

C. J. Weld. Washing Machine.

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Fig. 1

PATENTED AUG 22 1871

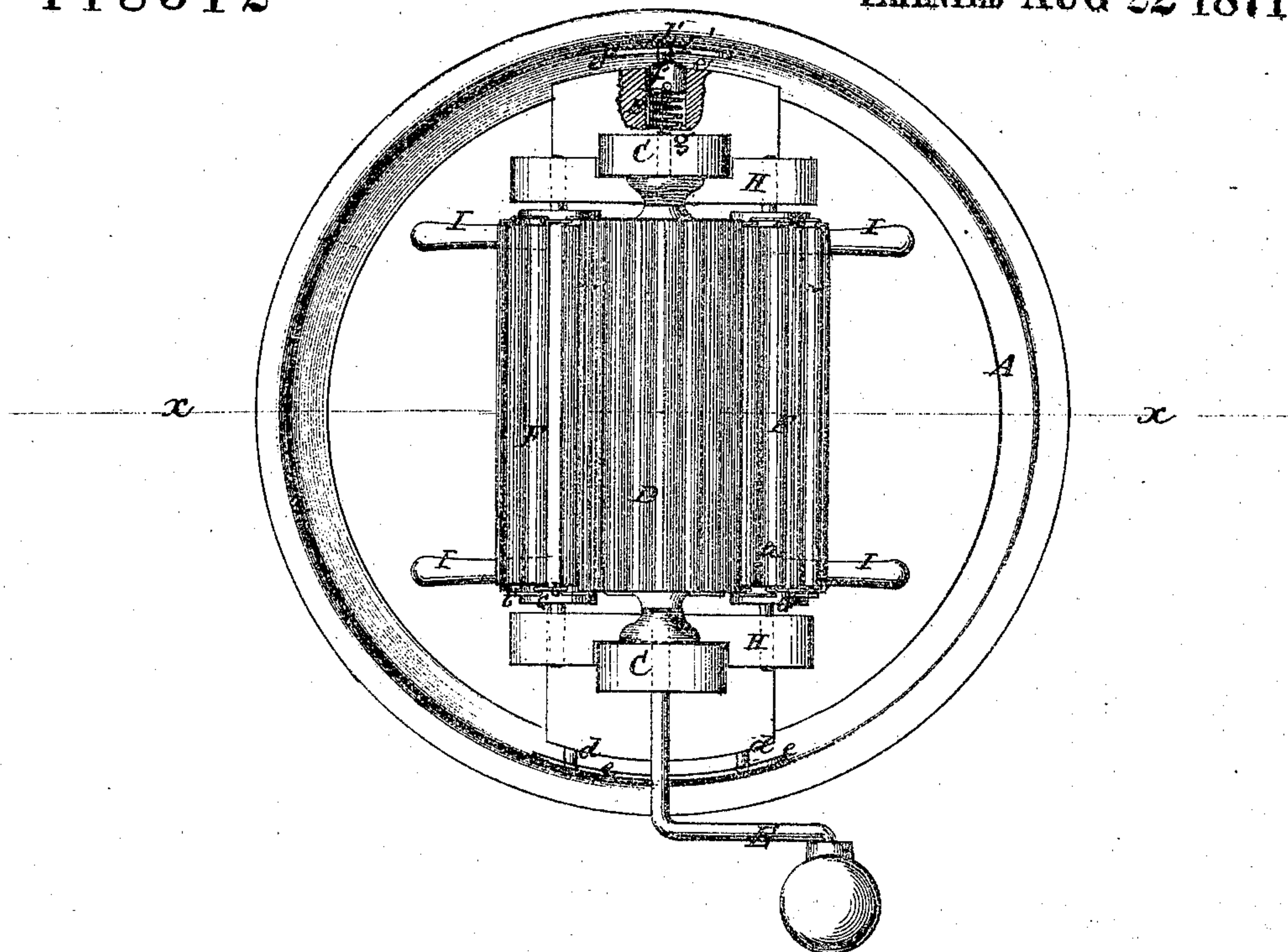
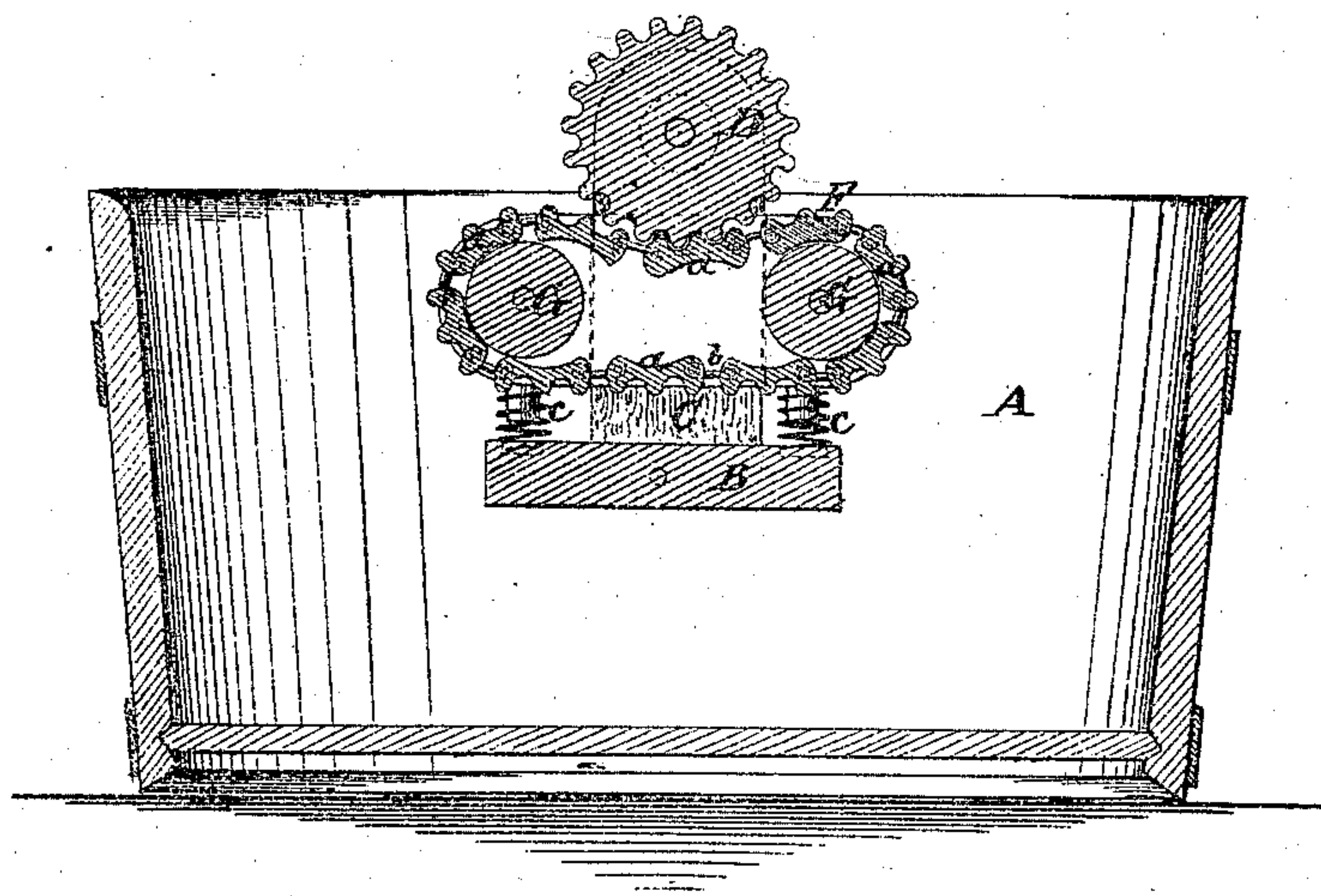


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

CALVIN J. WELD, OF BRATTLEBOROUGH, VERMONT.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 118,312, dated August 22, 1871.

