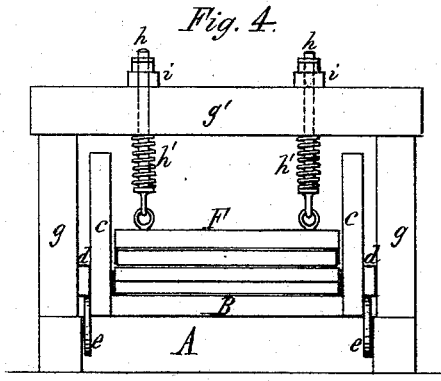
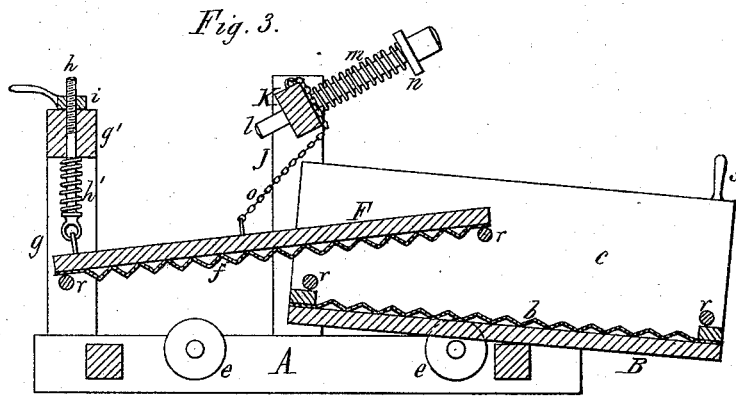
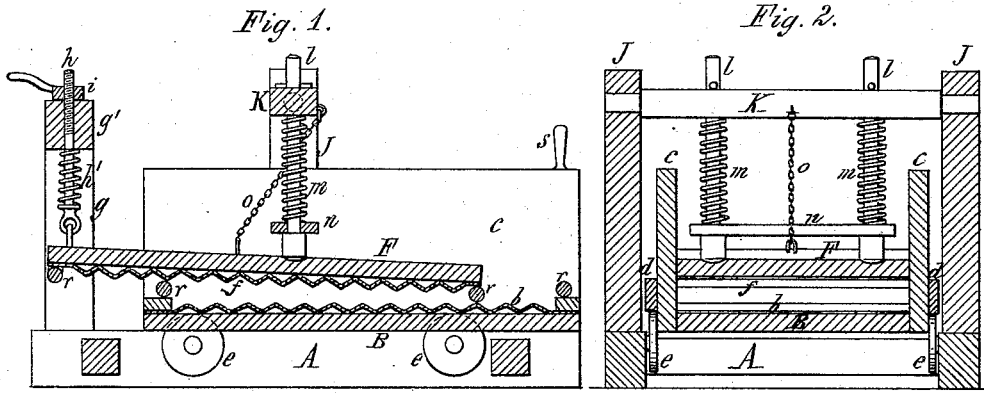


P. SCHWEIKHART.
Washing-Machine.

No. 163,265.

Patented May 11, 1875.



Edward Wilhelm
James J. Bonner Witnesses

P. Schweikhart Inventor
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UNITED STATES PATENT OFFICE.

PHILIP SCHWEIKHART, OF BUFFALO, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 163,265, dated May 11, 1875; application filed April 13, 1875.

To all whom it may concern:

Be it known that I, PHILIP SCHWEIKHART, of the city of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Washing-Machines, of which the following is a specification:

This invention relates to a washing-machine, which is provided with two horizontal rubbing-boards, one of which is held stationary while the other one is moved back and forth by hand or other power, so that the clothes placed between the rubbing-surfaces are rolled up, and the different parts thereof rubbed against each other, whereby the dirt is detached from the clothes with great dispatch, and without injury to the same.

