

J. C. BURGNER.
Washing-Machines.

No. 153,045.

Patented July 14, 1874.

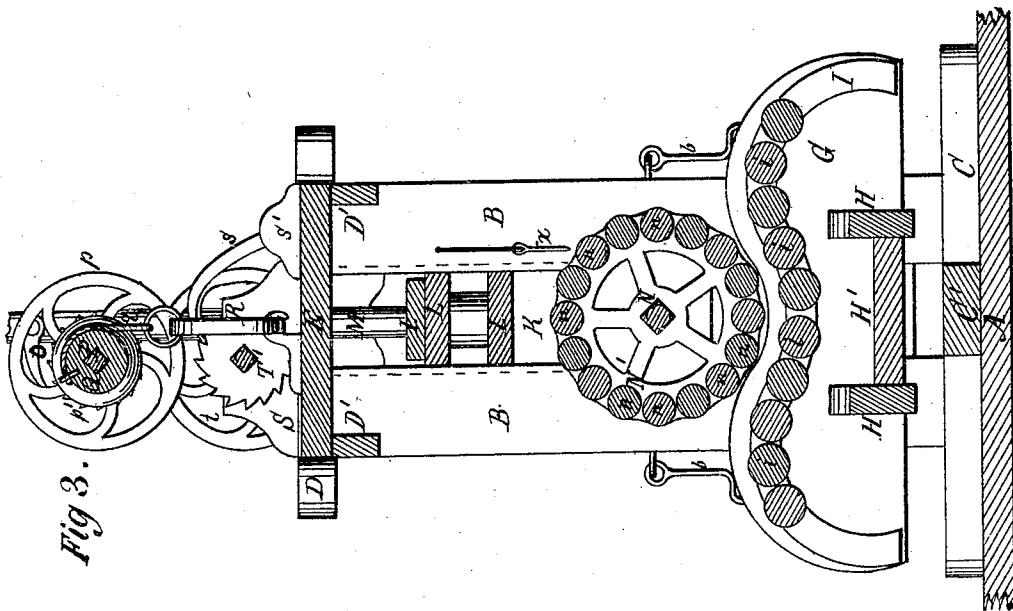


Fig 3.

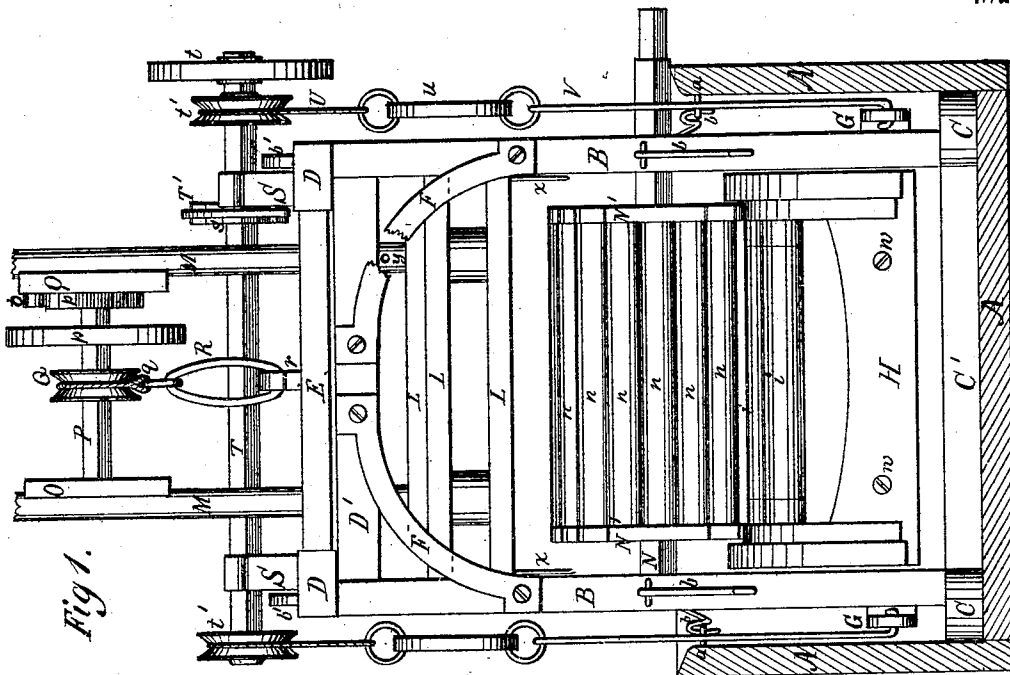


Fig 1.

