(No Model.)

G. W. LIVINGSTON.

WASHING MACHINE.

No. 358,681. Patented Mar. 1, 1887.

Fig. 1.

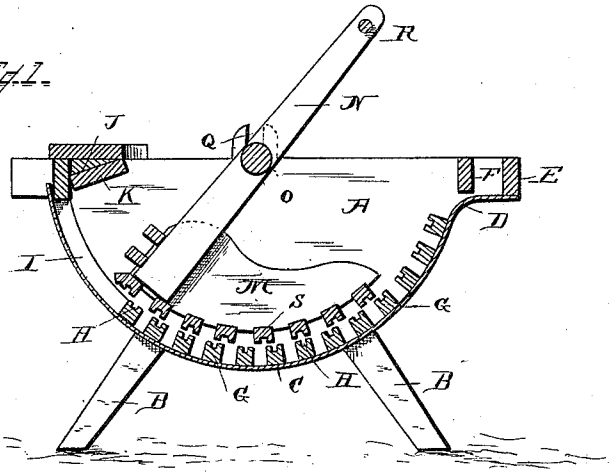


Fig. 2.

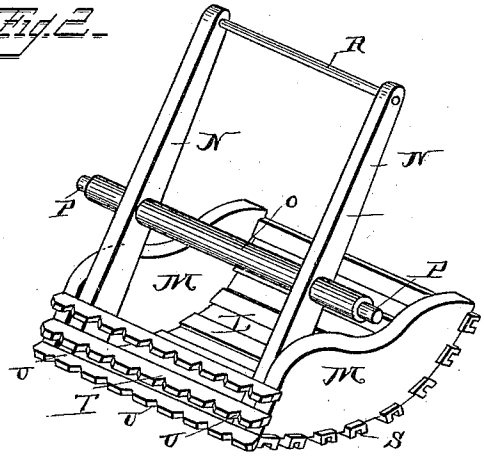
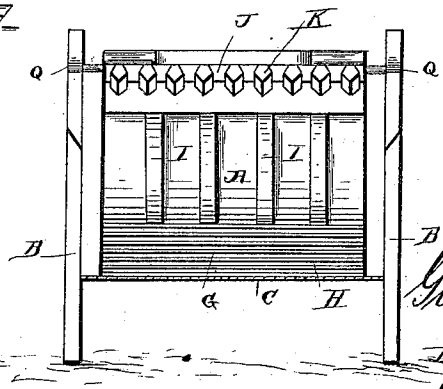


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE W. LIVINGSTON, OF NEW CORNER, INDIANA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 358,681, dated March 1, 1887.

Application filed August 7, 1886. Serial No. 210,283. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LIVINGSTON, a citizen of the United States, and a resident of New Corner, in the county of Delaware and State of Indiana, 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 of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal vertical sectional view of my improved washing-machine. Fig. 2 is a perspective view of the rubber, and Fig. 3 is a vertical transverse section of the suds-box

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of reciprocating-rubber washing-machines in which a round rubber is rocked or reciprocated in a rounded suds-box, the rubber and suds-box having transverse ribs; and it consists in the improved construction and combination of parts of such a washing-machine, in which the suds-box is provided with a downwardly-facing transverse board provided with ribs, against which a ribbed upwardly-facing squeezing board or surface upon the end of the rubber may work, so that the clothes in the suds-box may be worked to one end of the suds-box, and thereupon squeezed between the board of the suds-box and of the rubber, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the suds-box, which is mounted upon diverging legs B, and which is provided with the bottom C, forming a part of a cylinder, having, however, one end, D, curved out to form a resting place and receptacle for the soap, having an outer end piece, E, and an inner cross-piece, F.

The greater portion of the bottom of the suds-box from the outwardly-curved end to a distance from the other end is provided with a number of transverse ribs, G, having longitudinal grooves H in their upper faces, and the remaining end of the curved bottom is provided with curved longitudinal slats or ribs I, extending from the last transverse rib to the upper edge of the suds-box.

A board, J, is secured across the upper edges of the suds-box at that end of the same, and is provided upon its under side with a number of short longitudinal ribs, K, triangular in section.

The rubber L consists of the side pieces, M, having their lower edges segmental, and having two handle-bars, N N, secured radiating at one end of the side pieces, projecting obliquely toward the outwardly-bent end of the suds-box, and these handle-bars are united at their middles by means of a rock-shaft, O, having its projecting ends forming trunnions P P, which rest in bearings Q in the upper edges of the sides of the suds-box, and the upper ends of the handle-bars are united by the transverse handle R.

The curved lower edges of the side pieces of the rubber are provided with transverse longitudinally-grooved slats or strips S of the same shape as the cross-strips of the bottom of the suds-box, and the ends of the side pieces of the rubber where the handle-bars are secured are cut off straight and radial to the curves of the edges of the said side pieces, and transverse strips T are secured with their ends to the said edges, and have notches U in their upper faces. These notched transverse strips will be forced against the longitudinal strips upon the transverse board at the end of the suds-box when the rubber is reciprocated, and the clothes will be rubbed between the transverse strips of the bottom of the suds-box and of the rubber, whereupon they may be worked toward the end of the suds-box, and be squeezed between the transverse board at that end and the strips upon the end of the rubber, which will squeeze the soiled water out of the clothes, whereupon they may again be rubbed and squeezed until they are clean.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a reciprocating-rubber washing-machine, the combination of a suds-box having a curved bottom provided with transverse strips or

cleats, and having longitudinal cleats at one end and a transverse board at the upper edge of that end formed with downwardly-facing longitudinal strips, with a rubber having a round under side provided with transverse cleats, and provided at one end with a number of transverse notched strips working against the longitudinal strips upon the under side of the transverse board, as and for the purpose shown and set forth.

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

GEORGE W. LIVINGSTON.

Witnesses:
WILLIAM A. CLEMENS,
CORNELIS LINN.