In the accompanying drawing, Figure 1 is a longitudinal section of my improved washing-machine. Fig. 2 is a cross-section thereof. Fig. 3 is a longitudinal section representing the parts in position for receiving the clothes to be washed. Fig. 4 is a rear-end view of the machine.

Like letters of reference designate like parts in each of the figures.

A is the stationary frame or bed of the machine, consisting of two horizontal beams connected by suitable cross-pieces. B is the lower and movable horizontal rubbing-board, provided on its upper surface with a sheet of corrugated zinc, *b*, or any other suitable rubbing-surface, and secured between the lower ends of two vertical side boards, *c c*, as clearly shown in Fig. 2. *d d* represent two horizontal strips or ribs secured to the outer side of the side boards *c*, for supporting the same on rollers or wheels *e*, arranged in the bed A of the machine. F is the upper stationary rubbing-board, provided on its under side with a suitable rubbing-surface, *f*, and fitting snugly between the side boards *c c* of the lower rubbing-board, so as to form with the latter a kind of box or receptacle, in which the clothes are confined while being operated upon. *g g* are two uprights or standards, secured to the rear end of the bed A, and connected at the top by a cross-beam, *g'*. *h* represents one or more fastening-bolts, secured to the cross-bearing so as to project downwardly and support the rear end of the stationary rubbing-board F, which is hinged to the lower ends thereof.

The bolts *h* are provided below the cross-beam *g'* with spiral springs *h'*, and above the same with screw-nuts *i*, so that the height at which the rear end of the board F is supported can be readily adjusted in accordance with the quantity of clothes desired to be operated upon at a time. J J are two uprights, secured to the bed A near the middle thereof, on each side of the side boards *c c*, and K a cross-head extending across the machine, above the board F, and pivoted in the upper ends of the uprights J, as clearly shown in Fig. 3. *l* represents two pressure-bars, guided in the cross-head K, and provided with two spiral springs, *m*, abutting against the under side of the cross-head, and bearing upon a cross-bar or follower, *n*, connecting the lower ends of the bars *l*, so as to cause the latter to press downward upon the stationary board F.

The latter being pivoted at its rear end, and the spring-pressure bars *l* bearing upon it near its middle, it is enabled to readily adjust itself to the thickness of the bundle of clothes introduced between the rubbing-surfaces and a uniform and proper pressure upon the clothes is insured thereby.

o is a chain or rope, connecting the pivoted cross-head K with the upper board F.

By turning the cross-head K, the spring-bars *l* are swung upward away from the upper rubbing-board, while the front end of the latter is simultaneously raised by the chain *o*, as clearly shown in Fig. 3, so as to permit the introduction of the clothes to be washed between the rubbing-surfaces, or the removal of the washed clothes therefrom.

r represents transverse guard-rollers, preferably arranged near the ends of the rubbing-surfaces, to better confine the clothes between the same.

Upon placing the garment or clothes to be washed on the lower rubbing-board, and reciprocating the same by means of the handles *s*, or in any other suitable manner, the garment or clothes are rolled up into a bundle by the motion of the reciprocating board, and the different parts or portions of the garment or clothes rubbed against each other, whereby the dirt is detached in a manner similar to the washing by hand, and without any injurious strain on the garment or clothes, which

are cleaned with great ease and speed, and without straining the seams, loosening or tearing off the buttons and similar injuries, which frequently occur in the use of ordinary washing-machines.

What I claim as my invention is—

1. The combination, with the frame A, of the stationary rubbing-board F, pivoted at one end, and provided with spring-pressure bars I, and the reciprocating rubbing-board B, substantially as and for the purpose hereinbefore set forth.

2. The combination, with the movable rubbing-board B, of the stationary board F, hinged at one end to the cross-piece *g'*, and attached near the middle to the pivoted cross-head K, so that by turning the latter the free end of the board F is raised or lowered, substantially as and for the purpose hereinbefore set forth.

PHILIP SCHWEIKHART.

Witnesses:

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