

(No Model.)

C. F. DECKER.  
WASHING MACHINE.

No. 336,299.

Patented Feb. 16, 1886.

Fig. 1.

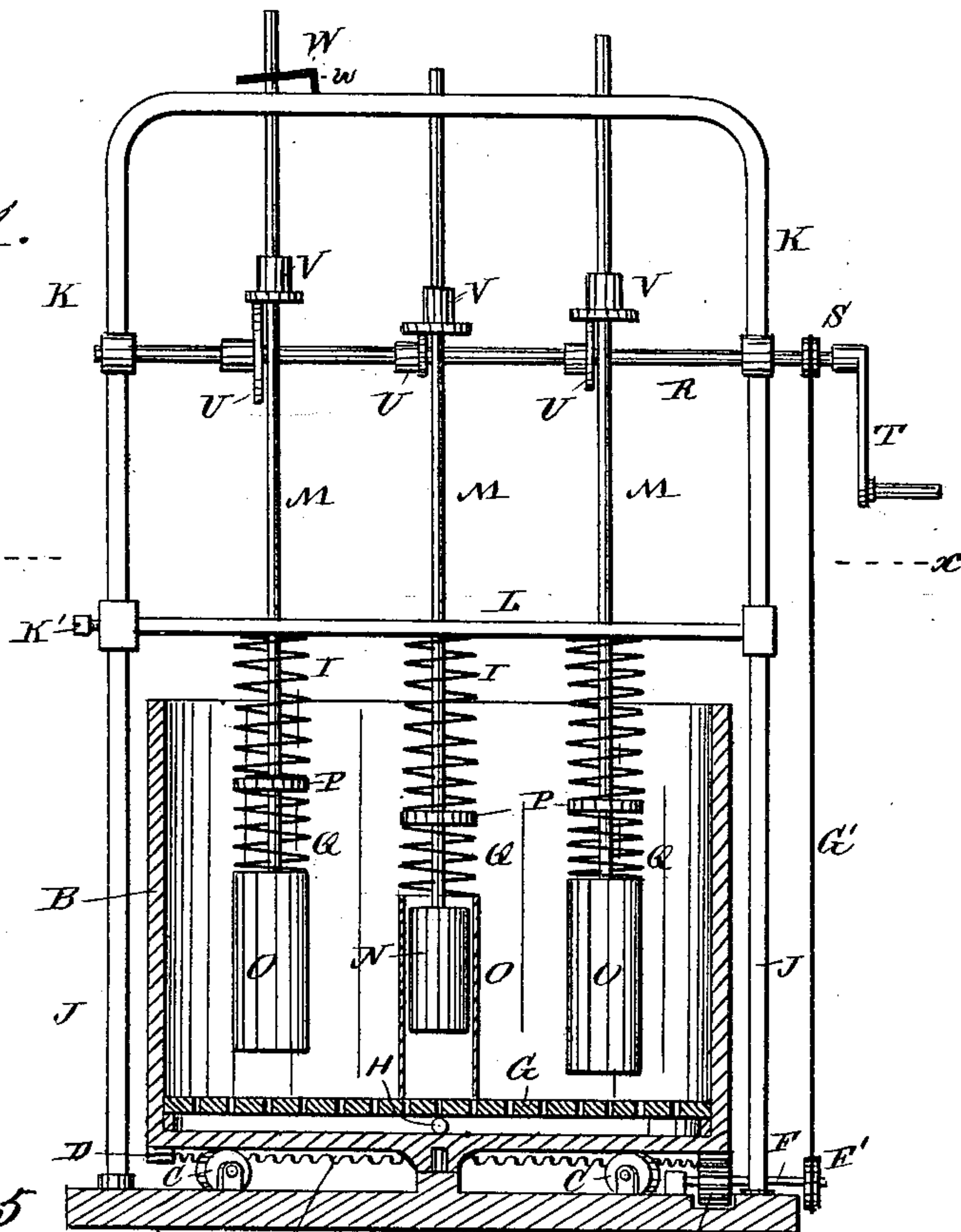


Fig. 4.

