

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 128,076, dated June 18, 1872.

Specification describing a new and useful Improvement in Washing-Machines, invented by JACOB J. SMITH and CHARLES B. CAMP, of Middlebury, in the county of Elkhart and State of Indiana.

Figure 1 is a side view of our improved washing-machine, parts being broken away to show the construction. Fig. 2 is a detail vertical cross-section of the same taken through the line *x x*, Fig. 1. Fig. 3 is a detail horizontal section of one of the uprights and its sliding bearing taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish an improved washing-machine, simple in construction, convenient in use, effective in operation, and inexpensive in construction, being so constructed that it may be secured to the bottom of an ordinary wash-tub; and it consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A are two standards, which are connected near their lower ends by a board or wide bar, B, and near their middle parts by a round or roller, C, which also acts as a guard to prevent the clothes entering between the rollers from becoming entangled with those coming out. Upon the upper ends of the standards A are formed tenons, *a'*, which enter mortises in the end parts of the bar or board D, that connects the upper ends of the said standards where the said tenons are secured in place by detachable pins E, as shown in Figs. 1 and 2. F are three small corrugated rollers, which are pivoted in the arc of a circle to the standards A, as shown in Fig. 2. To the standards A, above the rollers F, is pivoted the large corrugated roller G, the journals of which revolve in bearings H, inserted in slots in the upper parts of the standards A. The edges of the standards A at the sides of the slots

are beveled off, as shown in Fig. 3, and the bearings H are made with inclined flanges, as shown in Fig. 3, to keep the said bearings in place in said slots. The bearings H are made in two parts, the lower part being stationary and the upper part being movable, to enable the roller G to rise as a thicker part of the clothes is passing between the rollers G and F. The upper part of the bearings H is held down, to give the required pressure to the clothes passing between the rollers, by coiled wire springs I, which are placed in circular grooves formed in the standards A at the sides of the slots in said standards A. The upper ends of the coiled springs I rest against the board or bar D. By this arrangement, by removing the pins E, releasing the cross-bar D, the large roller G may be raised, to allow the clothes to be taken out should any part of them become entangled in the rollers. One of the journals of the roller G projects, and to it is attached a crank, J, for operating the machine. K is an upright or post, the lower end of which is made broad or flaring, which is designed to be secured to the center of the bottom of the tub. The standard K passes up through a hole in the center of the cross-bar B, and is slotted to receive the wedge-key L, by which the framework of the machine is secured to said standard.

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

The slotted, grooved, and edge-beveled standards A, the two-part bearings H with inclined flanges, the openings I, and the bar D held by detachable pins, all combined and arranged in a washing-machine, as and for the purpose set forth.

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