## J. T. VARNEY.

POUNDER WASHING MACHINE.

No. 370,834. Patented Oct. 4, 1887. Witnesses Toy hie Altorneys

## United States Patent Office.

JOSEPH T. VARNEY, OF SOUTH WAREHAM, MASSACHUSETTS, ASSIGNOR OF ONE-FOURTH TO EDGAR ROBINSON, OF SAME PLACE.

## POUNDER WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 370,834, dated October 4, 1887.

Application filed June 11, 1887. Serial No. 241,035. (No model.)

To all whom it may concern:

Be it known that I, Joseph T. Varney, a citizen of the United States, residing at South Wareham, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Pounder Washing-Machines, of which the following is a specification.

My invention relates to an improvement in washing-machines; and it consists in a certain novel construction and arrangement of parts for service, fully set forth hereinafter, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side view. 15 Fig. 2 is a central longitudinal section. Fig.

3 is a bottom plan view.

Referring by letter to the drawings, A designates the plunger, to the upper side of which is attached the handle B, and C C designate vertical openings in the said plunger on each side of the handle B.

D designates a cross-head or yoke having a vertical central opening, d, to receive and slide on the said handle B, and E E represent two vertical guide-rods secured at the upper ends to the ends of the cross-head D and enlarged at the lower ends. The said enlarged ends of the rods E are made cone-shaped, with the base of the said cones down to form flat ends to the rods.

F designates a spiral spring coiled around the handle B and bearing at the lower end against the upper side of the cross-head D, and G represents an adjustable collar secured on the said handle, against the under side of which the spring F bears. The said collar is provided with a set-screw, g, to enable it to be secured to any desired point of the handle to adjust the strength of the spring.

around the lower end of the handle on the upper side of the plunger, to serve as a stop for the said plunger against the under side of the cross-head. The under side of the plunger is provided with a number of corrugated pins, H, having rounded lower ends and two or more annular ribs, hh, encircling the same, one above the other, the said ribs

becoming larger toward the upper end of the pin. As these pins are pressed into the 50 clothes, they act thereupon in much the same manner as the corrugated surface of an ordinary wash-board on which the clothes are rubbed.

The operation of the device is as follows: 55 The lower conical ends of the guide-rods E are placed on the clothes in the tub and the handle is pressed down, thus pounding the said clothes with the pins. The upstroke is accomplished by the spring, thus relieving the 60 operator of that part of the work. If the spring is not strong enough to properly raise the plunger, it is only necessary to strengthen the same by altering the collar.

The device is very simple and will be found 65

very effective in operation.

Having thus described my invention, what I claim is—

1. In a washing-machine, the combination of the plunger, handle attached thereto, the 70 cross-head having a central opening to operate on the said handle, and the guide-rods secured to the under side of the said cross head and passing through openings in the said plunger, substantially as specified.

2. In a washing-machine, the combination of the plunger A, the pins H on the under side, the handle B, secured to the upper side, cross-head D, having a central opening to slide on the handle, adjustable collar G on the 80 said handle, spring F, coiled around the handle and bearing at the ends against the said collar and the cross-head, and the rods E, secured to the said cross-head and passing through vertical openings in the plunger, all 85 constructed and arranged substantially as and for the purpose set forth.

3. The herein-described washing-machine, comprising the plunger A, having openings C C therein, corrugated pins H on the lower 90 side of the said plunger, handle B, secured to the upper side thereof, washer or cushion e at the lower end of the said handle, cross-head D, having a central opening, d, to slide on the handle, vertical guide-rods E, having conical lower ends, the said rods being secured to

the cross-head and passing through the openings C C, adjustable collar G on the said handle, and the spiral spring coiled around the handle and bearing at the opposite ends 5 against the collar G and the cross-head D, all constructed and arranged substantially as specified. specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSEPH T. VARNEY.

Witnesses:

PETER MARSHALL,