WITNESSES.

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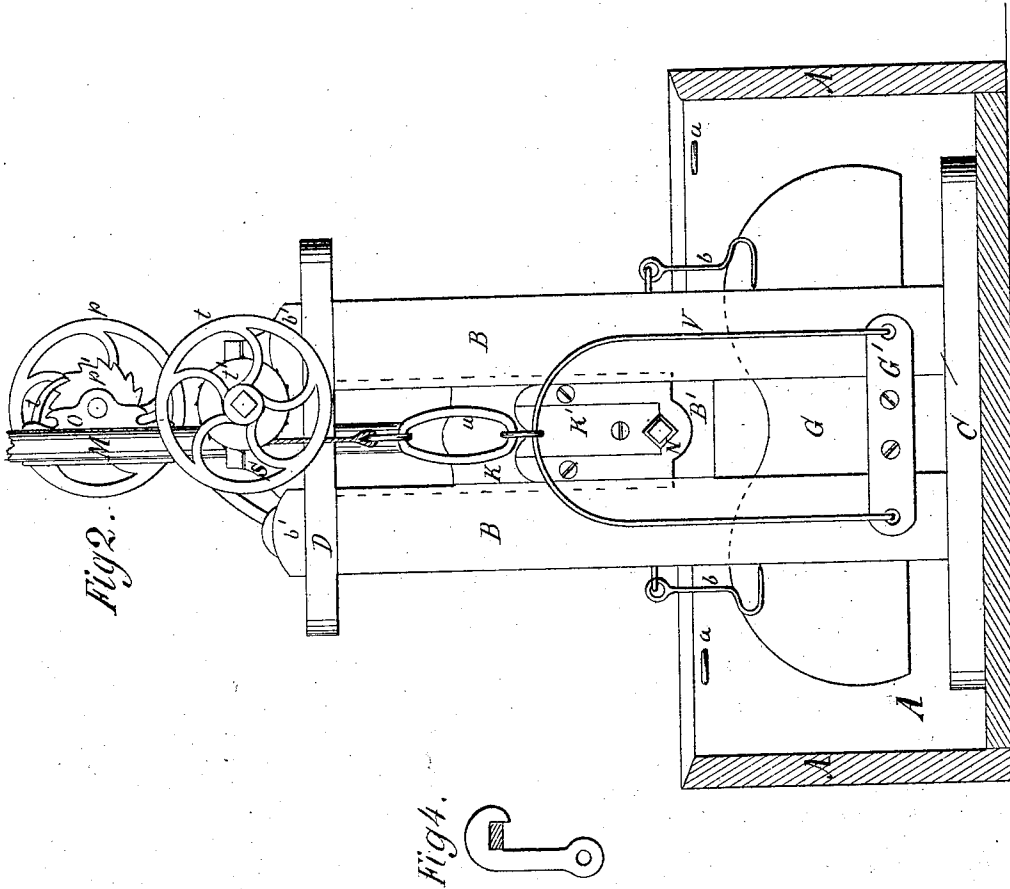
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UNITED STATES PATENT OFFICE.

JAMES C. BURGNER, OF POPLAR CREEK, MISSISSIPPI.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 153,045, dated July 14, 1874; application filed April 16, 1874.

To all whom it may concern:

Be it known that I, JAMES C. BURGNER, of Poplar Creek, in the county of Montgomery and in the State of Mississippi, have invented certain new and useful Improvements in Washing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My present invention consists in certain improvements upon the device patented to me in Letters Patent No. 138,128, dated April 22, 1873, as hereinafter more fully set forth.

The construction of my improved washing-machine is such that it may be easily taken apart and packed or put together again by almost anybody who understands the principles of a washing-machine.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a front view of my improved washing-machine. Fig. 2 is a side elevation. Fig. 3 is a vertical cross-section. Fig. 4 is a detailed view.