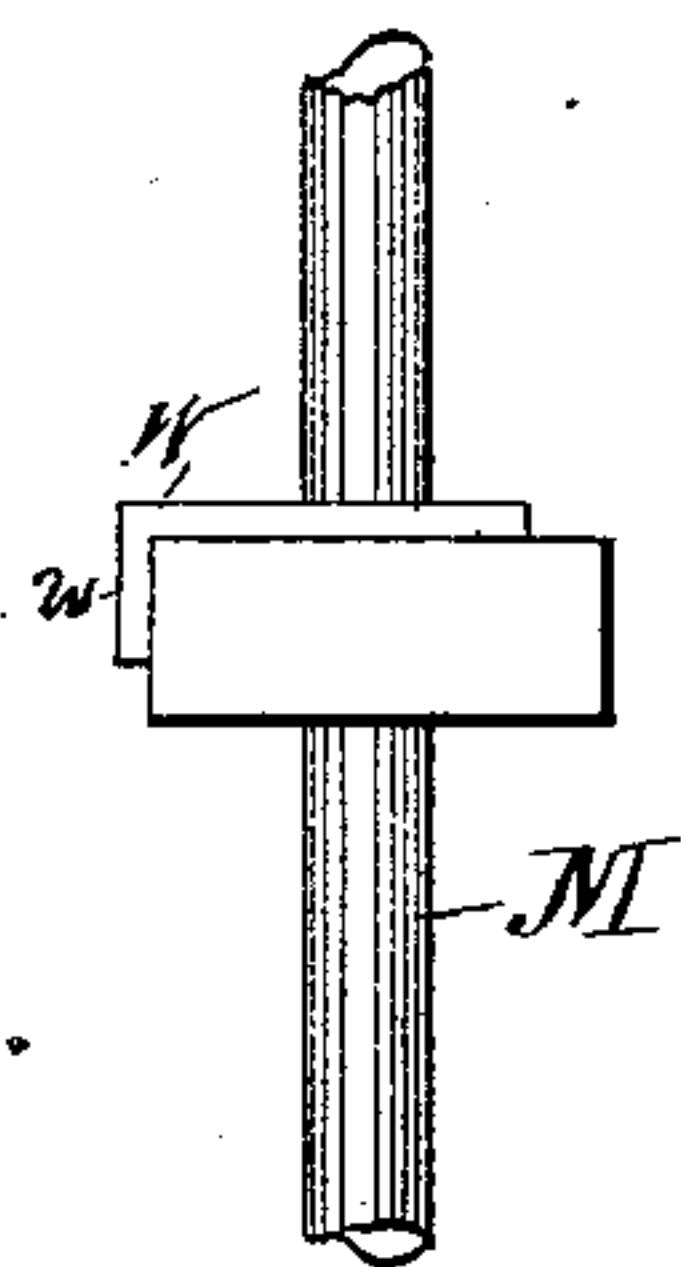


Fig. 5.



Fig. 2.

Fig. 3.

