D. D. McINTYRE.
Washing-Machine.

No. 214,679. Patented April 22, 1879.

Fig. 1.

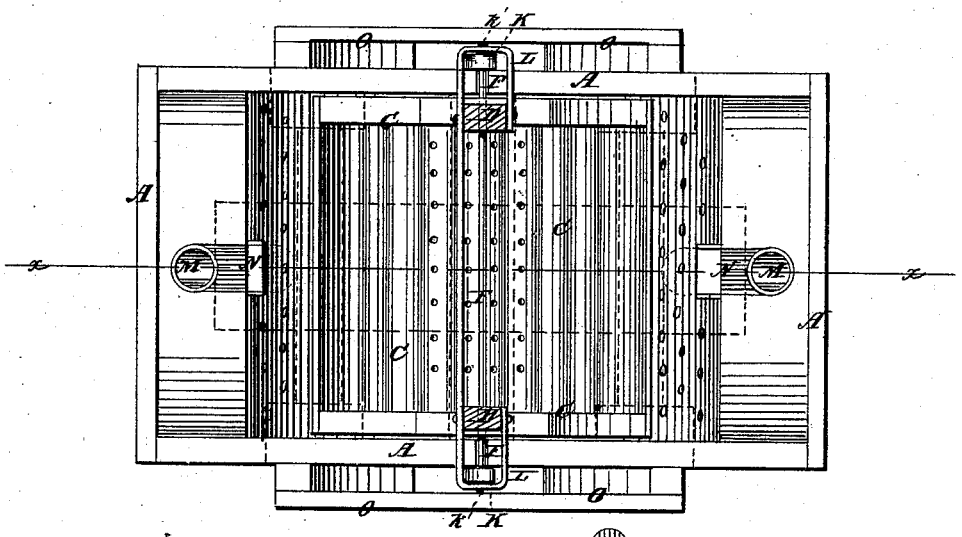
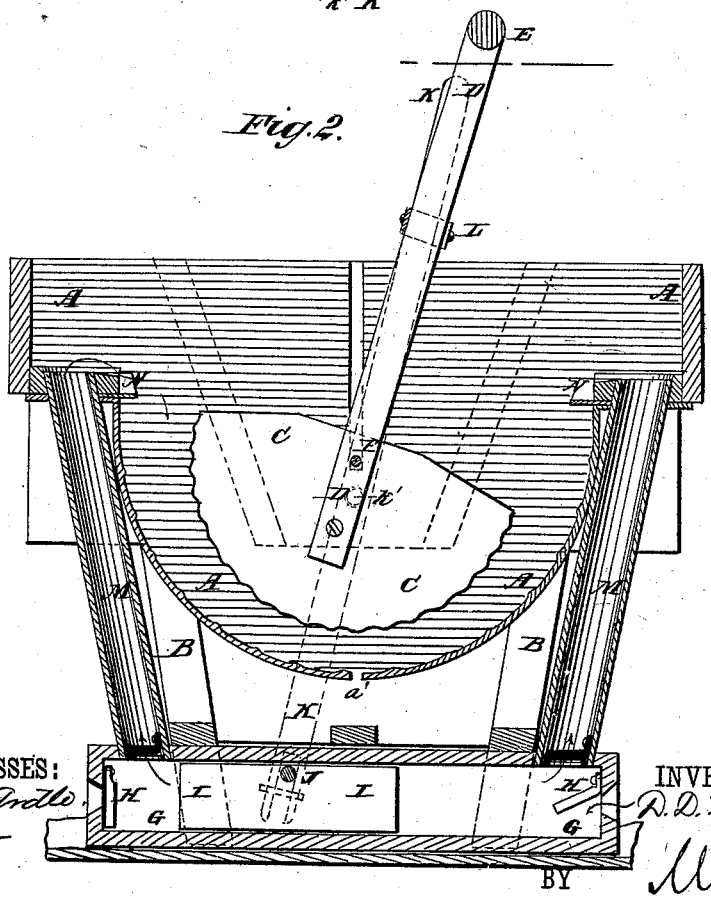


Fig. 2.



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UNITED STATES PATENT OFFICE.