A represents a wash-box, with four eyes, *a*, fastened to its inner sides, to which the washing-machine is attached by means of hooks *b* on the four upright bars B of the machine-frame. The bars B are fastened to a foot composed of the horizontal bars C and the cross-bar C'. The top of the machine-frame consists of the bars D, the cross-bars D', and the platform E, and is secured to the posts B by two metal braces, F. The bars or posts B are reduced at both ends, inserted into the lower bars C and into the upper bars D, their reduced ends *b'* being allowed to project above the bars D. Between the bars B the frame, with the curved roller-plate, is so inserted that it may slide up and down. The said frame consists of two side plates, G, united by the cross-bars H and the plank H', which latter extends beyond the plates G, through the spaces between the posts B, where it is provided with a T-head, G', at each end. To each plate G a double-curved metallic bear-

ing-plate, I, is attached, which contains the bearings for the journal-caps *i'* of the rollers *i*. A cross-block, B', between the posts at each side of the machine, supports the frame of the roller-wheel. The said frame consists of the sliding blocks K, to which the journal-bearings K' of the said wheel are attached, and which, by means of side projections, are guided by vertical grooves *k* in the posts B. The blocks K are united by cross-bars L, to which the upright bars M are fastened, and which, passing through the top plank E, carry the traction machinery for the roller-wheel. The roller-wheel consists of a shaft, N, with two flanges, N', between which the rollers *n* revolve on journals with their bearings in the said flanges. The bars M are provided with journal-bearings O, which support the shaft P, to which a hand-wheel, *p*, a ratchet-wheel, *p'*, and pulley Q, with a cord, *q*, are attached. The pawl *o*, attached to the bearing O, serves to check the ratchet-wheel, when so desired. The cord is with its lower end tied to an india-rubber ring, R, which is held down by a hook, *r*, on the top plank E. Two bearings, S, on the top of the machine-frame, support the shaft T, which carries the hand-wheel *t*, the pulleys *t'*, and the ratchet-wheel T'. The pawl *s*, attached to the block *s'* on the plank E, serves as a check to the ratchet-wheel T'. The pulleys *t'* are provided with the cords U and the india-rubber rings *u*, and they serve to suspend the frame of the roller-plate by aid of two bails, V, which are hooked to the T-heads G' and fastened to the india-rubber rings *u*. To prevent the premature wearing or cutting of the india-rubber rings by their fastenings, I make use of a hook of the shape as shown in Fig. 4, instead of the said fastenings. When it is desirable to have the bearings of the roller-wheels rigid, I insert a pin, *x*, into the hole *y* in each of the bars M, thus stopping the upward yielding of the wheel-frame. By turning the hand-wheel *p* down the cord *q* is wound up on the pulley Q, the rubber ring R is stretched, and the wheel-frame with the roller-wheel forced downward. The same operation with the hand-wheel *t*, the pulleys *t'*, the cords U, and the rubber rings *u*, effects the raising of the lower roller-frame, which may be continued until the lower rol-

ers touch the roller-wheel. The roller-wheel is turned by aid of a crank slipped on the square head *n'* of the shaft N.

The machine may very easily be taken to pieces in the following manner: The hooks *b* are disengaged from the eyes *a*, and the machine is lifted out from the wash-box. The bails V are then unhooked from the heads G', and the braces F are unscrewed and removed. The shaft P, with its appendages, is next removed by unscrewing the bearings O from the shafts M. The top of the machine is then lifted from the posts B. The roller-wheel, with its frame, is then lifted out from between the said posts. The screws *w*, which hold the plank H' between the bars H, are now removed and the lower roller-frame is taken out. The plank H is now turned edge up and slipped out between the posts B. By detaching the bearings K of the shaft N the roller-wheel is disengaged from its frame. The posts B may now be slipped out from the foot of the main frame, and the machine is taken to pieces of

such size and shape that they may be easily carried or packed away.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the bed-frame and its rollers *i*, of the shaft T, provided with pulley *t'*, hand-wheel *t*, ratchet-wheel T', and pawl S, and the connections U *u* V, all constructed as and for the purposes set forth.

2. The combination, with the washing-roller N *n*, blocks K K', cross-bars L L, uprights M M, top plank E, and connections *q* R *r*, of the shaft P, hand-wheel *p*, ratchet *p'*, pawl *o*, and pulley Q, all as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of March, 1874.

JAS. COBB BURGNER.

Witnesses:

C. L. EVERT,

C. M. ALEXANDER.