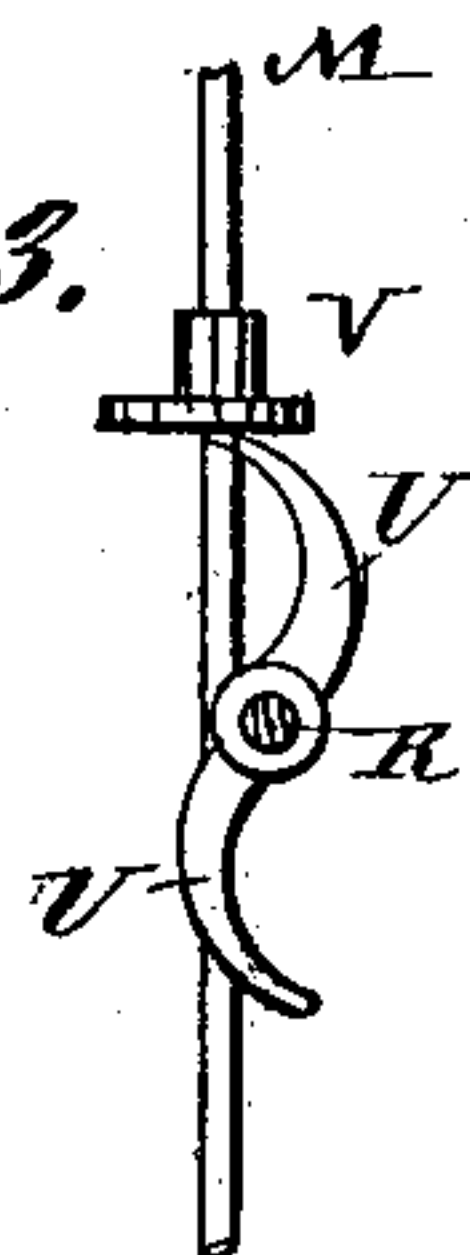
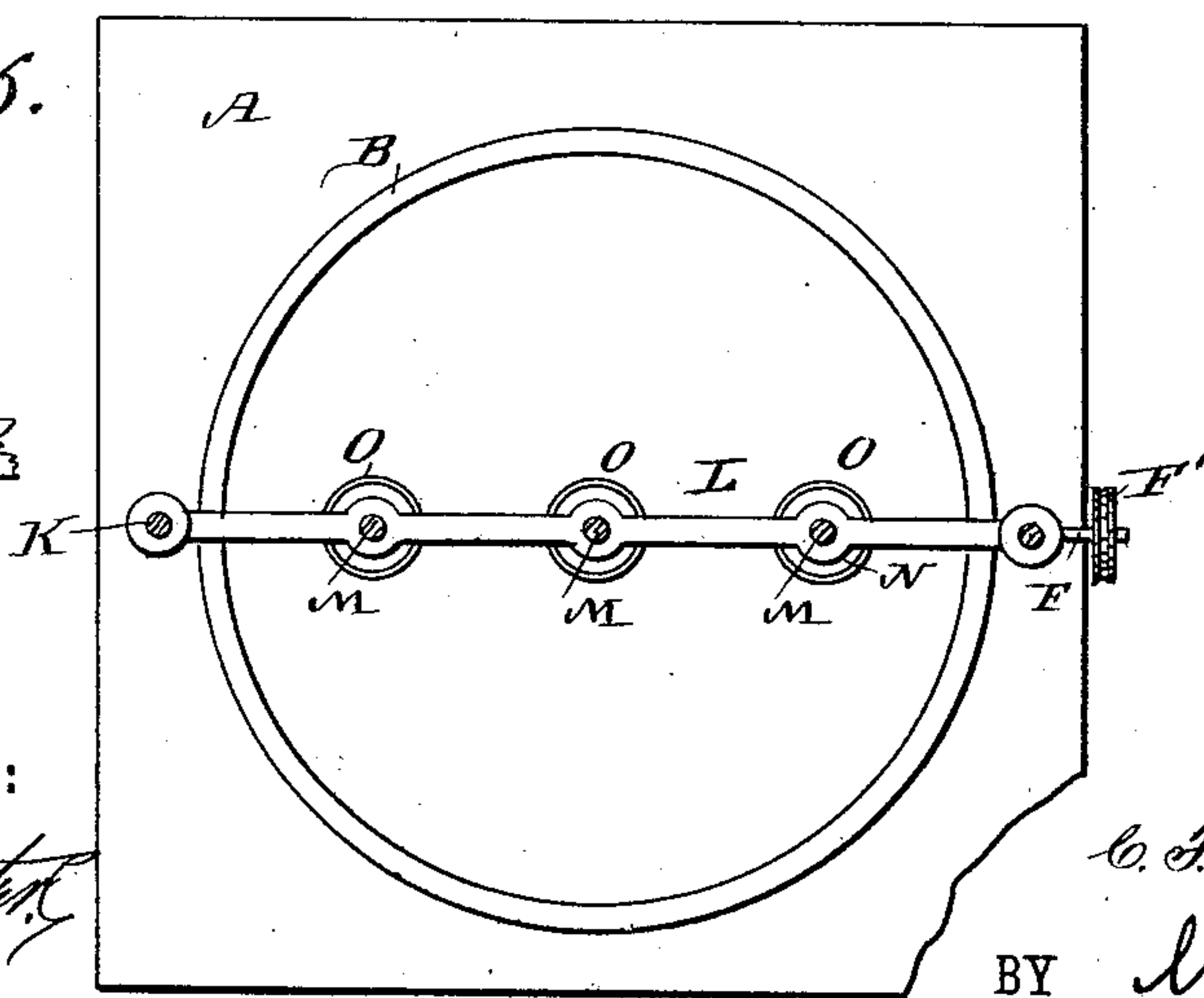
