(No Model.)

S. J. SMITH.

WASHING MACHINE.

No. 393,931. Patented Dec. 4, 1888.

Fig. 1.

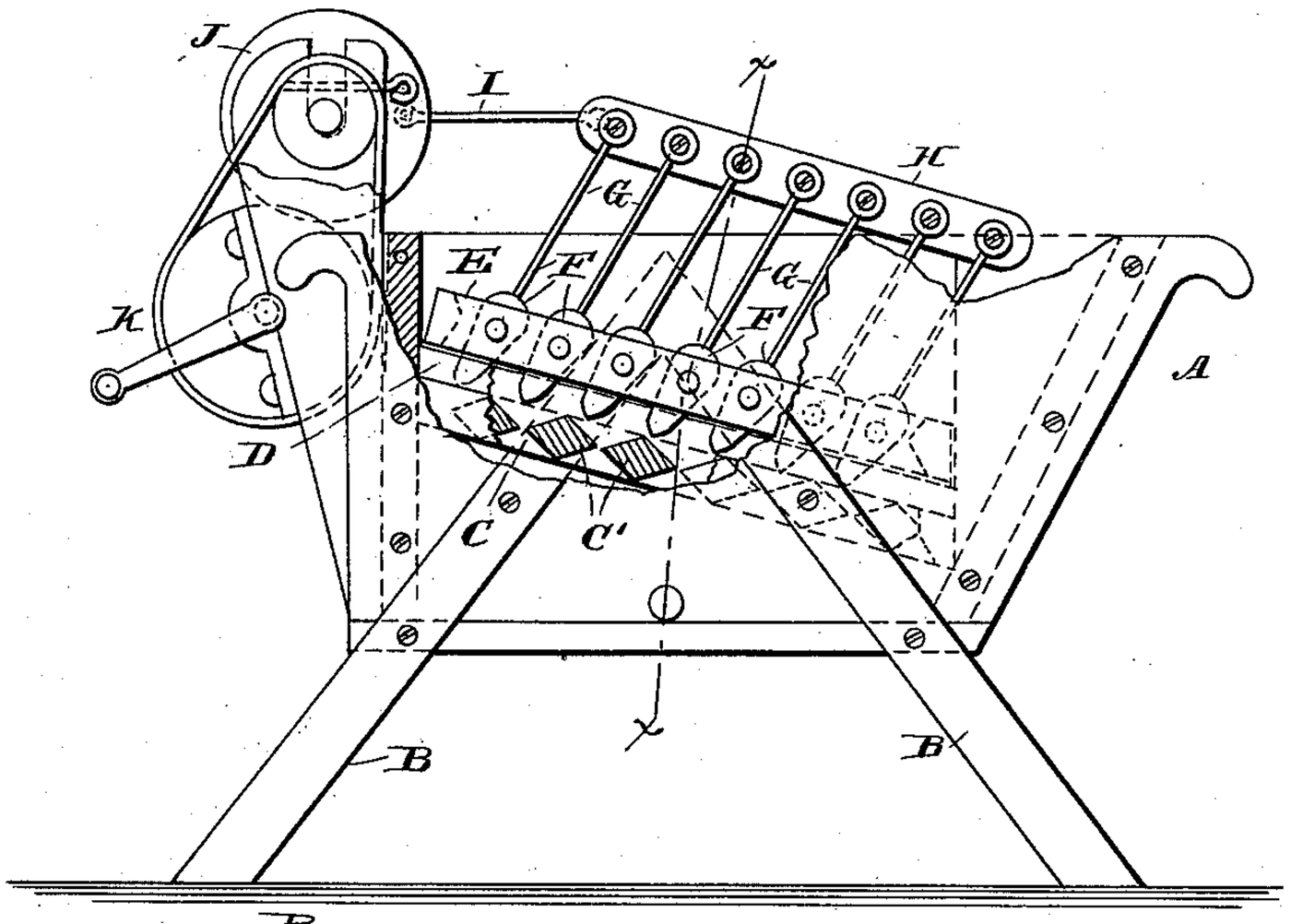


Fig. 2.

