

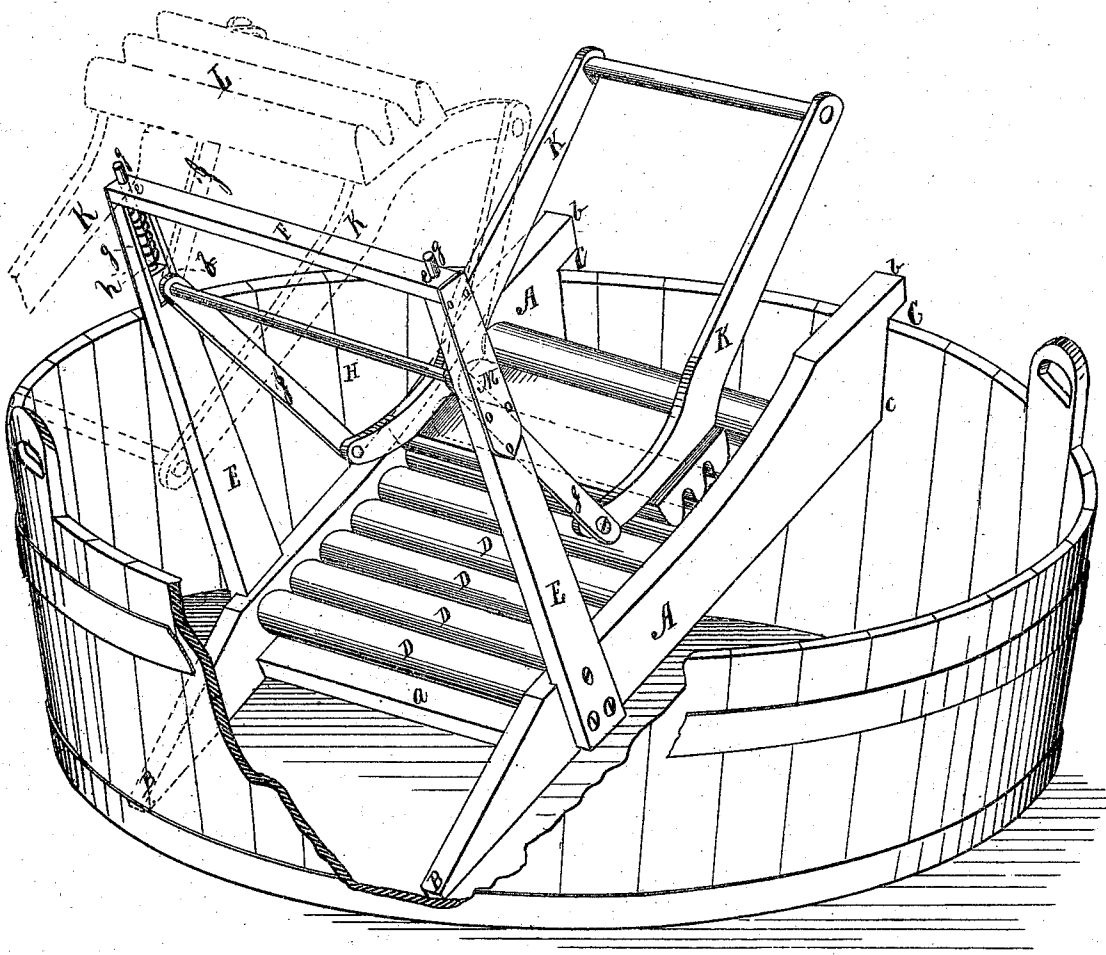
[117.]

JOHN SCHERMERHORN.

Improvement in Washing Machines

No. 118,558.

Patented Aug. 29, 1871.



Witnesses.

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JOHN SCHERMERHORN, OF WATERFORD, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 118,558, dated August 29, 1871.

To all whom it may concern:

Be it known that I, JOHN SCHERMERHORN, of Waterford, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawing making part of this specification, in which the figure in the drawing is a perspective view of the washing-machine, showing the construction of its parts and its application to a washing-tub or vessel.

Like letters of reference indicate corresponding parts in the figures.

