A. Dickson,

Washing Machine,

No. 18,633. Patented Nov. 17, 1857.

Fig. 1.

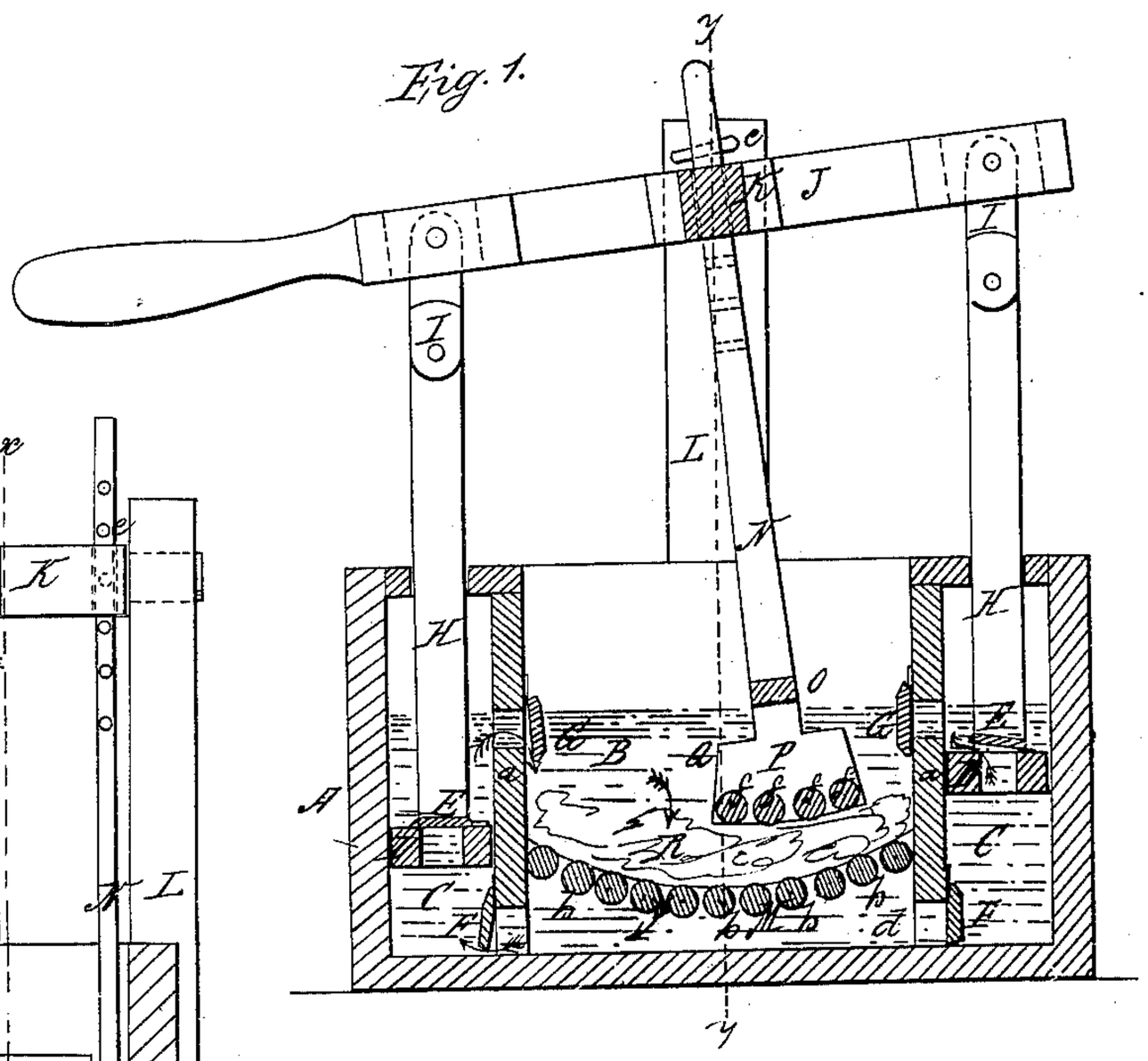
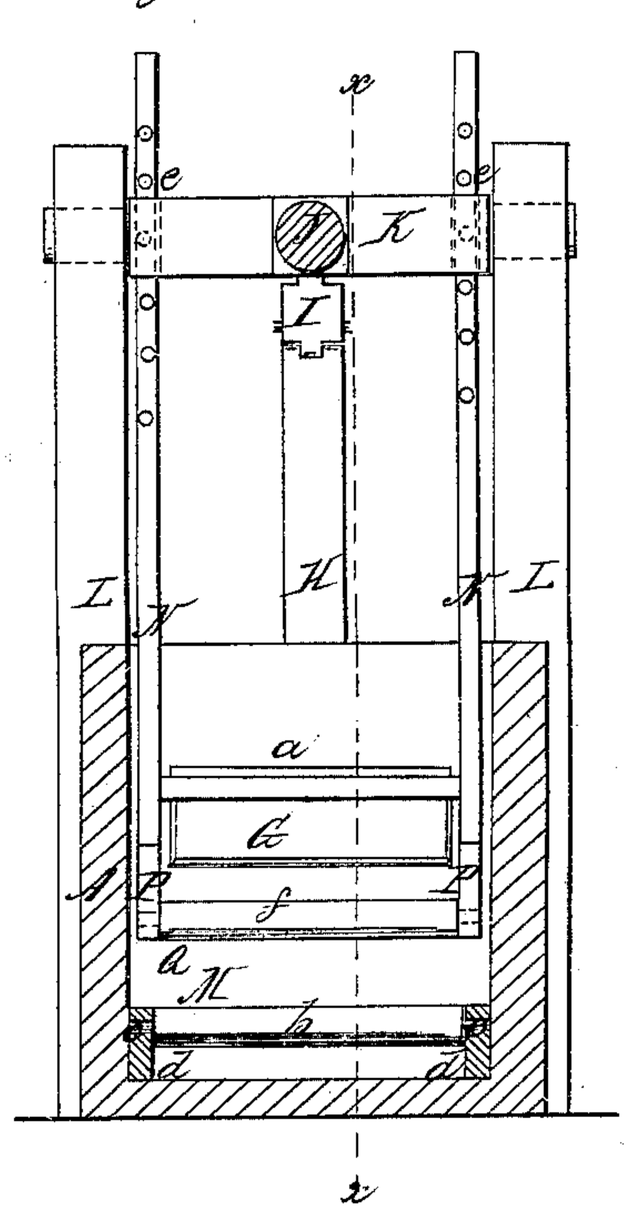


