the bars *k* and the bar F.

By moving the handle K up and down it will be seen that the wash-board is moved back and forth within the box.

In operation, hot suds are placed in the box with the clothes to be washed. The handle is then worked up and down, and the wash-board caused to press the clothes against the open rack, so that the water will pass through and the clothes be pressed against the rack. As the board recedes the clothes are rolled and their position changed, and as the board is drawn back by means of the curved ways the board rises slightly from the bottom of the box to allow the water to pass under.

It is contended that this washing-machine is easy to work and will wash all kinds of clothing without injury.

What I claim as my invention is—

The curved ways D, secured to the sides of the box, the notched upright board C, moving on said ways, and operated by the curved metallic lever G, bar F, rock-shaft O, and handle *k* K, all combined and operating substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of April, 1878.

HARVEY H. KINDER.

Witnesses:

ALVAN DONNAN,
JAMES BRADY, Jr.