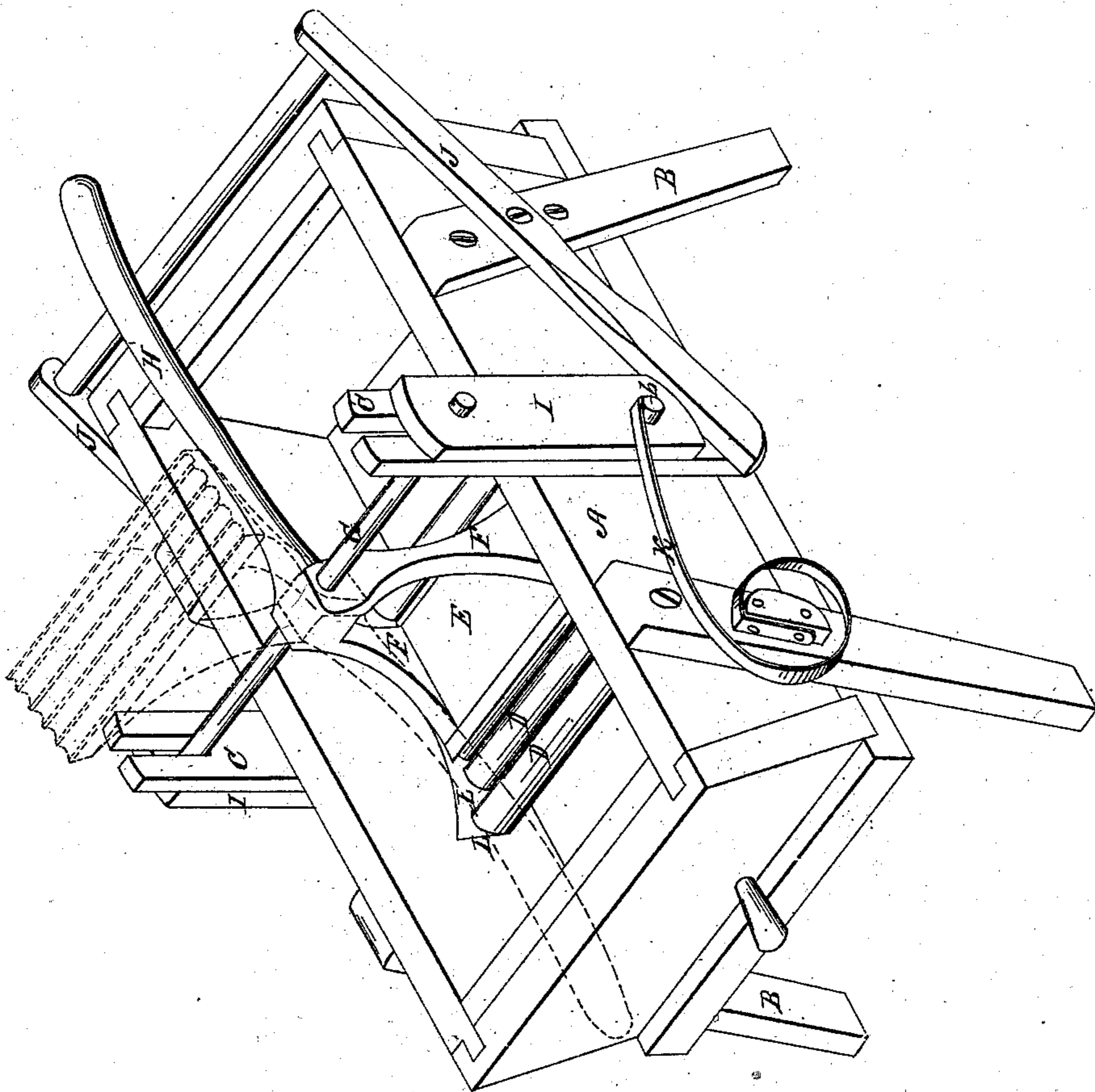


L. L. Miller,
Washing Machine,
N^o 32,342, Patented May 14, 1861.



Witnesses;
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UNITED STATES PATENT OFFICE.

LEWIS L. MILLER, OF JERSEY SHORE, PENNSYLVANIA.

WASHING-MACHINE.

Specification of Letters Patent No. 32,342, dated May 14, 1861.

To all whom it may concern:

Be it known that I, LEWIS L. MILLER, of Jersey Shore, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification and being a perspective view of my invention.

This invention relates to that class of machines which wash the clothes by subjecting them to the action, of a vibrating rubber working in conjunction with a concave composed of a series of rollers; and the invention consists in a certain construction and arrangement of parts, whereby the articles to be washed may be readily shifted in position without applying the hand thereto, or stopping the machine.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, represents an oblong box or tub, supported upon legs B. B, in the usual manner.

C, C, represent uprights attached to the sides of the tub about mid-way of its length and projecting upward some distance above the top. The upper portions of the said uprights are provided with vertical slots which prevent longitudinal motion of the rubber shaft, and allow it to move up and down to adapt the rubber to the quantity of clothes beneath it.

D, D, are rollers of a length corresponding with the width of the tub, and fitted in boxes in the inner sides thereof, so as to be capable of being revolved.

L, L, are boxes, composed of two metallic plates of segmental form having holes in them to receive the gudgeons of the rollers forming the concave. One of the said plates is divided lengthwise, and the lower half *c*, inserted in the side of the tub and flush with the surface thereof. The other is inserted in the opposite side of the tub in the same manner. The rollers then being put in place are secured by springing the upper half *c'* of the divided plate into the recess formed to receive it.

E, is a rubber corrugated on the underside (as seen in a reversed position of the

rubber shown in red lines) of which the rubber is attached near its outer ends. The opposite ends of the said arms converge and are rigidly attached to the shaft G.

H, is a handle attached to the shaft G, between the arms and at right angles thereto.

I, I, are slides fitted so as to have vertical movement on the outside of the uprights and in contact therewith. The upper ends of the said slides are provided with boxes in which the ends of the rubber shaft are journaled.

J, J, are levers connected together at their upper ends by a cross bar and fulcrumed about midway of their length to the legs or sides of the tub. The lower ends of the levers J, extend beyond the slides and serve to elevate and sustain them and through them the rubber in any desired position.

K, is a plate spring of convolute form attached at one end to the side of the leg or machine, and at the other end to a stud *b*, fixed in the side of the slide near its lower end.

Both sides of the machine are constructed precisely alike.

The office of the springs K, K, is to exert a pressure of the rubber on the clothes and at the same time give it a yielding motion.

When it is desired to use the machine the rubber is turned up out of the way so as to leave the tub free from obstructions. The clothes being then placed upon the concave, the rubber is raised by the left hand pressing upon the levers, and turned down when it is ready to commence operation.

An oscillating motion is imparted to the rubber through the hand lever.

By working the lever sustaining the rubber with one hand and the handle of the lever with the other, the articles of clothing can be made to change places with each other or turned over without being handled.

In washing garments of a fine texture the pressure of the rubber is diminished to any extent desired by simply pressing down the levers upon which it is sustained.

What I claim herein as new and desire to secure by Letters Patent is:—

1. The arrangement of the rubber E, handle H, slides I, studs *b*, volute springs K, and hand lever J. The whole being constructed combined and operated in the man-

ner and for the purpose herein shown and explained.

2. The combination and arrangement of the boxes L, L, rollers D, D, and tub A, 5 constructed and applied in the manner and for the purposes herein shown and explained.

The above specification of my improvement in washing machines, signed this twentieth day of March 1861.

LEWIS L. MILLER.

Witnesses:

JAMES H. GRIDLEY,
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