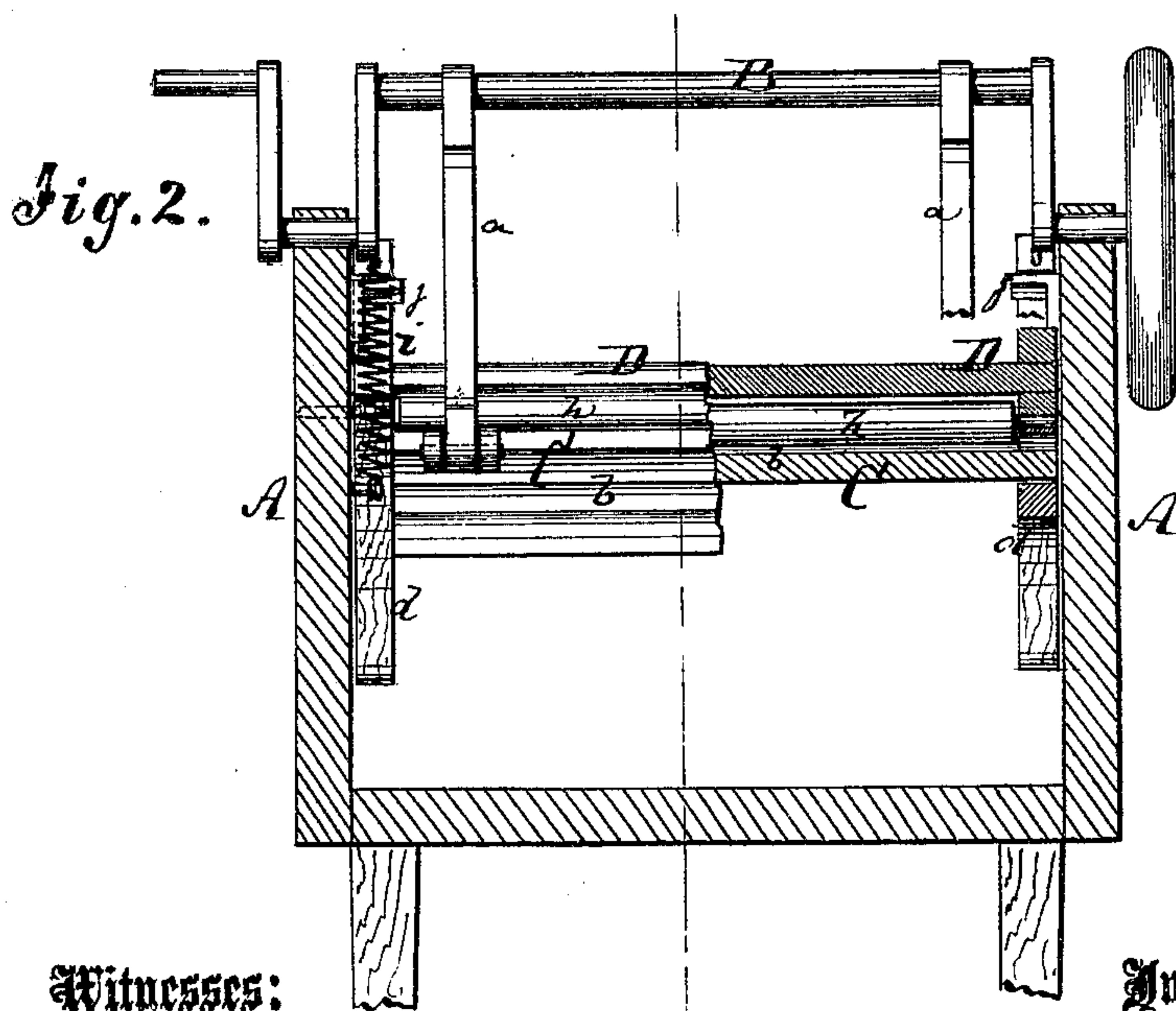
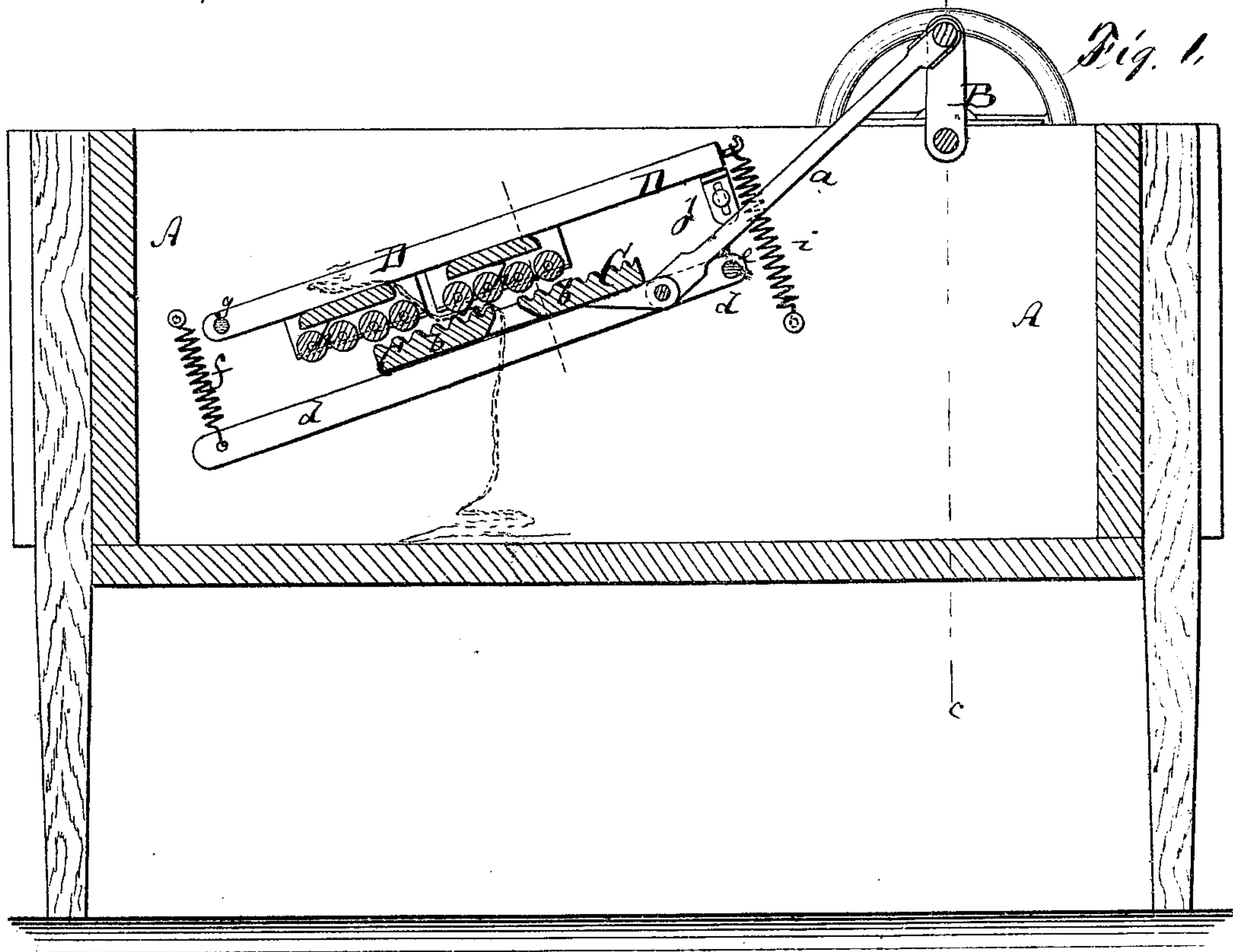


