

J. C. CRAWFORD.  
Washing-Machine.

No. 211,497.

Patented Jan. 21, 1879.

Fig. 1.

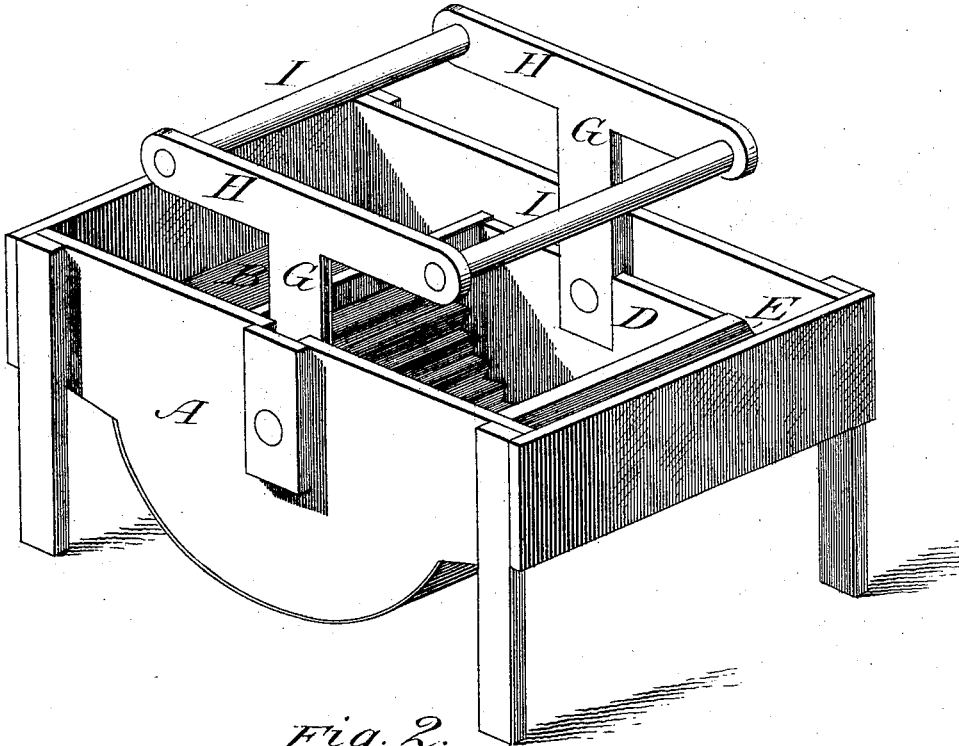
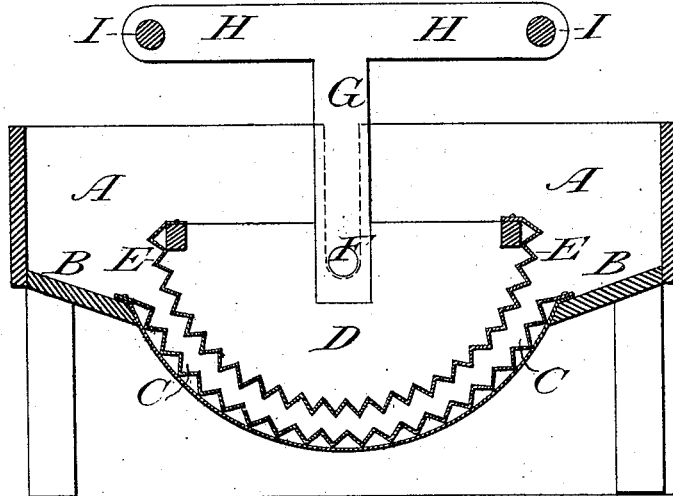


Fig. 2.



Attest:

S. T. Hanna  
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# UNITED STATES PATENT OFFICE.

JOHN C. CRAWFORD, OF DOUGLASS, IOWA.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **211,497**, dated January 21, 1879; application filed August 16, 1878.

*To all whom it may concern:*

Be it known that I, JOHN C. CRAWFORD, of Douglass, in the county of Fayette and State of Iowa, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification and accompanying drawing.

The invention relates to an improvement in the construction of a washing-machine; and consists of an oblong box with a portion of the bottom plane, and sloping downward at each end, and the central portion concave, with V-shaped parallel grooves running across it, formed either of wood or sheet metal, crimped similar to a common wash-board. A semi-cylindrical rubber, with its convex side grooved like the curved surface of the bottom, works in slots in the side of the box.

Referring to the drawings, Figure 1 represents a perspective view, and Fig. 2 a sectional longitudinal view through the center.

A is an oblong box supported on legs, having at each end, at B, a portion of the bottom inclined downward, and in the center curved and provided with V-shaped grooves C, formed of sheet metal or wood.

A semi-cylindrical rubber, D, having at each end a journal, F, which fits loosely in slots in the sides of the box A, has upon its convex surface V-shaped grooves similar to those on the bottom. Uprights G are attached to each end of the rubber D, and have arms H attached to them at right angles.

Between the ends of arms H rods I are attached, forming handles for working the machine, and giving a means of applying pressure while operating.

The clothes to be washed are placed between the concave bottom and the rubber, and by means of the handles the rubber is rocked to and fro, and at the same time it can be pressed down by the operator, if so desired.

The open spaces at each end of the machine allow the clothes at each motion of the rubber to become loosened up and soaked with water, and at the same time the inclination of said ends toward the center of the suds-box causes the clothes to continually move toward and under the rubber for its repeated action—an important and valuable feature of my invention.

What I claim is—

A washing-machine having the central portion of its bottom curved and provided with ribs C, and having the ends B of said bottom inclined toward its curved portion, in combination with a semi-cylindrical rubber having ribs E, uprights G, cross-bars H, and handles I, substantially as shown and described.

J. C. CRAWFORD.

Witnesses:

S. T. HANNA,  
FRANK McCLINTOCK.