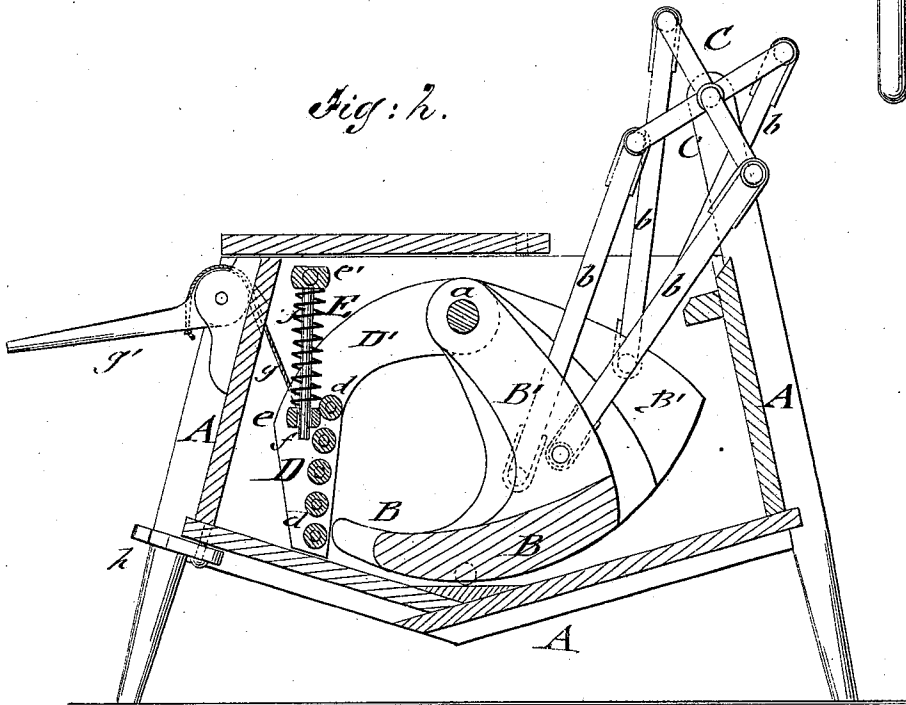
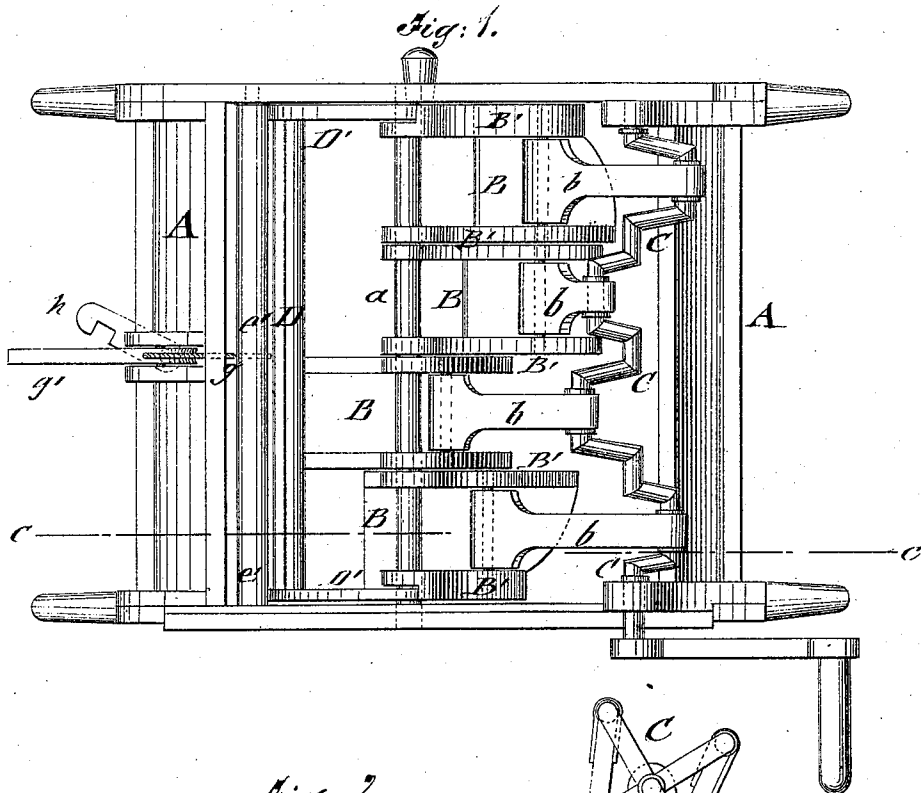


J. I. SHOTWELL.
 WASHING-MACHINE.

No. 170,311.