To all whom it may concern:

Be it known that I, CALVIN J. WELD, of Brattleborough, in the county of Windham and State of Vermont, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in improving machines for washing clothes, as hereinafter fully described and subsequently pointed out in the claims.

Figure 1 represents a plan view of my machine placed in position within a tub. Fig. 2 is a cross-sectional elevation of the same through the line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

In the drawing, A represents a tub, within which is fastened the stand B of the washing-machine, rising from which stand are two posts, C, in the upper extremities of which are the journals of the fluted roller D, which is operated by the crank E. Beneath the roller D is an endless bed or apron, F, composed of wooden bars *a*, each provided with corrugations on their outer surfaces, in which the roller D engages. The ends of the bars *a* are connected by means of links *b*, as shown; the apron thus formed passes over two rollers, G, whose journals rest in boxes arranged in the yoke-bars H, which latter are arranged upon the inner faces of the posts C, the said yoke-bars having a vertical movement upon said posts. The yoke-bars, and with them the apron F and rollers G, are pressed upward by means of springs *c* arranged between the stand B and the yoke-bars, as shown.

The clothes are cleansed by being passed and repassed between the roller D and the endless apron F, which latter has a vertical yielding movement due to the springs *c*; the apron F and roller D thus accommodate themselves to fabrics of different thicknesses. The fabrics to be cleansed are introduced and drawn in between the roller D and apron F by turning the crank, and the motion thus produced causes a rubbing action by the corrugated faces of the roller and apron upon both sides of the fabrics simultaneously, which effectively cleanses the same. During

this operation the tub is to be partially filled with water, into which the fabrics will alternately fall as they pass back and forth through the machine, and are thus washed and rinsed in the water as well as rubbed.

Any degree of rubbing may be imparted to the fabric or any portion thereof by the attendant, who, during the operation, may hold the fabric, allowing it to pass rapidly or slowly through the machine, and thus govern the degree of rubbing. Projecting from the stand B are guide-pins I, which guide the fabrics as they leave or enter between the apron and roller.

The washing-machine is fastened within the tub by means of two pins, *d*, which project from one end of the stand B, which pins enter corresponding apertures in a plate, *e*, which is secured upon the interior of the tub. A similar plate, *e'*, is arranged upon the opposite side of the tub, in which a pin, *d'*, rests; this pin projects from a movable plug, *f*, arranged within the end of the stand B, the plug being pushed outwardly by a spring, *g*. The machine is fastened within the tub by inserting the spring-pin *d'* in its plate, and pressing the machine laterally against the tub, which will permit the opposite end of the machine to descend until the pins *d* enter their plate *e*, when the spring *g* will act to lock the machine in its place.

The machine may be removed from the tub at any time by simply pressing the machine against the side of the tub in the direction of the spring-plug, so as to release the pins *d* from their plate *e*, when the machine may be lifted from the tub.

The bars *a* are connected together so as to form an endless belt or apron by means of links *b* and loops *b'*. The latter are made in the form of staples, the backs thereof being flat. These staples serve the double purpose of connectors for the links *b*, and of end guides for the bars, keeping the latter in place when in motion, the back of said loops bearing against the inner faces of the yoke-pieces H in case of any tendency to displacement of the bars during their movement.

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

1. The combination of the bed F and rollers G with the vertically-adjustable yokes H and springs, substantially as herein shown and described.

2. The combination of the yokes H with the posts C, when the latter are used as guides, substantially as herein shown and described.

3. The mode of fastening the machine within the tub by means of the spring-plug *f*, substantially as herein shown and described.

4. The corrugated bars *a* when connected at their ends, substantially as described.

5. The flat loops *b'*, in combination with the links *b* and the bars *a*, substantially as described.
CALVIN J. WELD.

Witnesses:

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