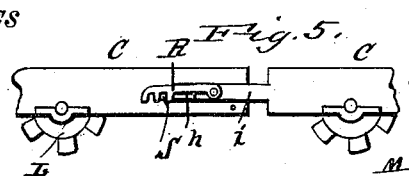
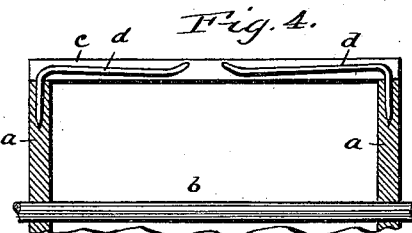
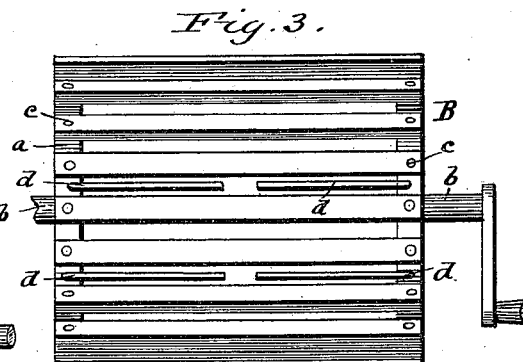
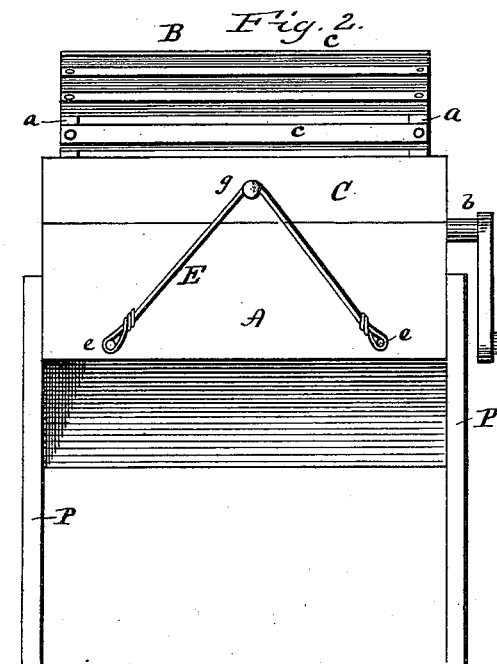
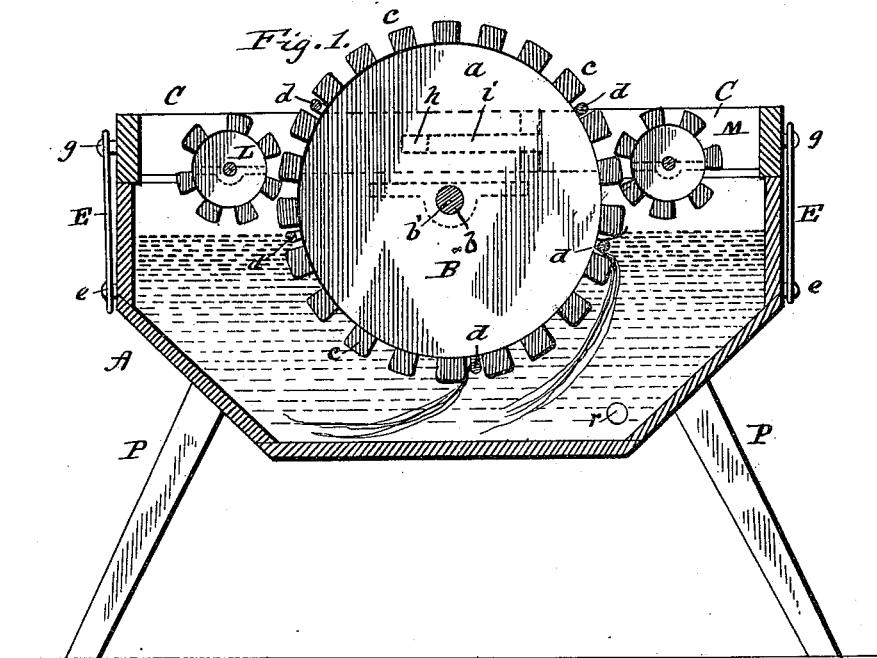


(No Model.)

J. F. WADE.
WASHING MACHINE.

No. 419,482.