Patented Nov. 23, 1875.



WITNESSES:

Chas. Nida
 Alex. L. Roberts

INVENTOR
 J. I. Shotwell
 BY
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UNITED STATES PATENT OFFICE

JOHN I. SHOTWELL, OF WELLAND, CANADA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **170,311**, dated November 23, 1875; application filed October 29, 1875.

To all whom it may concern:

Be it known that I, JOHN I. SHOTWELL, of Welland, in the Province of Ontario and Dominion of Canada, have invented a new and Improved Washing-Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical longitudinal section of the same on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved washing-machine, by which a greater or smaller quantity of clothes may be easily and quickly washed, and the same be operated with considerable facility.

The invention consists of a washing-machine with alternately-working plungers, that are carried by a revolving crank-shaft against an adjustable spring-rack with rubbing-rollers.

In the drawing, A represents a tub of a washing-machine that is supported on strong legs, and carried by handles readily from place to place. A series of plungers, B, are pivoted to a lateral shaft, *a*, and operated by the pivot-rods *b*, connected to a crank-shaft, C, that is revolved by a hand-crank in suitable bearings of the tub A, so that the plungers are alternately moved forward along the bottom of the tub. The lower arc-shaped part of each plunger is suspended, by side arms B', from shaft *a*, and thrown with considerable force by the revolving crank-shaft against a rack, D, of rubbing-rollers *d*, that are mounted to side pieces D', which are hung in similar manner as the plunger-arms to shaft *a*, to swing backward and forward thereon. The rack D is acted upon by strong spiral or other springs E, which bear on a lateral brace-piece, *e*, of the rack, and a pivoted top piece, *e'*, of the tub, the springs being applied to swinging rods *f*, that slide in perforations of the brace-piece, to follow the changing motion of the rack.

The rack may be carried back into position against the wall of the tub by a string, *g*, which passes to the outside of the tub, and over a pivoted lever, *g'*, being fastened eccentrically thereto.

When the lever is carried down, and locked

by a pivoted hook, *h*, the rack is drawn back on the wall, so that a large space is formed between plungers and rack for putting in and taking out the clothes. When the clothes are put in the lever is released, and the crank-shaft revolved, which causes the alternating action of the plungers against the spring-rack. The joint operation of plungers and spring-rack produce a continual pressure and rubbing action on the clothes, which, together with the agitation of the suds, clean the clothes in a quick and satisfactory manner.

The plungers lap over each other when at the extreme points, and prevent thereby any wedging-in of the clothes between them.

The suds are drawn off through a bottom hole on removing the plug.

A hinged or pivoted top is placed on the tub during the working of the plungers, to prevent any spattering of the soap-water.

The spring-rack presses the clothes with considerable force against the plungers, so that the thorough cleaning of a greater or smaller number of clothes is produced, and thereby a very convenient and effective washing-machine furnished.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a washing-machine, a series of alternately-swinging plungers, operated by a revolving crank-shaft, in combination with a swinging and spring-acted roller-rack, substantially in the manner, and for the purpose set forth.

2. The combination of the swinging roller-rack, having lateral brace-piece, with the sliding rods and springs of a pivoted top piece of the tub, to produce constant spring-action on rack, substantially as specified.

3. The combination of the swinging spring-rack with a cord and outer pivot-lever and fastening-hook for locking the spring-rack to wall of tub, and facilitating the handling of the clothes in the same, substantially as shown and described.

JOHN I. SHOTWELL.

Witnesses:

J. HAMILTON INGERSOLL,
ERNEST O. BODWELL.