

D. FULLER.
Washing-Machine.

No. 220,524.

Patented Oct. 14, 1879.

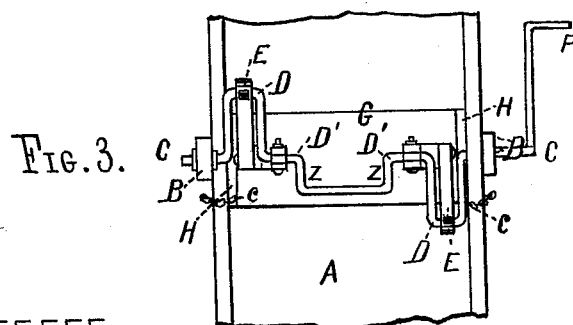
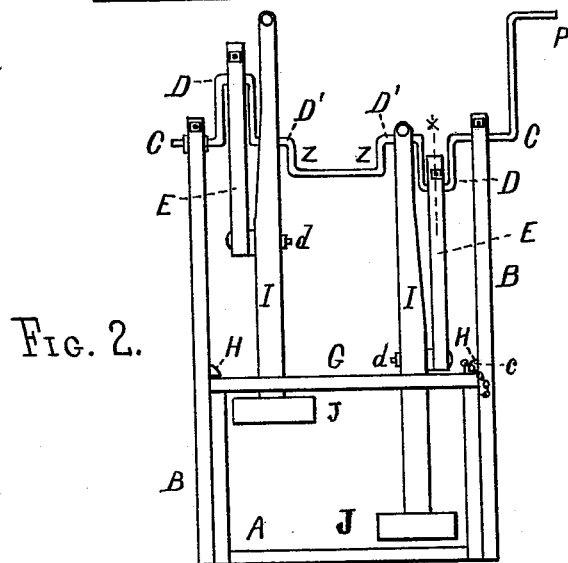
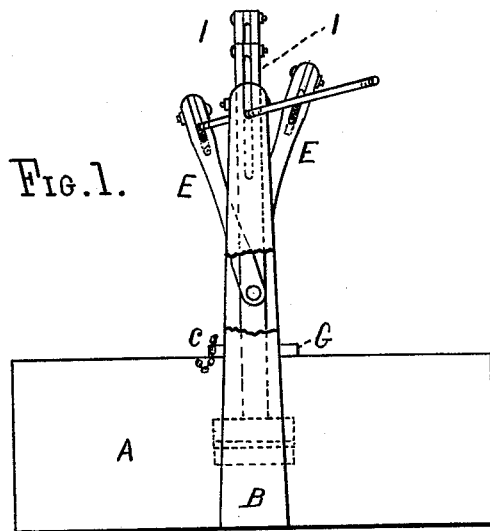
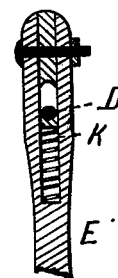


Fig. 4.



WITNESSES.

R. G. Moore
William R. Mendenhall

INVENTOR.

David Fuller
per *J. L. Chapin* Atty.

UNITED STATES PATENT OFFICE.

DAVID FULLER, OF FULLERSBURG, ASSIGNOR TO R. FULLER AND
RICHARD R. FOOTE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **220,524**, dated October 14, 1879; application filed
June 23, 1879.

To all whom it may concern:

Be it known that I, DAVID FULLER, of Fullersburg, county of Du Page, and State of Illinois, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings, illustrating the device.

The object of the present invention is to provide a washing-machine with vertical reciprocating pounders, to be operated in a box or wash-tub, the construction of which shall be cheap, durable, and efficient in removing dirt from clothes.

The nature of the invention consists in connecting-rods pivoted to the pounder-rods, and operated by a two-crank shaft, the latter being provided with two bearings on a line with its journals, to serve as guides for the upper and slotted ends of the pounder-rods, whereby the latter are kept in vertical positions by the aid of simple bearings attached to the tub or box in which the washing is done.

My improvement differs from the washing-machine patented to David Jennings on March 14, 1876, inasmuch as he uses a stationary guide-bar for directing vertically the movement of the pounder-rod, which guide-bar has a distinct function from that of the crank, and is no part thereof, whereas in my improvement the pounder-rods are guided by the same shaft, which gives to them a reciprocating vertical movement, thus greatly cheapening the cost of this kind of washing-machine, while its efficiency is retained.

It also differs from the washing-machine patented to T. Q. Frost, December 17, 1867, in that Frost's washing-machine has a stationary guide-bar to direct the movement of the pounder-rods, and uses a separate and distinct crank-shaft for operating the pounders, unlike my crank-shaft, which both operates and guides the pounder-rods.

In the drawings, Figure 1 is a side elevation of a washing-machine embodying my improvements with one standard broken away to show the parts more clearly. Fig. 2 is an end elevation thereof with the end of the wash-box removed. Fig. 3 is a broken plan view of Fig. 1; Fig. 4, a broken enlarged section of one of the connecting-rods with the recoil-spring and cap in position.

A is an ordinary water-tight box, in which the clothes to be washed are placed. To the sides of this box are attached vertical standards B, to form bearings for the shaft C to rotate in. This shaft is bent to form two cranks, D, which drive the connecting-rods E, and to form the guides D' D' on a line with the shaft C proper, and to form side guides, Z Z.

The pounder-rods I I are slotted out at their upper ends, so as to have vertical reciprocating movements in the guides D' D'.

The cranks D and the side guides, Z Z, prevent the connecting-rods from having too much lateral play.

The pounder-rods I I are fitted to have a free reciprocating movement in a guide, G, which, with the guides D', constructed as set forth, keep the pounder-rods in a vertical position.

The connecting-rods E E are pivoted to the pounder-rods I I at *d*, so that by turning the shaft C, by means of a crank, P, or other power, the pounders J J will alternately be brought down on the clothes in the box A.

The guide G is held in place between cleats H on standards B and the top of box A, pins *c* being put through the parts in the ordinary manner to keep the guide from sliding out edgewise.

I am aware that pounders (two or more) have been operated by mechanism to wash clothes by the pounding process. I therefore confine myself to the construction for holding the pounder-rods in a vertical position.

The clothes, in suitable thickness, are to be drawn lengthwise in the box as the dirt is removed.

I claim and desire to secure by Letters Patent—

The shaft C, bent to form cranks D and guides Z, in combination with connecting-rods E and slotted pounder-rods I I, guided by the parts D' of the shaft C and the guide G in a washing-machine, as and for the purpose set forth.

DAVID FULLER.

Witnesses:

JOHN S. COE,
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