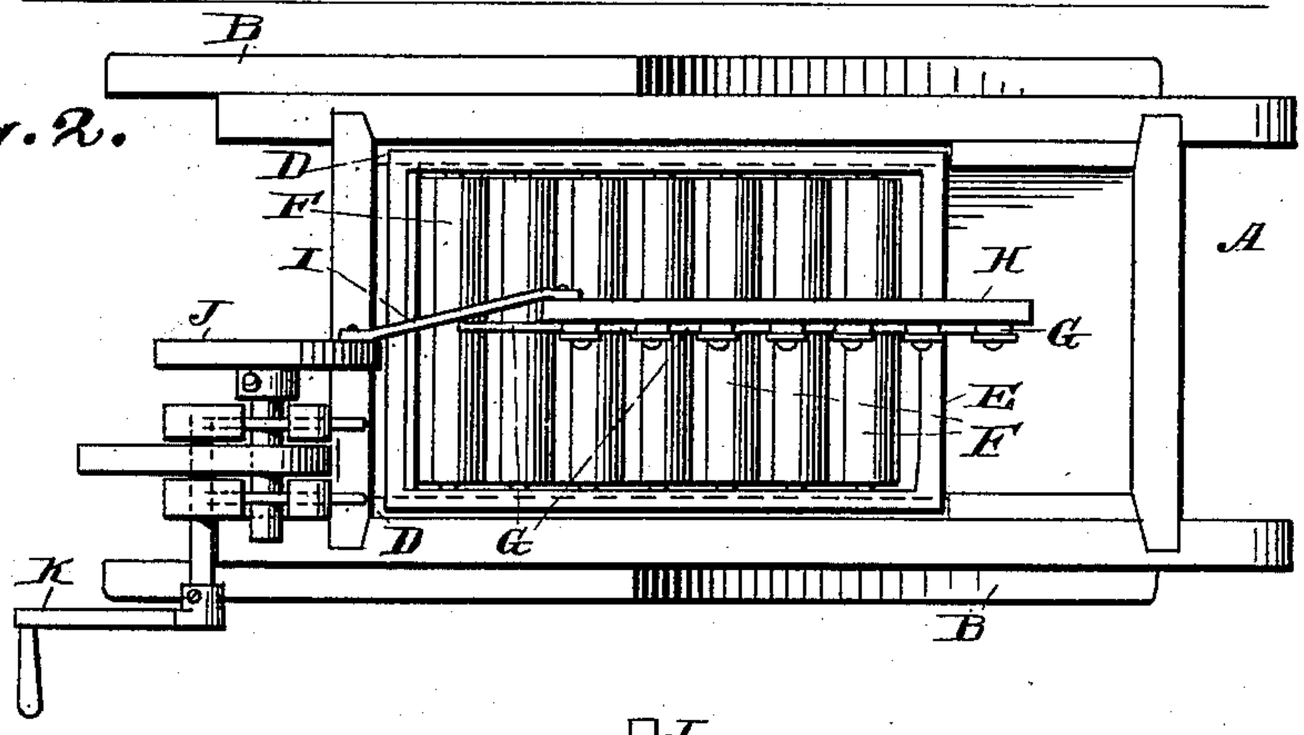
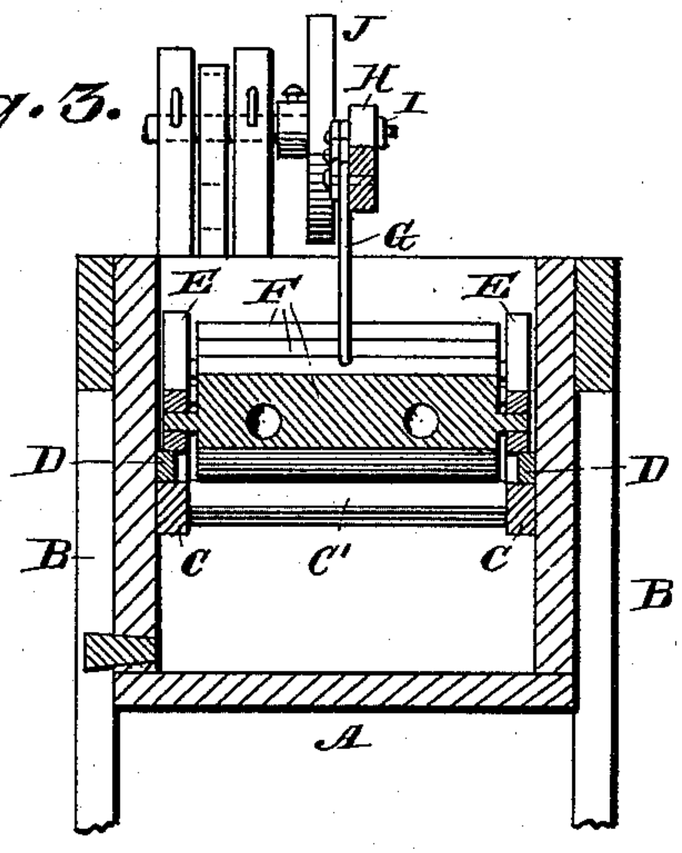


