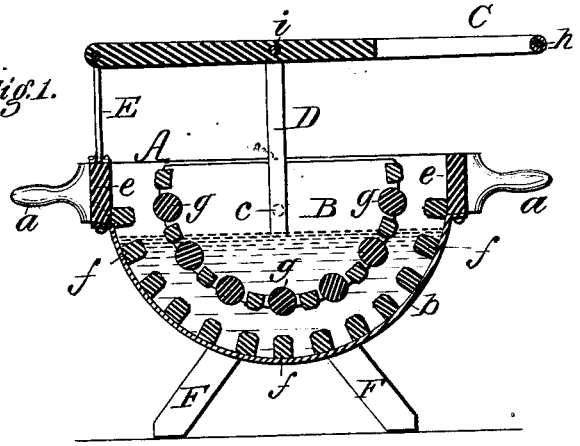
H. SIEVERT & F. J. YOUNG.

Washing-Machine.

No. 200,942. Patented March 5, 1878.

Fig. 1.



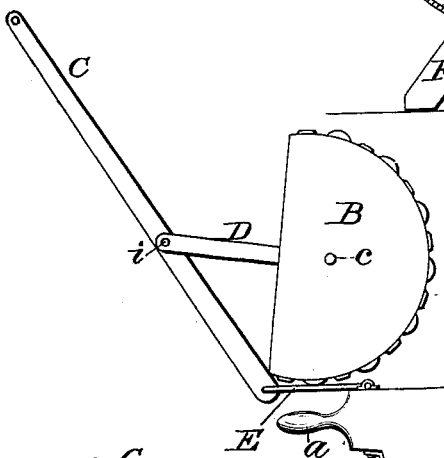


Fig. 2.

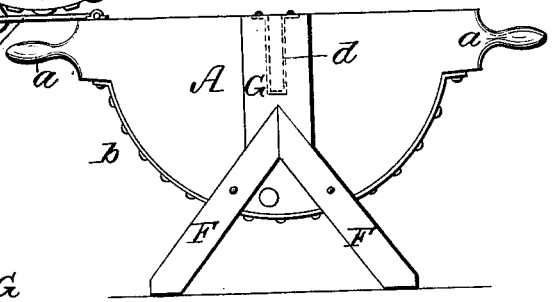


Fig. 3.

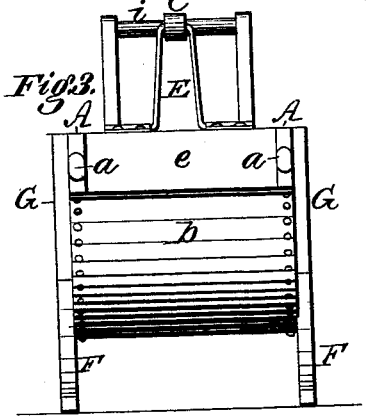


Fig. 4.

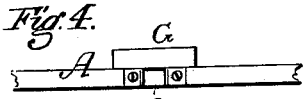


Fig. 5.

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UNITED STATES PATENT OFFICE.

HEINRY SIEVERT AND FRANK J. YOUNG, OF DENISON, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **200,942**, dated March 5, 1878; application filed September 22, 1877.

To all whom it may concern:

Be it known that we, HEINRY SIEVERT and FRANK J. YOUNG, of Denison, in the county of Crawford and State of Iowa, have invented certain Improvements in Washing-Machines, of which the following is a specification:

Our invention relates to that class of washing-machines in which a semicircular oscillating scrubber is arranged within a correspondingly-concave tub, the articles to be cleansed being placed between the scrubber and the bottom of the tub; and the improvements consist in the peculiar construction and arrangement of a horizontal lever, connected with the scrubber, and also connected at one end with a peculiar upright arm or standard pivoted to the upper side of the tub, whereby an easier movement is permitted in operating the machine, and whereby the pressure upon the articles operated upon may be regulated and controlled, and whereby the scrubber may be raised up out of the tub and conveniently supported on top of the same at one end, giving free access to the interior of the tub, all as hereinafter explained.

In the accompanying drawings, Figure 1 represents a longitudinal section of our improved machine; Fig. 2, a side elevation of the same, showing the scrubber elevated and turned back, resting on the upper side of the tub; Fig. 3, an end view of the machine, and Figs. 4 and 5 views illustrating certain details of construction.

In constructing our improved machine we first provide a water-tight tub, consisting of two side pieces, A, of semicircular form, or nearly so, connected at their ends by means of cross-pieces *e*, the extreme ends of said side pieces being carried out and fashioned into handles *a*, by which the machine may be lifted and carried about. To these side pieces we secure a sheet-metal bottom, *b*, by means of screws or other suitable devices, care being taken that a water-tight joint is secured between the wood and metal, and across the inner face of this bottom we arrange a series of transverse slats or ribs, *f*, as shown in Fig. 1.

