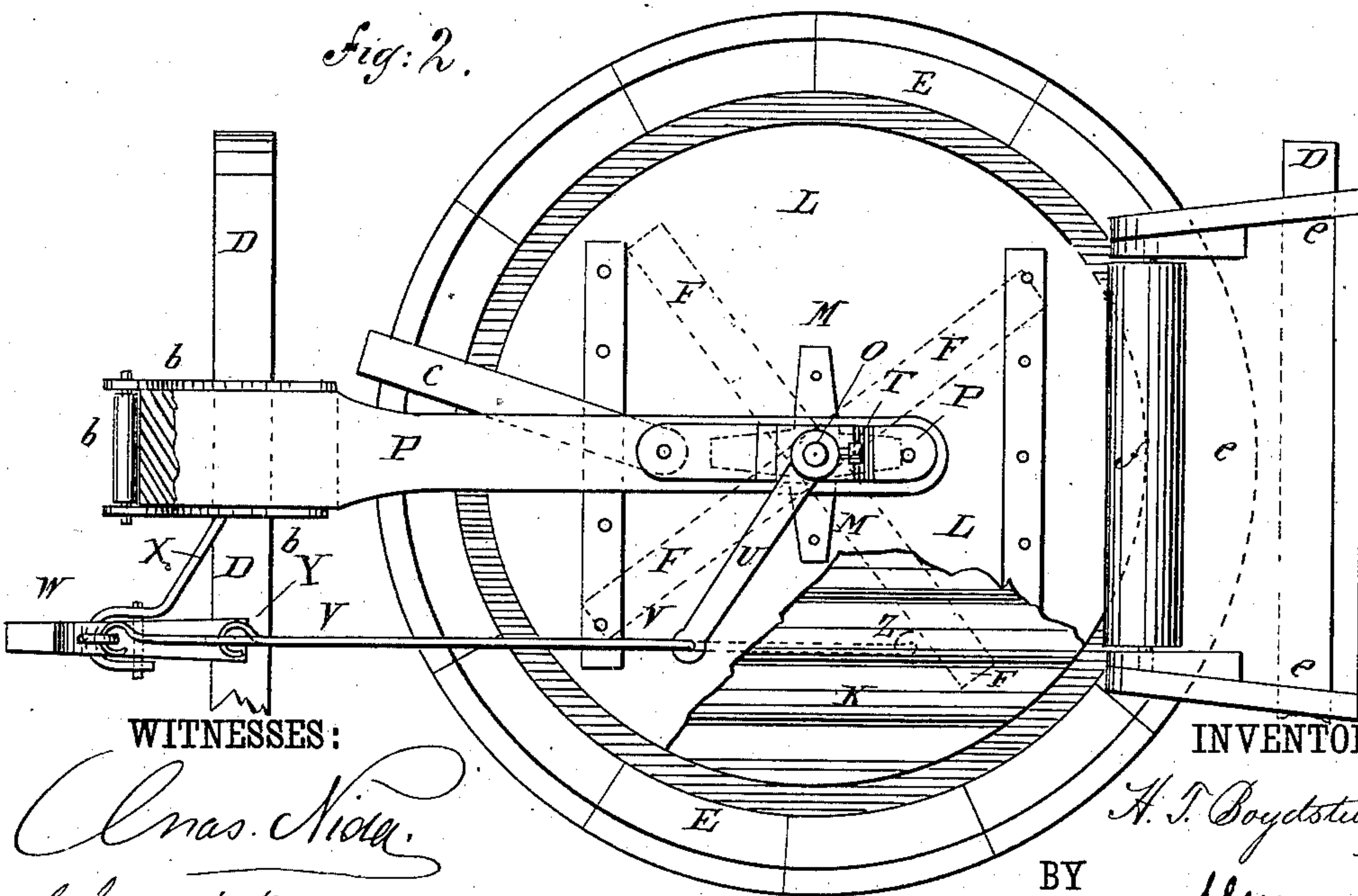


Patented Mar. 24, 1885.



INVENTOR:

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

HOWELL T. BOYDSTUN, OF MONMOUTH, KANSAS.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 314,313, dated March 24, 1885.

Application filed December 10, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HOWELL T. BOYDSTUN, of Monmouth, in the county of Crawford and State of Kansas, have invented certain new and useful Improvements in Clothes-Washers, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improvement, parts being broken away. Fig. 2 is a sectional plan view of the same, parts being broken away. Fig. 3 is a detail view.

