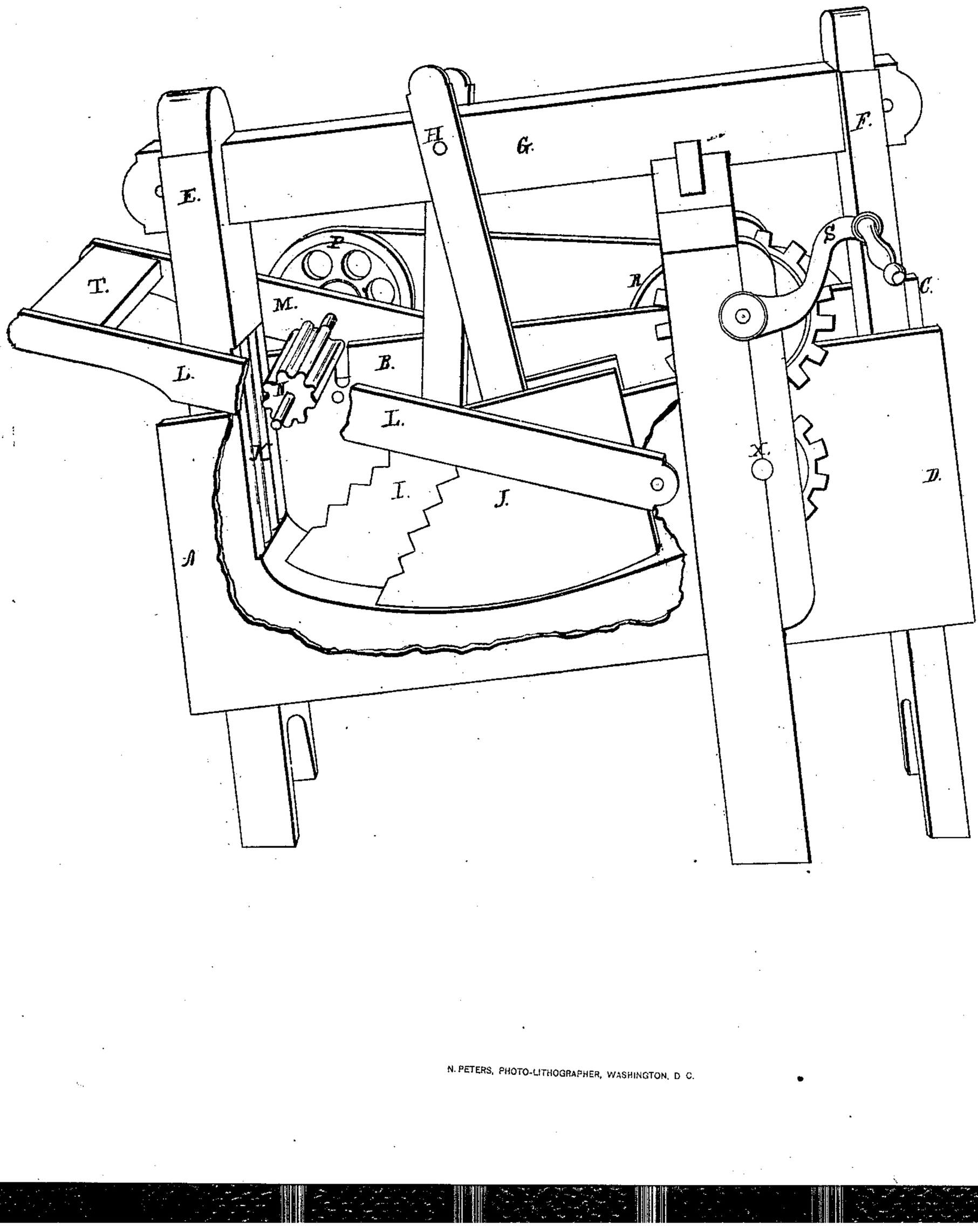
D. L. Walker,

Washing Machine,

No. 6,532, Patented June 19, 1849.



UNITED STATES PATENT OFFICE.

DANIEL L. WALKER, OF ROXBURY, NEW YORK.

WASHING-MACHINE.

