# B. I. WILLIAMS.

## WASHING-MACHINES.

No. 183,524. Patented Oct. 24, 1876.

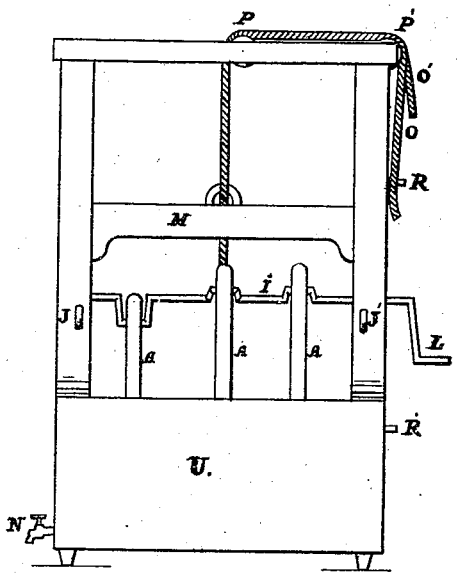


fig. 1.

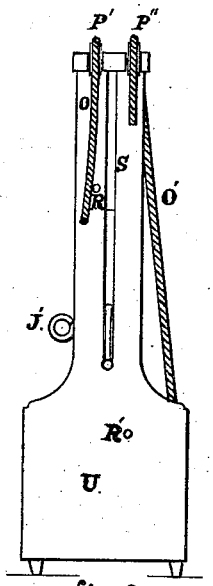


fig. 2.

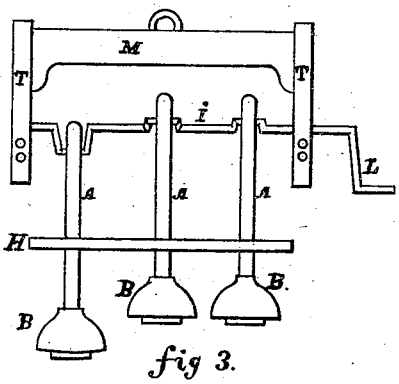


fig 3.

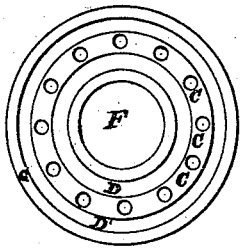


fig 4.

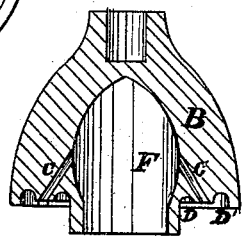


fig. 5.

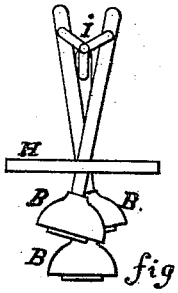


fig 6.

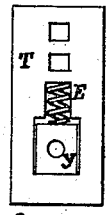


fig 7.

Witnesses
Seymour Hoskin
Eugene A. Woods

Inventor
Benjamin I. Williams

# UNITED STATES PATENT OFFICE.

BENJAMIN I. WILLIAMS, OF LANSING, MICHIGAN.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **183,524**, dated October 24, 1876; application filed February 21, 1876.

*To all whom it may concern:*

Be it known that I, BENJAMIN I. WILLIAMS, of Lansing, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to rapidly wash and cleanse clothing or other textile fabrics with little wear and tear.

Figure 1 is a side view. Fig. 2 is an end view. Fig. 3 is a detached part. Fig. 4 is a bottom view of beater B. Fig. 5 is a vertical sectional view. Fig. 6 is an end view of Fig. 3. Fig. 7 is an inside view of that part of the gate marked T, showing the box *y* for the shaft I to run in, and the spring E above the the box *y*, which is for the purpose of allowing the shaft I to give or raise with any undue pressure under the beaters.

In Fig. 1, U is the box or tub, with its faucet N for drawing out the water. M T T, Fig. 3, is the gate, which is so constructed that by drawing out the pins J J′ and pulling the cord O, all of that part of the machine shown in Fig. 3 will be drawn up out of the box U and out of the way, sliding in grooves made in the standards at each end of the machine. When so drawn up the cord O may be fastened on pin R; then, by pulling cord O′, which is fastened to one edge of cover H, and passing up over pulleys, the gate will be swung to one side, the cord being fastened to pin R′. L is the crank, by which the machine is worked in washing. J J′ are pins for fastening the gate and beaters down and in place when working, by passing through holes in the lower part of gate M T T. Figs. 3 and 6 show the vibrating motion of the beaters B and lever-power of pitmen A passing through the slots in cover H, which act as fulcrums for said lever-power, the object of which vibrating motion and lever-power is to cause tne clothes to move from one side of the box U to the other, and turn as they move, thereby exposing more surface to the direct action of the beaters B.

Fig. 4 shows the bottom face of the beater, with its air-chamber F, annular grooves D D′, and chutes or air-passages C C C from the chamber F out between the annular grooves D D′. The beaters, striking the water at an angle, forces the water into chamber F and chutes C C C, which are on the lower side, thereby forcing the air out from chamber F through chutes C C C, which are on the upper side, causes great commotion of the water, thereby cleansing the clothes more quickly.

I claim as my invention—

In a washing-machine, the cord and pulleys, with the sliding gate M T T, in combination with the crank I, pitmen A, cover H, and beaters B, having the chambers F and chutes C, as and for the purpose specified.

BENJAMIN I. WILLIAMS.

Witnesses:

SEYMOUR FOSTER,

EUGENE B. WOOD.