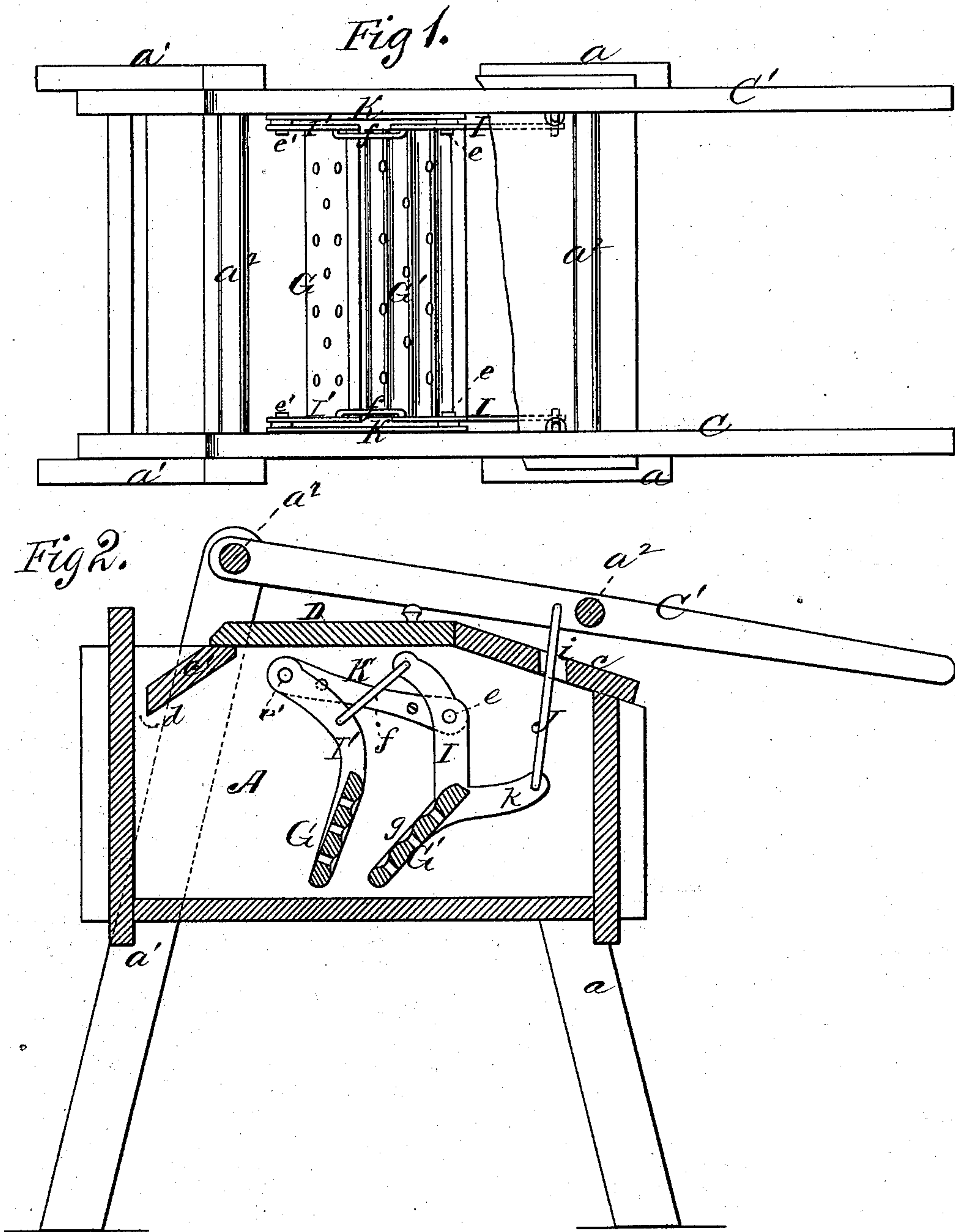


L. BECKER.  
Washing-Machine.

No. 209,447.

Patented Oct. 29, 1878.



WITNESSES

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# UNITED STATES PATENT OFFICE.

