(No Model.) 2 Sheets—Sheet 1.

A. J. SEYLER

WASHING MACHINE.

No. 457,223. Patented Aug. 4, 1891.

Fig. 1.

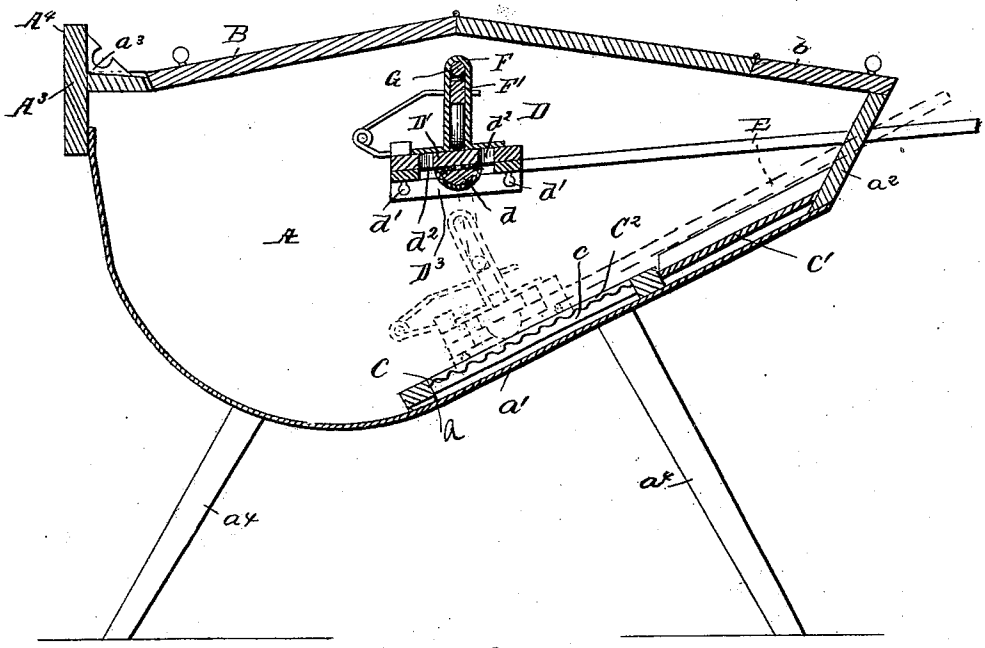
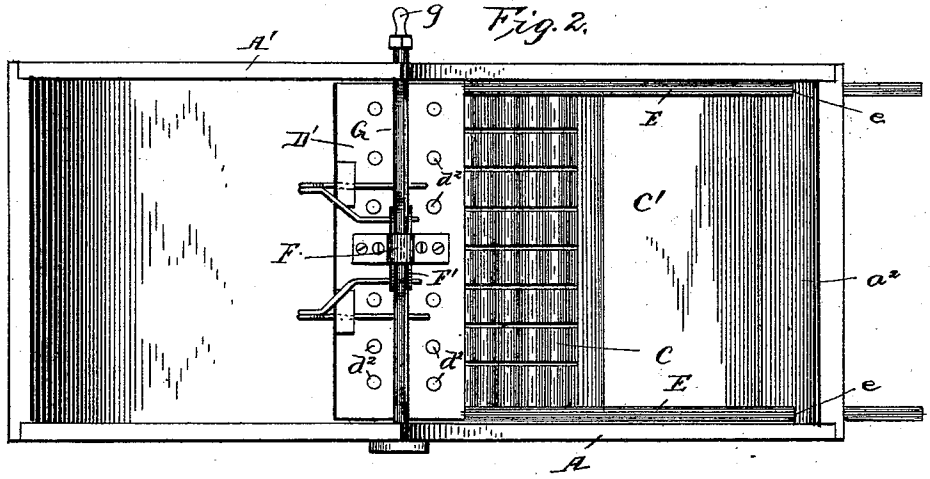


Fig. 2.



