

UNITED STATES PATENT OFFICE.

DANIEL H. BOOR, OF TIPPECANOE, OHIO, ASSIGNOR OF ONE-HALF TO
L. W. HOUK, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 639,885, dated December 26, 1899.

Application filed January 23, 1899. Serial No. 703,134. (No model.)

To all whom it may concern:

Be it known that I, DANIEL H. BOOR, a citizen of the United States, residing at Tippecanoe, in the county of Harrison and State of Ohio, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates generally to washing-machines, and particularly to that class thereof known as "pounder" washing-machines, in which one or more pounders are reciprocated upon the clothes to be washed; and the object of my invention is to improve a device of this kind in which a plurality of pounders are reciprocated within the cylinders, thereby producing suction and pressure, whereby air and water are forced through the clothes, thus facilitating the cleansing operation.

With this object in view the invention consists in the peculiar construction of the various parts and in their novel combination and arrangement, all of which will be described hereinafter and pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a vertical longitudinal section of a machine constructed in accordance with my invention. Fig. 2 is a section on the line 2 2 of Fig. 1, and Fig. 3 is an inverted plan view.

In carrying out my invention I employ two cylinders A, which are arranged adjacent to each other and are connected at their upper and lower ends by means of plates B, said plates being connected by means of tubes C, through which the rods D pass, said rods having the nuts E screwed upon their lower ends and the nuts F upon the tops of the plates B, thereby securely connecting the rods D to the cylinders, which, it will be understood, are connected to each other by means of the plates B. The rods D are brought together, as at D', and are formed into a loop or handle D², by means of which the machine can be lifted and carried about as desired. The contracted portion D' is flattened, as shown in Figs. 1 and 2, and pivoted between the members is a lever G, said lever having a handle G' at one end, and pivotally connected to the lever, upon opposite sides of its pivotal connection, are the piston-rods H, which extend into the cylinders A and are connected to the dome-shaped

cups I, which snugly fit within the cylinders and are reciprocated therein as the lever is worked up and down. Within each of these cups or valves I is arranged a smaller concentric cup I', the top of which is also the top of the cup I, the purpose of this inner cup being to increase the suction as the piston is lifted and to increase the pressure as the said piston is lowered.

The pair of cylinders A is covered by means of an essentially oval-shaped cover K, having a depending flange K', which extends down to a point below the top of the cylinders, as most clearly shown in Figs. 1 and 2, said top having openings K², through which the piston-rods work, and it is also provided with openings K³, through which the rods D pass.

A machine constructed as herein described can be placed in any wash tub or boiler, and by reciprocating the pistons through the medium of the operating-lever air and water will be alternately forced through the clothes in opposite directions, thereby accomplishing the cleansing operation very quickly. The operating-lever can be adjusted as desired in order to increase or decrease the stroke of the piston through the medium of the transverse pin on which the lever G is fulcrumed and the perforations in the contracted portion of the rods D. By means of the handle D² the machine can be readily held down upon the clothes with one hand while the lever is being operated by the other.

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

In a machine of the kind described, the cylinders arranged adjacent to each other, the plates B connecting the cylinders and the rods D attached to said plates, a lever pivoted between the rods and having piston-rods connected thereto, said pistons extending into the cylinders and carrying the cup-shaped pistons at their lower ends, in combination with the sleeves and jam-nuts arranged on said rods, to hold the plates in the desired position, substantially as described.

DANIEL H. BOOR.

Witnesses:

MYERS WHARTON,
MAC CHANEY.