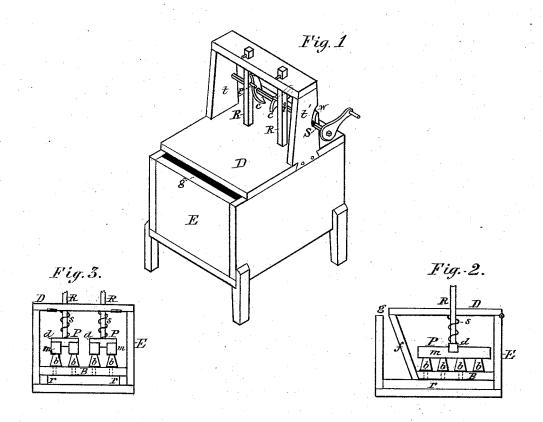
## A. B. WROTH. Washing-Machine.

No.165,969.

Patented July 27, 1875.



Witnesses; JW. Beaman L. Du Bois Inventor Afred B. Wroth By C. DuBois Attomy

## UNITED STATES PATENT OFFICE.

ALFRED B. WROTH, OF WINTERSET, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE A. ATKESON.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 165,969, dated July 27, 1875; application filed March 24, 1875.

To all whom it may concern:

Be it known that I, ALFRED B. WROTH, of Winterset, Madison county, Iowa, have invented a Washing-Machine, of which the following is a specification:

My invention relates to a series of verticallymoving beaters or plungers, operated by Sshaped cams placed upon a horizontal crankshaft, the whole being attached to the hinged cover of the suds-box.

In the accompanying drawings, Figure 1 is a perspective view of the whole machine. Fig. 2 is a side view, with the sides of the suds-box removed. Fig. 3 is an end view, with end of the suds-box removed.

c c are the **S**-shaped cams, so placed upon the crank-shaft S as to be in close proximity to the vertical shafts R R of the plungers P P, upon which are placed the projecting pins p p, so that during the rotation of the crank-shaft S the cams (being placed at right angles to each other) will alternately operate the plungers p p by raising them till the pins escape from the cams and allow the plungers to descend. To give still greater force to the downward stroke of the plungers I provide the coiled springs s s, placed around the vertical shafts R R, immediately beneath the cover D of the suds-box E. The plungers P P consist of the two pieces mm provided with the beaters b b, and placed near each other, and attached by the cross-pieces d d, which are dove-

tailed into each, and receives the upright shafts R R. The crank-shaft S is supported by the posts t t', dovetailed into the cover D of the suds-box, one end of the shaft being pivoted to the post t, and the other resting in the slot w, made in the post t', so that the crankshaft can be easily removed. The cover D being hinged at one end to the suds-box E, the crank-shaft, plunger, and all are raised up out of the suds-box when the cover is thrown back. The clothes to be washed are placed upon the perforated false bottom B, which, together with the slanting board f, rests upon the slats r r, placed upon the bottom of the suds-box. The cover D, being made a little shorter than the suds-box E, leaves the space at g for attaching the wringer.

What I claim as my invention, and desire to secure by Letters Patent, is—

The plungers P P, constructed of two pieces, m m, attached to the cross-pieces d d, and provided with the beaters b b, and having the vertical shafts R R, in combination with the perforated bottom B, resting on the slats r, the pins p p, and crank-shaft S, provided with the cams c c, all constructed to operate substantially as and for the purpose set forth.

ALFRED B. WROTH.

Witnesses:

E. D. SMITH, W. C. NEWLEN.