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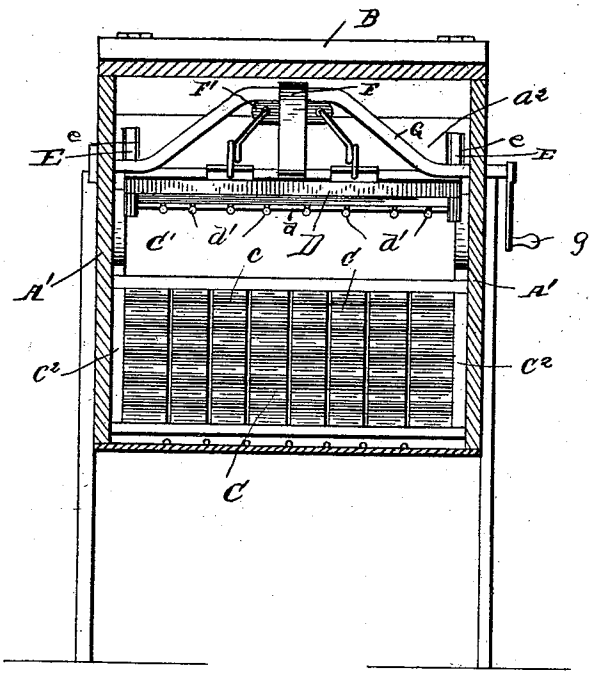
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Fig. 3.



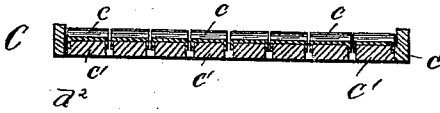


Fig. 4.

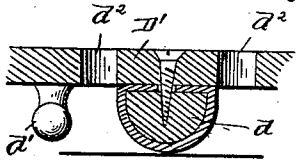


Fig. 6

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

ANDREW J. SEYLER, OF CEDARSVILLE, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 457,223, dated August 4, 1891.

Application filed March 31, 1891. Serial No. 387,106. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. SEYLER, of Cedarsville, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a central longitudinal sectional view of my improved washing-machine. Fig. 2 is a plan view thereof with the top removed. Fig. 3 is a transverse sectional view through the same. Fig. 4 is a detail transverse sectional view through the scrubbing-board. Fig. 5 is a detail enlarged view of the rubber and connected parts detached. Fig. 6 is a detail sectional view of the rubber.

This invention is an improvement in clothes-washing machines; and its object is to provide a machine wherein the articles may be rubbed as if by hand and without danger of tearing the same or breaking the buttons thereon; and it consists in the combination, with a rubbing-board, of a reciprocating and revoluble spring-cushioned scrubber of peculiar construction, and in certain other novel combinations and construction of parts, as will be hereinafter clearly described and claimed.

Referring to the drawings by letters, A designates the body of the machine, which is roughly oval-shaped in longitudinal section, having its enlarged end rounding from top to about center of bottom, as at *a*, and then its bottom inclines upwardly, as at *a'*, to an end piece a^2, as shown. The sides A' of the body are vertical and are highest at center, sloping to each end, and in its top are two doors B *b* near its opposite ends, as shown. The largest end of the body has an abutting or projecting portion A^3, from which rises a strip A^4, connected thereto by bracket-pieces a^3. The top of portion A^3 is recessed or sloped between the brackets, so as to direct water falling thereon into the body of the machine. Upon this part I mount the clothes-wringer. The body is supported in a horizontal position by legs a^4 or other suitable means.

C designates the scrubbing-board, which is fixed on part *a'* of the bottom and inclines, as shown, so that its head or drip-board C' is out of the water, so that when the clothes are brought to the high end of the board they are out of the water and cannot float away while the rubber is being raised from them and moved forward to bring another portion of the clothes on the board to be rubbed, as hereinafter described. The board is preferably composed of corrugated strips *c*, of zinc, the edges of which are turned down to prevent them from tearing the clothes, and each strip is fastened on a backing-strip *c'*, of wood, to give them strength. The strip is then nailed or otherwise secured to the bottom, leaving spaces between the strips for the water to pass through from the clothes as they are rubbed on the board. At each side of the board is a plain strip C^2, which serve as ways for supporting the rubber.

D designates the scrubber, lying transversely of and within the body above board C and composed of a back piece D', attached at its ends to the guide-rods E E, which project through guide-slots *e e* in the end pieces a^2 of the body, as shown.

d designates a rubber removably attached centrally and longitudinally to piece D', and which may consist of a semi-cylindrical strip covered with canvas.

d' d' designate a series of headed pins attached to and depending from the side edges of piece D', exterior to the rubber *d*. A series of perforations d^2 are made in piece D' between the rows of pins *d'* and rubber *d*.

D^3 D^3 are transverse pieces attached to the ends of the scrubber and bearing upon strips C^2, so as to uphold the scrubber and prevent it coming in contact with the surface of the board if no clothes be under it.