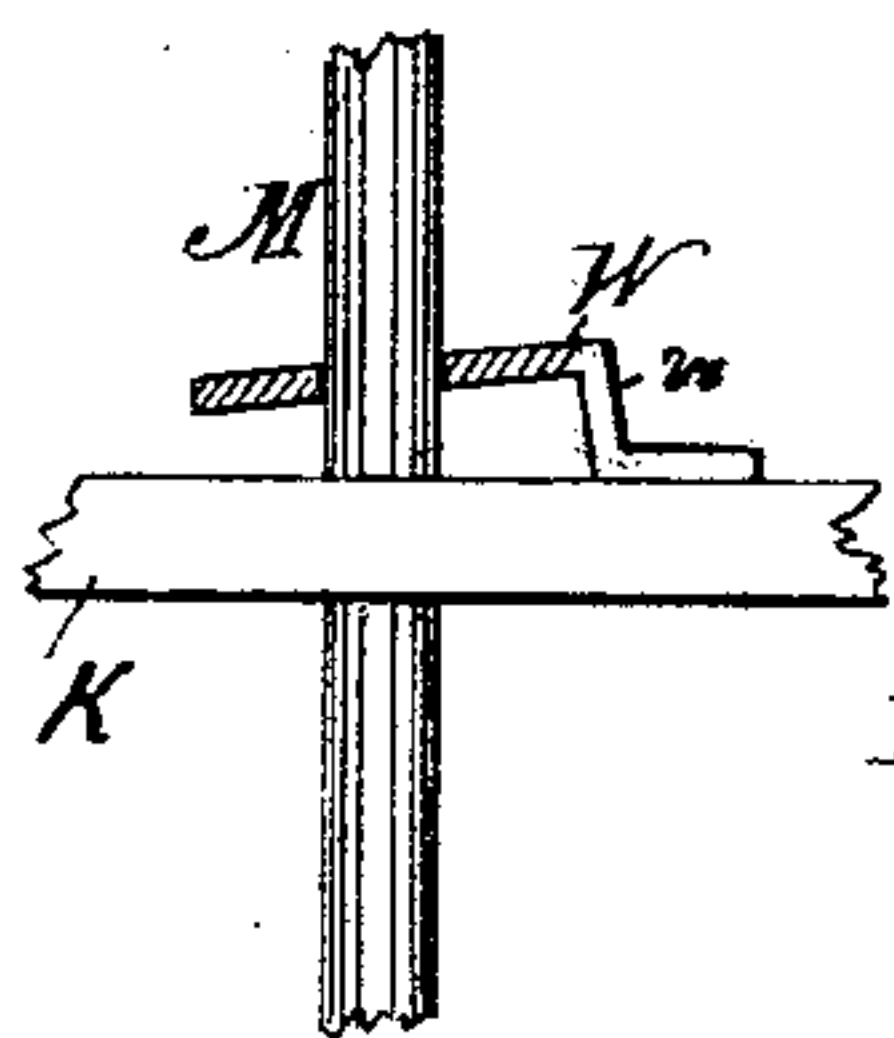