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL J. SMITH, OF TRUCKEE, CALIFORNIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 393,931, dated December 4, 1888.

Application filed June 8, 1887. Serial No. 240,633. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. SMITH, of Truckee, in the county of Nevada and State of California, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

My invention relates to improvements in washing-machines in which a movable rubber or rubbers operate in conjunction with a stationary wash-board; and it has for its object to simplify their construction, to increase their efficiency and rapidity of work, and to render them extremely convenient in use.

The invention consists in a novel construction and combination of parts, as hereinafter fully described, and then definitely claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of a washing-machine embodying my improvements. Fig. 2 is a plan view of the same. Fig. 3 is a cross-section taken on the line *x x*, Fig. 1.

A designates a water-containing tank; B, its supporting-legs; C, a wash-board having slightly-separated diamond-shaped cross-ribs C′ and fixed within the tank A a short distance from the bottom thereof, so as to incline downwardly and forwardly lengthwise therein.

Strips D are fixed to the inner sides of the tank just above the sides of the wash-board frame, are inclined lengthwise parallel therewith, and form rests for the rectangular rubber-frame E, which is thus supported a short distance above the wash-board and parallel therewith.

The rubber-frame E fits closely within the tank, so as to be held from a lateral or lengthwise movement therein; but it can be lifted vertically out of the same, as when the clothes are to be placed on the wash-board C.

The corner angles of the tank are constructed to form vertical guides, in which the rubber-frame E is fitted to slide vertically, so that while accommodating different quantities of clothes between it and the stationary wash-board and bearing upon the clothes by gravity its position will always be parallel to that of the stationary board, and hence the rubbers will act equally upon all parts of the mass of clothes.

A series of equidistant wedge-shaped strips or rubbers, F, is pivoted transversely "slat-like" in the rubber-frame E, and their reduced edges project below the frame nearly into contact with the wash-board ribs.

A rod, G, is fixed to and projects upward from the top of each rubber F, the several rods being in a longitudinal vertical plane and severally pivoted at their upper ends to a single bar, H.

A link, I, connects the rear end of the operating-bar H to a crank or crank-wheel, J, which can be rapidly revolved by multiplying toothed or belt gearing and the crank-wheel K, as shown. The bar H, being thus reciprocated, causes the series of rubbers F to swing rapidly and simultaneously over the face of the wash-board, thus thoroughly rubbing and cleansing the clothes interposed therebetween. By thus subdividing the movement of the rubbing device and keeping the rubber-frame stationary the clothes are kept from wadding up, which is the great fault of the common washing-machine.

The inclination of the wash-board and rubber-frame assists the spreading action, and also keeps the water in which they are both immersed in rapid circulation.

The fouled water can be drawn off through the plugged outlet shown below the wash-board.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The washing-machine herein described, consisting of a water-containing tank having an internal stationary lower wash-board and vertical corner-guides, an upper removable rubber-frame resting above the stationary wash-board and sliding vertically in said corner-guides, a series of oscillating slat-like rubbers pivoted in the rubber-frame and each having an upright rod or shank, a single rigid bar pivotally connecting the shanks of all the rubbers, an operating-shaft mounted to turn in fixed bearings on the tank and carrying a disk or crank, and a connecting-rod jointed to the said rigid bar and to the disk or crank, the whole constructed and adapted for use as herein set forth.

SAMUEL J. SMITH.

Witnesses:
WILLIAM PARK,
HAMLET DAVIS.