My invention relates to improvements in clothes-washers; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claim.

A and B are two posts, connected at or near their lower ends by a sill, C, and having cross-bars D attached to their lower ends to give the frame thus formed a stable support.

E represents an ordinary wash-tub, to the lower side of the bottom of which is attached a frame, F, made in the form of an equal-armed cross or of other desired shape.

To the center of the frame F is secured a metallic bearing, G, cast upon or secured to the upper end of a pin, H, which passes down through the sill C and through metallic bearings I J, secured to the upper and lower sides of the said sill. The bearing G is made with a hub, which enters a recess in the upperside of the bearing I, so as to give the tub a firm support and hold it steady, while allowing it to be turned easily.

To the upper side of the bottom of the tub E, or to bars or a frame attached to the said bottom, is secured the lower rubber, K, above which is placed the upper rubber, L. The adjacent faces of the rubbers K L are deeply grooved, forming corrugations, as shown in Figs. 1 and 2.

To the upper side of the rubber L is attached a spider, M, to which is secured, by a set-screw, N, or other suitable means, the lower end of a rod or shaft, O, which passes up through the end of an arm, P, and through the metallic bearings Q R, attached to the lower

and upper sides of the said arm, so as to give the shaft O a firm and steady support.

Upon the shaft O, between the spider M and the bearing Q, is placed a spiral spring, S, to hold the rubber L down upon the clothes placed between the rubbers with the necessary pressure. If desired, a collar secured in place by a set-screw can be placed upon the shaft O for the lower end of the spiral spring S to rest against, so that the tension of the said spring can be regulated by adjusting the said collar.

To the upper end of the shaft O is secured by a set-screw, T, the hub of a crank-arm, U, which rests upon the upper bearing, R, and supports the shaft O and upper rubber, L, so that the said rubber L can be adjusted at such a distance from the lower rubber, K, as the quantity or character of the clothes being operated upon may require.

The crank-arm U is inclined downward, and to its outer end is pivoted the end of the rod V, the other end of which is pivoted to the lever W. The lever W, at a little distance from its lower end, is fulcrumed to an arm, X, attached to the post A.

To the lower end of the lever W is pivoted the outer end of a rod, Y, the inner end of which is pivoted to an eye, Z, attached to a bar of the frame F, so that by oscillating the lever W the tub E and lower rubber, K, and the upper rubber, L, will be moved forward and back through a part of a revolution, rubbing the clothes placed between the two rubbers, and making them clean in a very short time, the two rubbers always moving in opposite directions.

To the outer end of the arm P is attached the upper end of a short vertical bar, a, which fits into a rabbet in the outside of the upper end of the post A, and is connected to the said post by a hinge, b. The upper straps of the hinge b are attached to the sides of the bar a and arm P, and are curved or inclined forward, so as to overlap the sides of the upper end of the post A, and thus hold the arm P from lateral movement. The arm P, when turned down into a working position, is secured in place by a latch, c, pivoted to the lower side of the said arm P, so as to engage with the post A when swung under the said arm. d is a wearing-plate on the post, against which the free end of the latch c



rests when the bar P is locked in a horizontal position.

In using the machine the arm P is turned back into a vertical position, raising the upper rubber, L, out of the tub E. The clothes to be washed are spread over the lower rubber, K, and the arm P is turned forward into and secured in a horizontal position, the rubber L resting upon the clothes and held down upon them by the spiral spring S. The lever W is then operated to oscillate the rubbers K and L and rub the clothes. When the clothes are clean, the arm P and rubber L are again turned back, so that the clothes can be readily re-  
moved.

To the upper end of the post B is attached a box, e, open at its top and inner side, so that a clothes-wringer can be attached to its outer side, and the water wrung from the clothes can flow back into the tub.

To the inner parts of the sides of the box e, or to bearings attached to the said sides, is pivoted a roller, f, for the clothes to pass over when passing to the wringer to lessen the fric-

tion of the said clothes, and thus cause the wringer to work more easily.

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

In a washing-machine, the combination, with the post A, having its upper end rabbeted, and the bar P, having the shaft of the upper rubber journaled in its outer end and provided with the short vertical bar a at its other end, of the hinge b, having its upper straps curved or inclined forward and attached to the said bars a P, and the latch c, pivoted to the under side of the bar P, substantially as herein shown and described, whereby provision is made for locking the said bar in position and preventing any lateral movement of the same when locked, as set forth.

HOWELL T. BOYDSTUN.

Witnesses:

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