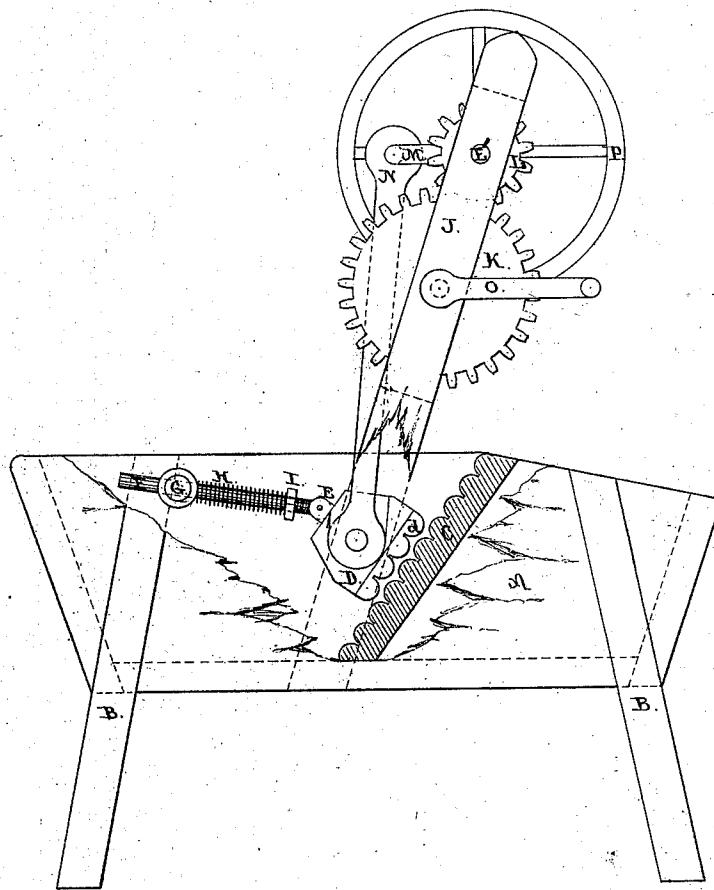


G. Lieb,

Washing Machine.

No. 107,793.

Patented Sept. 27, 1870.



William H. Brown

James Preham

Gottlob Lieb

Witnesses.

# United States Patent Office.

GOTTLOB LIEB, OF COEYMAN'S HOLLOW, NEW YORK.

Letters Patent No. 107,793, dated September 27, 1870.

## IMPROVEMENT IN WASHING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

I, GOTTLÖB LIEB, of Coeyman's Hollow, in the county of Albany and State of New York, have invented certain Improvements in Washing-Machines, of which the following is a specification.

The nature of my invention relates to the combination of a fixed wash-board and a movable scrubber, faced with India rubber, driven by means of cranks, and held in contact by a spring, whose pressure may be adjusted to suit the work to be done; the objects of my invention being to effect the cleansing of clothes, in a manner similar to the process of washing them by hand, on a common wash-board, with less expenditure of time and labor.

The accompanying drawing is a side elevation of my invention, a portion of one side of the tub being removed, to show more distinctly the parts of the machine contained therein.

### General Description.

A is the tub, supported by the legs B B.

C is a wash-board, with corrugated face, fixed permanently in an inclined position, as shown, near the middle of the tub.

D is the movable scrubber, having a corrugated India-rubber face, d, secured to it. Upon its back the jaw E is attached, for the purpose of receiving the end of the rod F, with which it forms a joint.

The shaft G oscillates upon its bearings, to allow the rod F, which passes through it, to follow the motions of the scrubber D.

The spring H is placed over the rod F, between the shaft G and nut I, and presses the scrubber D against the clothes on the wash-board C.

J is the upper framing of the machine, for supporting the pinion L, wheel K, and shaft L'.

M is one of the cranks (of which there are two) formed on the shaft L', for driving the scrubber D.

N is one of the rods for connecting the scrubber D with the cranks M.

O is the driving-crank for working the machine.

P is a fly-wheel on the end of the shaft L'.

The clothes are placed in the end of the machine,

under the wash-board, and the ends of each piece are inserted successively between the scrubber D and wash-board C. Upon turning the driving-crank O, a rapid motion is imparted to the shaft L, (by means of the wheel K and pinion L,) which, through its cranks M and the rods N, gives the scrubber D a reciprocating motion over the face of the wash-board C. The force of the downward stroke of the scrubber D being greater than that of its upward stroke, by reason of the inclination of the wash-board C, its tendency is to feed the clothes down the face of the wash-board. This should be resisted by the operator holding onto the clothes until the washing is effected, when, by releasing the hold, a new portion will be presented to the action of the scrubber D.

The function of the spring H is to hold the scrubber D against the clothes, with sufficient pressure to effectually cleanse them. Means are provided by the nut I to regulate the pressure given by the spring to the requirements of the character of the work to be done.

The India-rubber face d of the scrubber D has sufficient elasticity to avoid any danger of injury to the clothes, the object of its corrugations being to produce the effect of rubbing by hand upon the wash-board.

In the smaller machines the wheel K and pinion L may be dispensed with, and the driving-crank O fixed upon the end of the shaft L'.

### Claim.

I claim as my invention—

The arrangement and combination of the wash-board C, rubber D, connecting-stud E, rod F, spring H, adjusting-nut I, and shaft G, and box A, with the uprights, connecting-rods, shafts, and gears, to give motion, as shown, and described.

GOTTLÖB LIEB.

### Witnesses:

WILLIAM H. LOW,  
JAMES ORCHARD.