DANIEL D. McINTYRE, OF STERLING, NEBRASKA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **214,679**, dated April 22, 1879; application filed February 20, 1879.

To all whom it may concern:

Be it known that I, DANIEL DUNCAN MCINTYRE, of Sterling, in the county of Johnson and State of Nebraska, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

Figure 1 is a top view of my improved machine. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for washing clothes which shall be simple in construction, convenient in use, and effective in operation, washing the clothes quickly and thoroughly, and without injuring them.

The invention consists in the combination of the suds-box, made semi-cylindrical and provided with a slot in its bottom, the rubber provided with perforations in its bottom, the levers, and the pivot-rod, with each other; in the combination of the pump-barrel, provided with the valve or valves and the pipes or pipes, the piston, the levers, and the loops, with the suds-box, the rubber, and its levers, as hereinafter fully described.

A represents the suds-box, which is made semi-cylindrical in form, and is supported by legs B, so arranged that the machine may be placed in an ordinary wash-tub. The inner surface of the semi-cylindrical bottom of the box A is corrugated, or has cleats attached to it, to form a rubbing-surface. In the lowest part of the bottom of the box A is formed a narrow slot, *a'*, to allow the water to flow from the said box down into the wash-tub.

C is the rubber, which is made semi-cylindrical in form, and has its outer surface corrugated or provided with cleats, to form a rubbing-surface. In the bottom of the rubber C are formed a number of small holes, to allow the water to sift through upon the clothes placed between the said rubber and the bottom of the box A, to wash out the dirt as soon as it has been loosened by rubbing. To the ends of the rubber C are attached the lower ends of the levers D, the upper ends of which are connected by a round, E, which serves as a handle in operating the machine. To the ends of the rubber C, and to the levers D, is attached rod F, the ends of which project into vertical slots in the sides of the box A, to serve as pivots for the said rubber, and to allow the rubber to adjust itself to the thickness of the clothes placed beneath it.

To the lower parts of the legs B is attached a pump-barrel, G, in the ends of which are formed valves H, opening inward, and in its middle part works a plunger or piston, I. To the middle part of the piston I is attached a rod, J, which passes out through slots or openings in the sides of the middle part of the barrel G, and to its end parts are pivoted the lower ends of the two levers K. The levers K pass up along the sides of the box A, and are pivoted to pivots *k'*, attached to guards O, attached to the sides of the box A, and which also cover and protect the said levers K.

The pivots *k'* should be adjustable, so that they may be moved up and down to regulate the stroke of the pump-piston I.

The upper ends of the levers K pass through loops L, attached to the levers D, so that the pump may be worked by the movement of the rubber C.

From the end parts of the pump-barrel G pipes M, provided with valves at their lower ends, lead up into the upper part of the box A, and discharge the water through spouts N into the cavity of the rubber C, so that it may sift out upon the clothes through the holes in the bottom of the said rubber.

The holes in the bottom of the rubber C should be of such a size that the water will not flow out through them quite so fast as it is pumped into the said rubber, so that the said rubber may be held down upon the clothes by the weight of the water contained in it.

The quantity of water in the rubber C may be increased or diminished by oscillating the said rubber faster or slower, and thus working the pumps faster or slower, or by adjusting the pivots *k'* of the pump-levers K.

With this construction the dirt washed from the clothes will settle in the bottom of the tub, and the water above it will be pumped back into the rubber C.

If desired, a single pump may be used instead of the double pump shown in the drawings. In this case the pump-barrel G may be

connected with a single pair of legs, B, and the other pair need not be placed in the tub.

The pipes M should be made detachable to give access to the valves, if desired.

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

1. The corrugated rubber C, provided with small openings in its bottom, in combination with the suds-box A, provided with a slot in its bottom, the pipes M, provided with spouts N, and the pump G, substantially as and for the purpose set forth.

2. The combination of the pump-barrel G, provided with the valve or valves H and the pipe or pipes M, the piston I, the levers K, and the loops L, with the suds-box A, the rubber C, and its levers D, substantially as herein shown and described.

DANIEL D. McINTYRE.

Witnesses:
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C. WOODLEY.