Fig. 6.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES FRANKLIN DECKER, OF SALT LAKE CITY, UTAH TERRITORY.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 336,299, dated February 16, 1886.

Application filed April 18, 1884. Serial No. 128,444. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. DECKER, of Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

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 longitudinal sectional elevation of my improved washing-machine. Fig. 2 is a sectional plan view of the same on the line *xx*, Fig. 1. Fig. 3 is a side view of the cam and disk for each stamp-rod. Fig. 4 is a detail view. Figs. 5 and 6 are detail plan and sectional views, respectively.

On a base-plate, A, the bottom of a wash-tub, B, is pivoted centrally, the bottom of the tub being a short distance above the base-plate and resting on a series of rollers, C, journaled in the upper surface of the base-plate A. The tub is provided on the bottom along the edge with a circular rack, D, engaging with a pinion, E, mounted on a horizontal shaft, F, provided on its outer end with a pulley, F', around which a band, cord, or belt, G', is passed. The tub B is provided with a false bottom, G, a short distance above the real bottom, and between the said bottoms it is provided with an outlet-opening, H. Two standards, J, project upward from the base-plate at the sides of the tub, on the upper ends of which standards a U-shaped frame, K, is held by binding-screws K', in sockets formed on the lower ends of the frame K, which lower ends are united by a cross-bar, L. Three or more or less upright shafts, M, pass through apertures in the top cross-piece of the frame K and in the bar L, and are thus guided to reciprocate vertically, to the lower ends of which shafts plungers or stampers N are fastened, which are surrounded by cylindrical casings O, connected with horizontal disks P on the shafts M, short distances above the upper ends of the plungers N by spiral springs Q, surrounding the shafts. Spiral

springs I surround the shafts M between the disks P and the cross-bar L and press the shafts downward. A cam-shaft, R, journaled in the uprights of the frame K, is provided at one end with a pulley, S, and with a crank-handle, T, or other means for turning it, over which pulley the belt or band G' passes. For each shaft M a cam arm or tappet, U, is mounted on the shaft R, which cam-arms are in different positions. On each shaft M a disk or cross-piece, V, is rigidly mounted, on which the cam-arms U can act to raise the shafts. The frame K, carrying the entire washing mechanism, can easily be detached from the standards J.

The operation is as follows: By revolving the shaft R the shafts M are raised alternately and pressed down by the springs I, and the pinion E is revolved and revolves the tub on its vertical central axis. In descending the cylinders O come down first, and a quantity of air is locked in them, which air is forced through the perforated false bottom G and through the clothes by the descending pistons or plungers. The air also forces the water through the clothes, and the plungers pound and beat the clothes. When the shafts M rise, the plungers N rise with them, and the springs Q then draw upward the cylinders O. If the shafts are to be held raised, catches W are used, through which the shafts pass, the catches consisting of an apertured plate having a right-angular extension, *w*, at one end, as shown. When the catch is in the position shown in Fig. 1, the edges of the aperture engage the shaft and prevent the same from being moved downward, but does not prevent the said shaft from being moved upward. When the catch is turned to the position shown in Fig. 4, with the angular extension *w* resting against the side of the frame, the shaft works freely through its aperture.

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

1. In a washing-machine, the combination, with a tub, of a series of vertical shafts, M, provided with plungers N on their lower ends, open ended cylinders surrounding the plungers, the springs Q, connecting the cylinders to the shafts, the springs I, for forcing the

shafts downward, and means, substantially as described, for raising said shafts, substantially as herein shown and described.

2. In a washing-machine, the combination,  
5 with the tub B, of the vertical shafts M, provided with the plungers N and disks P V, the open-ended cylinders O, the springs I Q, and the crank-shaft R, provided with tappets U, substantially as herein shown and described.
- 10 3. In a washing-machine, the combination, with a supporting-base and a tub pivoted thereon, of the vertical shafts M, provided with the plungers N and disks P V, the open-

ended cylinders O, surrounding the plungers, the springs I Q, the shaft R, and means, substantially as described, for revolving the tub from the shaft R, substantially as herein shown and described. 15

4. In a washing-machine, the combination, with the frame K, of the plunger or stamper 20 shafts M, and of the catches W, substantially as herein shown and described.

CHARLES FRANKLIN DECKER.

Witnesses:

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