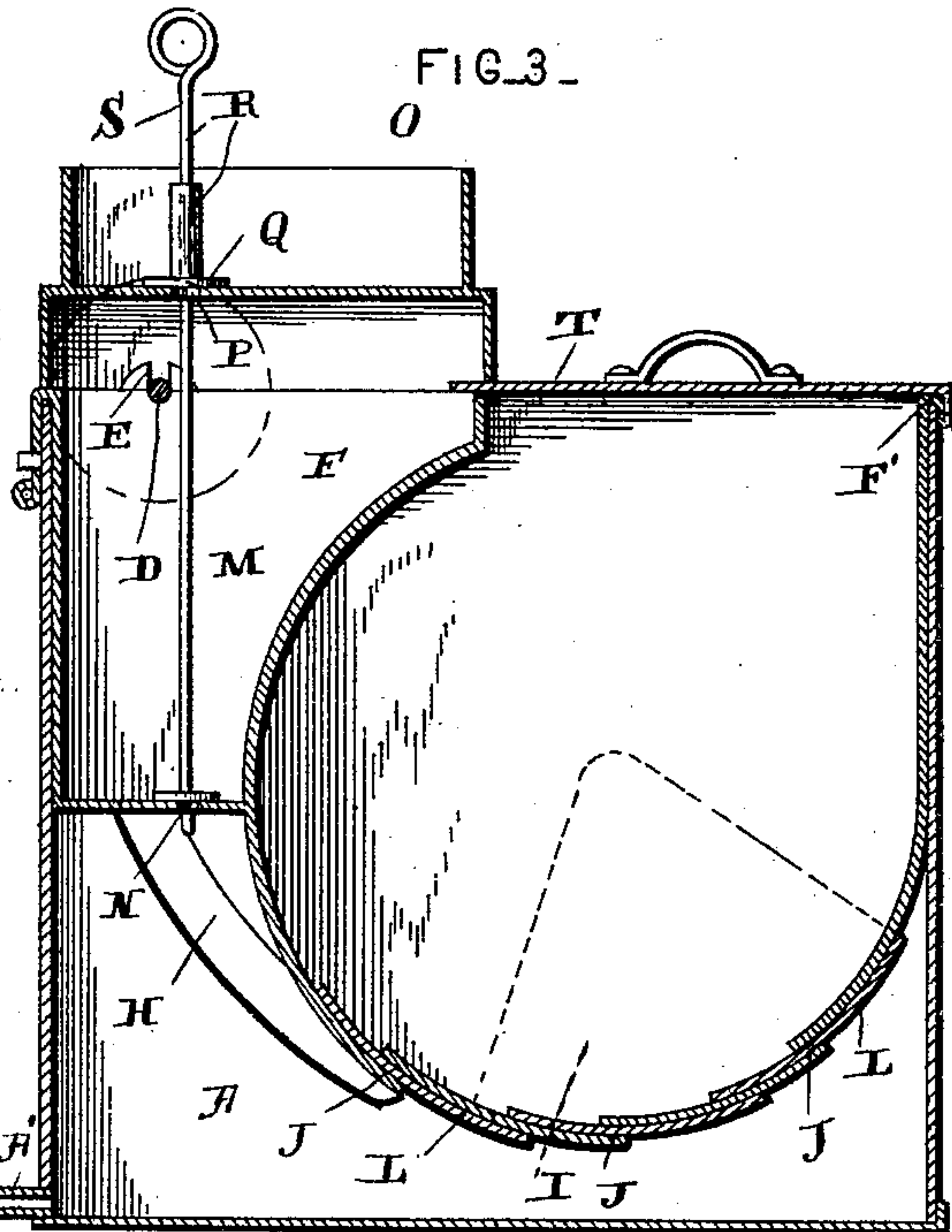


C. C. DAVIS.  
WASHING MACHINE.

Patented Sept. 13, 1892.



INVENTOR\_

Charles C. Davis

Per  
Lehmann & Pattison,  
attys.



# UNITED STATES PATENT OFFICE.

CHARLES CHRISTOPHER DAVIS, OF MERCER, SOUTH CAROLINA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 482,341, dated September 13, 1892.

Application filed October 28, 1891. Serial No. 410,085. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES CHRISTOPHER DAVIS, of Mercer, in the county of Union and State of South Carolina, have invented certain  
5 new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make  
10 and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in washing-machines; and it consists in certain  
15 novel features of construction and in the combination and arrangement of parts which will be fully described hereinafter, and more particularly referred to in the annexed claims.