Patented Jan. 14, 1890.



WITNESSES
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JAMES F. WADE, OF EFFINGHAM, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 419,482, dated January 14, 1890.

Application filed November 25, 1889. Serial No. 331,531. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. WADE, a citizen of the United States, residing at Effingham, in the county of Effingham and State of Illinois, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its objects to provide a washing-machine which will be cheap and durable in construction and which will rapidly and effectively remove the dirt from clothes of all descriptions, as more fully hereinafter explained.

15 In the accompanying drawings, forming part of this specification, Figure 1 represents a longitudinal vertical sectional view of a washing-machine constructed according to my invention. Fig. 2 represents an end elevation thereof. Fig. 3 represents a side elevation of the main roller of the machine detached. Fig. 4 represents a longitudinal sectional view of said roller; and Fig. 5 represents a side elevation of a frame which sets upon the top of the tub or water-receptacle of the machine and has journaled within it two smaller rollers, as more fully hereinafter set forth.

30 Referring to the drawings, the letter A indicates a rectangular tank, tub, or water-receptacle having its bottom inclined at its ends and constructed of any suitable material—preferably of wood, however. The tub or tank may be of any suitable dimensions, and midway between its ends on its top is provided with bearings *b'* for the journals of the cylinder or main roller B of the machine. The said cylinder or roller is constructed with 40 two heads *a*, mounted on the shaft *b* and secured thereto. The peripheries of the heads are connected by means of a series of longitudinal slats *c*, which are arranged at equidistant points, leaving spaces between them, for the purpose hereinafter explained. At suitable intervals within the spaces between the slats are located the springs *d*, which are secured to the heads in any convenient manner, being driven therein, preferably, 50 their ends being bent for the purpose, as in-

indicated in Fig. 4 of the drawings. The said springs extend toward each other and terminate at a point nearly midway between the heads, for the purpose hereinafter explained. One end of the shaft of the roller is provided with a crank by which it may be turned. 55

The letter C indicates a frame shaped to conform to the top of the tub or tank on which it sets, and is held by means of the cords or wires E, which are secured at their ends to the pins *e*, secured in the ends of the tub and passing over pins *g*, secured to the ends of said frame C. The said frame is preferably constructed in two parts, the sides of one of the parts being provided with 65 grooves *h* and the sides of the other part with tongues *i*, adapted to slide in the grooves, so as to render the frame extensible. The parts of the frame are provided with bearings for the journals of two small rollers L M, which 70 are or may be constructed with heads and slats similarly to the large roller.

The rollers L M are arranged one at each side of the cylinder or main roller in proximity thereto, as shown in Fig. 1 of the drawings, so as to rotate therewith as the clothes pass between said rollers L M and roller D. The tub or tank is mounted upon legs P, so as to bring it to a convenient height. 75

The operation of my invention is as follows: The clothes to be washed are slipped under or upon the springs *d*, by which they are suspended. The tub is then filled with water or suds and the roller D is rapidly rotated. It will be seen that the clothes will 85 be carried loosely through the water or suds, becoming saturated with the same, so as to dissolve the dirt, and are then squeezed between the rollers as the roller D revolves, pressing out the water and dissolved dirt, the operation continuing until the clothes are thoroughly cleansed. The frame may be then lifted off, the suds discharged through an opening *r*, and pure water run into the tub, after which the clothes may be thoroughly 95 rinsed by rotating the roller D. By making the frame extensible the rollers L M may be made to approach to a greater or less extent to the main roller D to adapt the machine to washing material of different thicknesses. 100

The parts of the frame are held in an adjusted position by means of a notched bar R, pivoted to one part and engaging a pin S on the other part of the frame. The connecting cords or
5 wires E, by which the frame is held to the top of the tub, will yield slightly, and thus accommodate the rollers to different thicknesses or inequalities in the material being washed.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with a tub and a slatted main roller journaled therein, of a removable
15 frame C, resting on the upper edge of the

said tub, slatted rollers L M, journaled on the said frame on opposite sides of the said main roller, springs on the said main roller between its slats to retain the clothes therein during operation, and means for lengthening or extending the said frame C to bring the rollers
20 L M closer to or farther away from the main roller, as and for the purposes described.

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

JAMES F. WADE.

Witnesses:

HENRY EVENMAN,
A. P. KOCH.