Specification of Letters Patent No. 6,532, dated June 19, 1849.

To all whom it may concern:

Be it known that I, DANIEL L. WALKER, of Roxbury, Delaware county, and State of New York, have invented a new and useful Improvement in the Construction of Washing-Machines, which machine so improved I call "Walker's Improved Washing-Machine," of which the following specification, taken in connection with the drawings hereto attached and forming part of the same, forms a full and complete description.

I form the body of the machine by constructing a substantial wooden water tight box A B C D of a rectangular shape, for ordinary use, of the dimensions shown in the drawings, viz, five feet long one foot wide and two feet two inches deep, all in the clear. This box is supported in its proper position by the extension of the planks which form its ends E F below the bottom of the box, so as to form legs to the structure (or by any other suitable sort of legs or supports). These plank ends are also extended upward to form supports for the machinery of the apparatus. Upon them at the height of about three feet above the bottom of the box a bar of wood G of say 4 by 6 inches is supported. At the distance of about 18 inches from its front end or support a pin H passing through the bar, as a pivot supports two wooden levers terminating in pounders I, J, which ply at the bottom of the box, with just room for them to pass each other freely; their bottoms being shaped in the vertical curve described by the motion of a point in the said bottom, when the pounders are in motion. The front end of the said pounders are formed into a series of steps inscribed upon a line whose direction is an angle of 45 degrees with the axis of the levers. The number of these steps is not limited, but the number of six seems to be the best in practice.

That part of the bottom of the box over which the pounders ply, is shaped in a curve concentric with the bottom of the pounders and so near thereto that they will just pass conveniently clear of each other. Forward of that point to which the pounders reach in their extreme motion forward, the curve is rounded up till it meets the forward end of the box. This front end piece is shaped into, or has attached to it vertical flutings K extending upward a trifling distance above the top of the box, say 4 flutes or reeds with their intervals.

On the outside of the box, upon two pivots to be placed in a horizontal line with the crank shaft (to be hereafter described) and as near to it as can be conveniently done, there are suspended two wooden bars or arms L, M, projecting forward and beyond the front of the box where they are united by a cross piece, their dimensions to be regulated by the purposes for which they are used. This purpose is to support a horizontal cylinder or roller N 4 to 6 inches diameter and of sufficient length to enter the box and pass a short distance between its sides, to permit which operation—a slot O—is cut down a few inches, into each side, to permit the passage of that part of the rollers' axis that lies between it, and the supporting frame. Upon one end of the axis a band wheel P is fixed which is connected by a band with a similar wheel R placed on the end of the crank shaft. The size of these wheels and their proportions to each other to be regulated by experience. I propose the wheel —R— to be 24 inches and P to be 12 inches in diameter in a machine of the dimensions proposed herein. The movement of the roller is to be from its upper surface toward the front of the box.

In hand machines, the machine is operated by a spur and pinion wheels, the pinion being on the shaft X of a two-throw crank by which the pounders are vibrated a distance of about six inches. The box should be inclined with its forward end downward a few inches.

The practical operation of the machine is thus: The box being filled with soap and water—the roller is lifted up by its supporting levers, the articles to be washed are placed between it and the pounders, and the roller dropped upon them; the machine being put in motion by the winch S. The articles will be pressed forward against the fluted end of the box, under the roller, which by its movement, not only rubs the clothes well but assists the pounders in turning them over, exposing with every revolution of the machine, a change of surface to the fluid, without the friction which in ordinary machines is very destructive of the clothes subjected to their operation. It will be observed that the roller is free to vibrate up and down as greater or less

masses of material are forced under it by the pounders. Its pressure is regulated by a suitable weight applied at the cross piece T uniting the outer ends of the arms.

I do not limit myself to the materials, dimensions nor proportions set forth in these specifications and drawings of the machine in its various parts, but claim as my invention and desire to secure by Letters Patent—

The combination and arrangement of the front part of the box with its vertical flutings K and of the vibrating flutes roller N and pounders I, J for the purpose of turning the clothes as described and represented herein.

DANIEL L. WALKER.

Witnesses:
RICHD. VARICK DE WITT,
R. H. WATERMAN.