The side pieces A are each provided with a vertical slot midway between their ends, as shown by dotted lines in Fig. 2, and as seen in Fig. 4, said slots being faced with strips *d*, of hoop or sheet metal, as shown. These slots are closed on the outside by broad wooden strips G, one on each side piece, extending down somewhat farther than the slot, and notched at the lower end to receive the upper ends of legs F, upon which the tub is supported. Two of these legs are furnished for each side of the machine, and are arranged as represented in Fig. 2, their lower ends being spread apart to give a firm bearing to the machine, and their upper ends being brought together, and forming an angle corresponding exactly to that of the lower notched end of the strip G, in which they are seated. The legs are secured to the side pieces A, and their upper ends are firmly held in place by the strips G, by which arrangement the legs are caused to brace each other, and the body of the machine is rendered very strong and rigid. The strips G and legs F also serve to prevent the side pieces A from warping. The tub being thus constructed, we next provide a scrubber, B, consisting of two semicircular side pieces, between which extend a series of transverse slats or rollers, or slats and rollers *g* alternated, as shown in Fig. 1, the latter arrangement being considered preferable.

The scrubber B is furnished, on the outer face of each side piece, with a short projecting stud or pin, *c*, of a proper size to enter freely the slots in the sides of the tub, said studs or pins *c* being located somewhat below the center from which the circumference of the scrubber B is struck or drawn.

The studs or pins *c* extend into the slots in the sides of the tub, and form pivots on which the scrubber oscillates when the machine is in operation. By thus placing the studs or pins *c* below the center, the scrubber is caused to approach closer to the face of ribbed bottom toward the end of each oscillation, by which means a squeezing or pressing action is produced in addition to the rubbing action of the scrubber, thus greatly increasing the efficiency of its operation.

From the inside of the scrubber two vertical arms, D, are carried upward, one from each side piece of the scrubber, as shown in Figs. 1 and 2, said arms being connected at their upper ends by a transverse rod, *i*. C is a horizontal lever or handle, through which

the rod *i* passes transversely, as shown in Figs. 1 and 3, one end of which lever or handle is attached to an upright arm or standard, E, pivoted at its lower end in bearings mounted on the upper side of one of the end cross-pieces *e*, said arm or standard consisting of two upright legs, joined at their upper ends by a short horizontal portion passing through the end of the lever or handle C, as shown, and spread apart at their lower ends to give a broad firm bearing, said legs being formed with outwardly-projecting feet seated in bearings, as above mentioned. The opposite end of the lever C is divided and spread open, as shown in Fig. 5, and a suitable roll or hand-piece, *h*, placed lengthwise between the fork thus formed, by which means a very serviceable handle is produced, by which to operate the machine.

It will be seen that by the above arrangement of parts the scrubber B may be raised or lowered in the tub, or removed therefrom at will, by simply raising or lowering the handle or lever C.

The bearings of the standard or arm E are so arranged that when the standard is swung over to a horizontal position outside of the tub it shall rest upon the upper face of the cross-piece *e*, and be thereby prevented from moving any farther. When in this position the arm or standard E forms a support for the scrubber B to rest upon when raised out of the tub, thus leaving the tub entirely open, and permitting the free insertion or removal of articles, and at the same time sustaining the scrubber in a position where it is free from dirt.

If desired, the lever or handle C may be swung over, and its end allowed to rest upon the floor, in which case the scrubber B would be supported upon the upper side of the said lever equally free from contact with dirt; but the first arrangement or manner of supporting it is preferred.

When it is desired to use the machine, a sufficient quantity of water and the articles to be cleansed are placed in the tub, and the scrubber placed in above them, the studs or pins *c* being passed into the slots in the sides of the tub. The handle or lever C is then moved back and forth longitudinally, causing the oscillation of the standard or arm E and scrubber B. The articles in the tub are thus worked and scrubbed between the scrubber B and the ribbed bottom *b*.

As previously stated, the studs or pins *c* are placed below the center of the circle on which the scrubber is formed, and by this means we combine a squeezing or pressing action with the usual scrubbing action, and also prevent the tendency of the articles to work upward out of the tub which is usual with this style of machine, the face of the scrubber coming by this means closer to that of the bottom at the latter part of each oscillation than at intermediate points, on the side toward which the scrubber oscillates. On the opposite side the reverse of this takes place, the space being increased, and thus giving plenty of room for the articles, and preventing their crowding upward.

By means of the horizontal handle or lever C a much easier motion is permitted in operating the machine, and the pressure of the scrubber upon the articles may be perfectly regulated. A hole is formed in one side of the tub, at or near the lowest point of the same, and provided with a plug or faucet, by which to close the same when the machine is in use or open it when it is desired to draw off the water.

We are aware that an oscillating rubber has been suspended from a sustaining-arm which was hinged to the tub in such manner that it could be turned over backward when the rubber was to be removed; and this we do not claim.

Having thus described our invention, what we claim is—

1. In combination with the journaled oscillating scrubber B, mounted in the body A, the lever C, pivoted at its middle to the scrubber, and connected at one end to the body by a link, E, as shown, whereby the lever is adapted for operating and regulating the pressure of the scrubber.

2. In combination with the body A and scrubber B, constructed as shown, the lever C and link E, constructed and arranged to sustain the scrubber when raised upon the end of the body, in the manner shown and described.

3. In combination with the body A, scrubber B, and lever C, the pivoted standard or link E, made in one piece with the two inclined legs, and arranged as shown.

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