Fig. 2.



UNITED STATES PATENT OFFICE.

ALEXANDER DICKSON, OF HILLSBORO, NORTH CAROLINA.

WASHING-MACHINE.

Specification of Letters Patent No. 18,633, dated November 17, 1857.

To all whom it may concern:

Be it known that I, ALEXANDER DICKSON, of Hillsboro, in the county of Orange and State of North Carolina, have invented a new and Improved Clothes-Washing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of my improvement taken on the line (*x*) (*x*) Fig. 2. Fig. 2 is a transverse vertical section of ditto, taken in the line (*y*) (*y*) Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement in that class of clothes washing machines in which a reciprocating or oscillating rubber and stationary roller bed are employed.

The invention consists in using pumps in connection with the above named parts, arranged as hereinafter shown, whereby in addition to the usual friction to which the clothes are subjected the water is forced through them and the clothes thereby cleansed more thoroughly and expeditiously than usual.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a rectangular box in which two vertical partitions (*a*) (*a*) are placed forming three compartments, B, C, C, the central compartment B, being much the largest and forming the clothes chamber, the other two forming pump chambers.

Each chamber C, C, is provided with a piston D. These pistons are of rectangular form corresponding of course with the form of the chambers. Each piston D is provided with a valve E opening upward and at the lower end of each partition (*a*) a valve F is placed opening inward. A valve G is also placed near the upper part of each partition (*a*) said valves opening outward, see Fig. 1.

The pistons D, D, are attached each to a rod H, and the upper ends of these rods are connected by links I, I, to opposite ends of a lever J, the center of which is attached to a rock shaft K, placed between the upper ends of two uprights L, L.

Within the compartment B and near its lower part a stationary concave bed M is placed. This bed is formed of rollers (*b*) placed at a suitable distance apart, the journals (*c*) at the ends of the rollers being fitted within end pieces or strips (*d*) attached to the sides of the compartment.

To each end of the shaft K a pendent N is attached. The upper ends of these pendents pass through mortises in the shaft and have each a pin (*e*) passing through them to retain them in the shaft. To the lower ends of the pendents N, N, a cross-tie O, is attached and a plate or head P is attached to the lower end of each pendent, said plates or heads receiving the journals of rollers (*f*) which form a rubber designated by Q. The rollers (*f*) may be placed between the plates or heads P in concave form corresponding inversely with the form of the bed M.

The operation is as follows. The compartment B is supplied with the necessary amount of suds, or water having a requisite quantity of soap dissolved in it. The clothes R are placed on the concave M and the rubber Q allowed to rest upon them it being understood that the upper ends of the pendents N, are fitted loosely in the shaft K. The lever J, is moved up and down by hand and the shaft K is rocked thereby and an oscillating motion given the rubber Q, the clothes R are thereby subjected to the usual friction and as the rubber Q is operated the two pistons D, D, move in opposite directions, one piston ascending in its chamber C, as the other descends. As one piston ascends the water is drawn through the valve F at the lower end of its chamber C and the water in the chamber above the piston is forced through the valve G into the compartment B above the bed M, and a current of water is forced through the clothes as indicated by the arrows. As one piston ascends the other descends and the water that was drawn into its chamber during its upward movement is forced through its valve E into the upper part of its chamber to be forced through the valve G of its chamber during its ascent. Thus the two pistons work in opposite directions each alternately producing the current described which in passing through the clothes effectually dissolves the dirt and rinses it from the texture of the clothes.

I do not claim any of the parts when

viewed in the abstract for they are well known devices and have been used separately for similar and analogous purposes; but,

I claim as new and desire to secure by Letters Patent,

The combination of the oscillating rubber stationary bed and the pumps arranged to operate conjointly as and for the purpose set forth.

ALEX. DICKSON.

Witnesses:
W. N. PATTERSON,
E. F. WATSON.