The object of my invention is to construct  
20 a machine in which the clothes to be washed are subjected to the action of a series of reciprocating plates which engage the said clothes near their surface and cause them to rotate in the machine and so change their relative positions that all parts thereof are brought in contact with the agitators and cleansed.

Referring to the accompanying drawings, Figure 1 is a plan view of my improved machine. Fig. 2 is a side elevation, the outer  
30 tank being shown in section. Fig. 3 is a vertical sectional view on the line X X of Fig. 1.

A represents the outer shell or tank, having an outlet A' at its bottom, as shown. Journaled on the outer side of this tank is a crank-wheel B, which meshes with a pinion C, mounted on a shaft D, journaled across the top of the tank A and journaled in bearing E, formed on the upper edge of the tank A. Upon the outer end of this shaft is secured a  
40 balance-wheel D'. The inner frame F is supported within the tank A by means of the bent-over edges F', which engage the ends of the tank A. The forward or front edge F' is formed into a hasp, which engages a projection on the tank A, as shown, and prevents  
45 the inner frame from moving vertically, which movement would disengage the gear-wheels.

Formed upon the shaft D at the points where the said shaft crosses the space between  
50 the tank A and frame F are the cranks G, and connected to these cranks at their upper ends are the arms H, which are loosely con-

nected at their lower ends to the oscillating frame I. The rear portion of the frame F is inclosed to form substantially a cylinder, and  
55 formed in the lower surface of this cylindrical portion in step order are three or more slots or passages J, and the said passages may be made as deep or as great as desired.

Pivoted to trunnions formed on the outer  
60 side of the frame F is the oscillating frame I, which is adapted to move around the outer side of the cylindrical portion of the frame F, and secured thereto are a series of curved strikers or plates L, which reciprocate back and  
65 forth through the passages J and engage the under surface of the clothes contained in the frame, causing them to have a circular movement therein and so change their relative positions as to cause those near the center of the  
70 cylinder to be worked to the outer side and in contact with the said plates, thus thoroughly striking and cleansing all the articles contained in the machine. Three plates or  
75 strikers are here shown; but any number may be used that may be desired and they may be arranged any desired distance apart with reference to their relative position either vertically or laterally. When the plates L are in  
80 their extreme outward position, their edges are still within the slots J, so that there is no tendency to draw the articles of clothing out of the machine through the said slots.

The forward end of the frame F is formed into a tank M, which communicates by means  
85 of a valved opening N with the tank A, as shown in Fig. 3. Arranged over the tank M is a removable tank portion O, which communicates with the tank M by means of an opening P, which is closed by a valve Q, which  
90 turns on a projecting pipe-section R, secured in the bottom of the portion O. Extending down through this pipe is the rod S, and secured to the lower end thereof is a valve, by means of which the opening N is closed.  
95 These tanks are adapted to contain either hot or cold water for use in the tank A, and the same may be admitted therein at any time by means of the above-described valves, the valve in the tank M being very conveniently  
100 operated by the rod S. The rear portion of the machine is provided with a removable cover T, as shown.

This machine is equally effectual in either



washing or rinsing clothes, and the same may be very successfully blued by the same operation, so complete is the agitation of the clothes by the plates L.

5 Having thus described my invention, I claim—

1. In a washing-machine, the combination, with an outer tank and a removable receptacle adapted to fit within said tank and which  
10 is provided with a slotted apartment, of an oscillating frame within the tank, agitators on said frame which reciprocate in the slots of the said apartment, a crank-shaft journaled on the said receptacle, and arms connecting  
15 the said frame with the shaft, substantially as shown and described.

2. In a washing-machine, the combination, with an outer tank and cylindrical receptacle therein provided with a series of slots arranged  
20 in step order, of a frame pivoted to the centers of the receptacle sides, a series of curved

agitators on said frame arranged in step order and which reciprocate through said slots, and a means for operating the said frame, substantially as shown and described. 25

3. In a washing-machine, an outer tank, a cylindrical receptacle supported therein and provided with a series of slots arranged in step order, an oscillating frame pivoted to the  
30 outer side of the said receptacle, a series of agitators or plates adapted to reciprocate through the said openings, a crank-shaft, and arms connecting the said shaft and oscillating frame, the parts being combined to operate substantially as shown and described. 35

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES CHRISTOPHER DAVIS.

Witnesses:

J. A. PEARSON,

WILLIAM PHILLIPS.