F designates a U-shaped metal loop or slotted bracket rising from and secured centrally to piece D', and F' is a block playing in said loop and upheld by opposite springs, preferably V-springs, as shown, attached to piece D'.

G designates a shaft journaled transversely and about centrally of the body in the sides thereof, and having its central portion cranked and passed through loop F, as shown. The block F' bears against said cranked por-

tion and keeps it in the upper end of the loop or slot normally, as indicated, but will yield to pressure.

g is a crank on the outer end of shaft G for operating the same.

The operation is as follows: The clothes are placed in the larger end of the machine through door B and the body properly filled with heated water. As the bottom may be made of metal, the water may be heated by lamp-stoves beneath the body. The crank is then turned over toward the larger end of the machine or from the operator. This raises and carries the scrubber forward on the clothes, drawing them down on the wash-board. When the scrubber descends on the clothes in the water, the water is forced through the openings therein and carries the clothes in between the rubber and pins, and the heads on the pins prevent the clothes slipping off while the rubber is being drawn back on the wash-board. The rubber being slightly lower than the pins, the clothes fall or gather between the rubber and pins, and are thereby squeezed at each movement of the scrubber on the wash-board, removing the dirt very nearly the same as is done by hand. The crank is then moved back and forth, which causes the scrubber to reciprocate over the board and rubs the clothes thereon. This operation is repeated until the clothes have all been carried to rear end of machine. Then the motion of the crank may be reversed, so that the clothes are carried back between the scrubber and board toward larger end of machine if it is desired to further scrub them without taking them out of the machine. In washing small articles or rubbing portions of articles, they may be placed on the board through door *b* and then the scrubber brought down thereon without having to scrub the entire piece to remove a spot. One or more pieces can be washed at a time. The pins or fingers are useful in drawing the articles down to the board, and the rubber takes the place of the palms of the hands. The pressure of the scrubber on the articles is regulated by the tension of the springs.

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

1. The combination of the body, a wash-board, and a scrubber, with springs for cushioning the pressure of the scrubber on the board, a crank-shaft for operating said scrubber, adapted to move the same once over the board and in close contact therewith and then lift the scrubber from the board and return it to first position during each revolution of the shaft, and rods and ways for guiding said scrubber, substantially as specified.

2. The combination of a body, a wash-board therein, a scrubber, and a crank-shaft for lifting and moving said scrubber in a rotary path during the rotation of the shaft, and springs for cushioning the pressure of the scrubber on the board, and sliding rods attached to the scrubber and adapted to guide it and prevent it turning with the shaft, substantially as set forth.

3. The combination of a body, a wash-board therein, a scrubber, the strips beside the board for upholding the scrubber, and a crank-shaft for lifting and moving said scrubber in a rotary path during the rotation of the shaft, and springs for cushioning the pressure of the scrubber on the board, and a guide-rod for the scrubber, attached to the side thereof, substantially as and for the purpose described.

4. The combination of the body, the wash-board therein, with the scrubber having a loop or slotted bracket, a cranked shaft having its crank playing through said loop or slot, and a movable spring-controlled block for holding the crank in the upper end of the loop and for cushioning the pressure of the scrubber on the board, and devices for guiding the scrubber in its movements, substantially as described.

5. The combination, with a wash-board, of a reciprocating scrubber having a central removable longitudinal rubber, parallel rows of perforations beside the rubber, and rows of pins or fingers at each side thereof and parallel therewith, as and for the purpose set forth.

6. The combination of the body and the wash-board therein, with the scrubber having a loop or slotted bracket, a cranked shaft having its crank playing through said loop or slot, and a movable spring-controlled block bearing against the crank, and guide-rods connected to said scrubber to prevent its turning on the crank, substantially as described.

7. The combination, with the body and wash-board, of the scrubber having a central rubber, rows of pins or fingers at each side thereof, and intermediate perforations, and means, substantially as described, for operating said scrubber, substantially as set forth.

8. The combination of the body and wash-board therein, constructed substantially as described, the scrubber having a central rubber, rows of pins or fingers at each side thereof, and an upstanding loop or bracket, with the cranked shaft passing through said loop, the spring-actuated block pressing against the crank for regulating the pressure of the scrubber on the board, and the guide-rods for controlling the movements of the scrubber in relation to the shaft, substantially as and for the purpose described.

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

ANDREW J. SEYLER.

Witnesses:
L. H. SMITH,
CYRUS RICHART.