WILLIAM G. KNOWLES.
Improvement in Washing-Machines.
No. 126,463.

Patented May 7, 1872.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM G. KNOWLES, OF JAMESTOWN, RHODE ISLAND.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 126,463, dated May 7, 1872.

Specification describing a new and Improved Washing-Machine, invented by WILLIAM G. KNOWLES, of Jamestown, in the county of Newport and State of Rhode Island.

Figure 1 represents a vertical longitudinal section of my improved washing-machine. Fig. 2 is a vertical transverse section of the same on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new washing-machine in which a reciprocating slotted wash-board is arranged to move on spring-rails under and against friction-rollers that hang in a spring-frame, all as hereinafter more fully described.

A in the drawing represents the suds-box of the washing-machine. B is the operating crank-shaft hung in the upper part of the suds-box, near one end of same. Its cranks are, by means of rods *a a*, connected with a reciprocating frame, C, on which a slotted wash-board, *b*, is secured. The frame C rests on inclined rails *d d*, whose upper ends are pivoted at *e* to the sides of the suds-box, while their lower ends are suspended on springs *f*. Above the reciprocating frame C is pivoted, at *g*, to the sides of the suds-box a frame, D, in which a

series of rollers, *h h*, are hung, springs *i* drawing the frame D down on the wash-board. The articles to be cleaned are, through a space between two of the rollers *h*, interposed between the wash-board *b* and said rollers, and the crank-shaft next turned with suitable rapidity. This will cause the board to rub against the rollers *h* and to act on the goods in the manner necessary to effect the desired cleaning process. Adjustable stops *j j* on the inner sides of the suds-box serve to support the frame D and to prevent it from applying too much pressure on certain goods. The goods pass down through the slot in the wash-board into the suds, and are drawn through the washing apparatus by the friction exerted against the rollers by the reciprocating wash-boards.

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

The reciprocating frame C, carrying the slotted wash-board *b* and combined with the spring-rails *d d* and with the adjustable roller-frame D, substantially as herein shown and described.

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Witnesses:

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