This invention is designed as an improvement in washing-machines, and has for its end to render the same cheaper in construction and more effective in use. It consists chiefly in arranging a series of rollers between two parallel slats or frames, which are provided with a series of openings to receive the ends of the rollers, said openings being of a larger diameter than the ends of the rollers, so as to permit of their free revolution. The openings and rollers are arranged so as to form a concave rubbing-surface. The side frames supporting the rollers which constitute the washing-board are braced together by cross-bars, while the ends of said frame are beveled or so formed as to snugly fit upon the inside and top of the rim of the tub, whereby a firm and substantial support is secured when the board is placed in an inclined position in the tub for operation. The side frames are each provided with a vertical standard, which support a transverse shaft, from which depend connecting-bars or links pivoted to side arms, said arms carrying a transverse corrugated rubbing-board in such a manner that when motion is given to the arms or handles of the rubbing-boards the same will have a free pendulous motion over the entire surface of the rollers constituting the washing-board, the axle or bearing of the swinging rubbing-board being constantly subjected to the action of a spring arranged in a slot formed in the standards of the washing-machine, so as to cause the swinging rubbing-board to uniformly and gently press upon the material to be washed.

To more fully understand the nature, construc-

tion, and operation of this washing-machine, it will now be fully set forth in detail.

In the drawing hereto annexed, A A designate the side frames, connected together and braced by the cross-bars *a a*, fitted to each other by mortises and screws, or in any other suitable and convenient manner. The front ends of the side frames are cut down to form sharp points, as at B B, which are intended to rest upon the inside of the tub about where the staves and bottom of the same form a union. The rear part of the frames are cut away so as to form a recess, C C, and leave projections *b b* and beveled edges *c c*, the projections *b b* resting upon the top of the staves of the tub, while the beveled edges fit snugly the curvature of the staves upon the inside. Thus it will be seen the frames are firmly supported when placed in the tub, as in Fig. 1. These side frames are formed with a series of openings at or about equal distance apart, so as to receive and support loosely a series of rollers, D D, which, when secured in position, may form a curved washing or rubbing-board, said rollers being arranged so as to leave a small space between each, whereby they may rotate and not touch each other when in operation. E E are vertical standards, rigidly secured upon the side frames A A of the washing-board, and are connected and braced at the top by a cross-beam, F, having openings *e e*, for a purpose hereinafter to be mentioned. The standards E E are provided with slots G G, within which are guided the studs *f f*, provided with pins *g g*, around which is arranged a coiled or other spring, *h*. The studs *f f* move freely up and down in the slots G, and are formed with openings, so as to receive the axle or shaft H, and permit of its rising and falling, the reacting spring *h* governing the pressure of the swinging rubbing-board upon the material to be washed. The pins *g g* pass through and are guided in the openings *e e* of the bar F. Depending from the shaft H are loosely or rigidly secured the connecting-links or bars J J, which may be so secured upon the axle or shaft H as to revolve upon the same or cause the axle to revolve with them. These connecting-links are pivoted to the handles or levers K K, said handles or levers carrying a rigid transversely-corrugated rubbing-board, L, in such a manner that, through the medium of the axle and connecting-links, the

rubbing-board can be given a free swinging or pendulum motion over the entire face of the washing-board, as clearly shown in the drawing hereto annexed. The standards, at or about where the slots G are formed, may be braced with metal plates M, secured in place by bolts or screws.

It will thus be seen that when the machine is placed in a tub in an inclined position, in the manner of the ordinary wash-board, it will retain itself in a firm position; and when it is being used the clothes to be washed are drawn up over the surface of the rollers by the operator. When motion is imparted to the swinging rubbing-board the clothes will be fed backward and forward between the two rubbing-surfaces in a gentle and uniform manner, similar but superior to the ordinary and laborious hand process.

By the employment of the swinging board, supported on the loose axle and keeping the same constantly under the action of the springs, the said board is free to adjust itself and receive between each of the frictional surfaces either large or small material to be washed without

tearing and otherwise injuring the same. The machine as thus constructed can be used upon the ordinary washing-tubs, and, when not in use and removed from the tub, occupies but a small space in comparison to the washing-machines now constructed.

Should it at any time be desired to use only the roller washing-board for very light or delicate fabric the handles carrying the swinging rubbing-board can be turned up over and rest upon the top cross-beam, as shown in dotted lines, and thus be out of the way of the operator.

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

The side frames A A, rollers D, standards E E, slot G, stud *f*, spring *h*, axle H, connecting-links J J, handles K K, and corrugated rubbing-board L, all combined, arranged, and operating substantially as and for the purpose specified.

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Witnesses:

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