LEANDER BECKER, OF YORK, PENNSYLVANIA, ASSIGNOR TO C. LEWIS THOMAS AND J. LUTHER KRABER, OF SAME PLACE.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **209,447**, dated October 29, 1878; application filed March 13, 1878.

*To all whom it may concern:*

Be it known that I, LEANDER BECKER, of York, in the county of York and State of Pennsylvania, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a top view of my improved washing-machine, part being broken away to show the construction; and Fig. 2 is a longitudinal central section thereof.

This invention has relation to improvements in washing-machines having swinging rubbers approaching and receding with regard to each other; and it consists in the construction and novel arrangement of the front rubber-hangers pivoted at their upper ends, the rear hangers pivoted below their upper ends, and having rear extensions for connection with the operating-levers, and the rods connecting the upper ends of the rear hangers with the middle portions of the front hangers, whereby the rear hangers are made to serve as levers to operate the front hangers, as hereinafter fully shown and described.

In the accompanying drawings, the letter A designates an oblong suds-box of suitable material, mounted upon the legs  $a a^1$ , of which the latter extend above the top of the box, and serve as fulcrums for the manipulating handles or levers C C'. These are braced together by the rods  $a^2$ , and are designed to be worked simultaneously by a vertically-vibrating movement.

The box A is closed by the boards  $c c'$  and a detachable lid, D, the board  $c'$  being inside the sides of the box in an inclined position, and separated from the contiguous end thereof by a space,  $d$ . When a fresh supply of water is needed it is poured, without detaching the lid, into the funnel thus formed, and enters the box through the space  $d$ .

G G' represent longitudinally-corrugated perforated boards, suspended at a suitable distance apart inside of the box A by means of the rigid vertically-vibrating hangers I I', that

extend down the ends of the boards, and are secured thereto in any suitable manner.

The hangers I are irregularly L-shaped at their lower ends, and are pivoted about their middle portions at  $e$  to the sides of the box. Their lower ends are extended downward obliquely, as shown at  $g$ , for the attachment of the ends of the oblique rubber G'. Their upper ends are connected to the middle portions of the hangers I' by the connecting-rods  $f$ , in such a manner that the said rods do not prevent the boards G G' from vibrating. Therefore when the L-shaped hangers are vibrated by means of handles C C' they act also as levers to vibrate the front hangers, I', which serve to bring the clothes against the latter in an effective manner as the latter move forward in their inclined position, as shown. The rear extensions,  $k$ , of the lower ends of the L-shaped portion of the hangers I are connected by the rods J to the operating-handles C C' aforesaid, the said rods being carried through apertures  $i$  in the top board.

The pivots  $e e'$ , upon which the hangers I I' vibrate, are upon the ends of a metallic plate, K, secured to the sides of the box. This plate is designed to prevent the hangers from coming in contact with the sides of the box, and serves as a frictional surface therefor.

The box having been duly provided with soap and water, the handles are raised and the articles to be cleansed placed in the box between the boards G G'. The lid is then placed on and the handles vigorously worked. As the handles are thrust down, the boards aforesaid are brought together and the clothes vigorously rubbed, rolled over, and compressed between them, thereby removing the dirt, exposing fresh surfaces to the action of the said boards, and expressing the water from the clothes, thereby carrying off the softened and detached dirt or grease. The boards being perforated, the expressed water readily passes away from the clothes, and is replaced when the boards are separated by a fresh supply from other parts of the box.

I am aware that it is not new to apply vertically-swinging rubbers approximating and receding from each other in the suds-box, said rubbers being connected by bars to the oppo-

site ends of an equal-armed lever between them, and operated by a lever connected with one of the rubbers; hence I do not claim such, broadly.

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

In a washing-machine, the combination, with the rubbers G G' and operating-levers C C', of the hangers I', pivoted at their upper ends, and the L-shaped lever-hangers I, pivoted at their middle portions, connected at their upper ends by the rods f to the middle portion

of the hangers I', and having the rear extensions, k, for attachment to the connecting-rods of said operating-levers, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LEANDER BECKER.

Witnesses:

N. C. BAUGHMAN,  
C. L. THOMAS.