J. K. CUMMINGS.

WASHING-MACHINES.

No. 195,096. Patented Sept. 11, 1877.

Fig. 1.

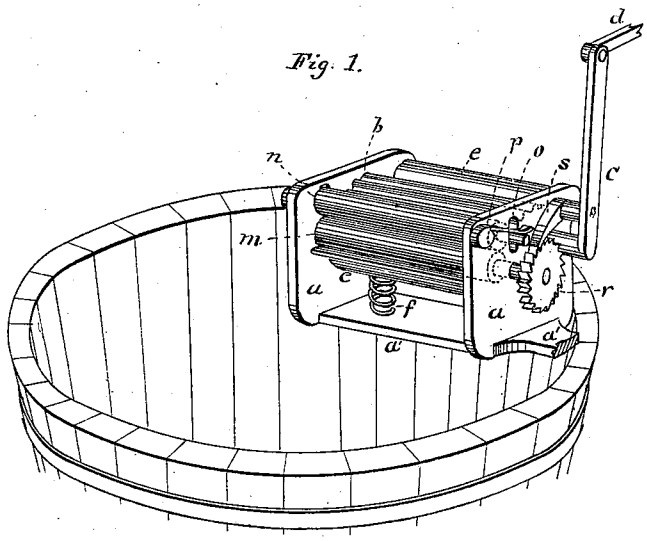
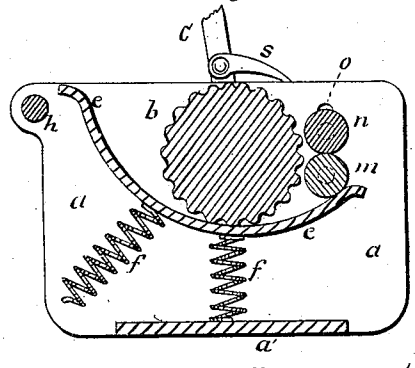


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES K. CUMMINGS, OF LADONIA, TEXAS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **195,096**, dated September 11, 1877; application filed June 5, 1877.

To all whom it may concern:

Be it known that I, JAMES K. CUMMINGS, of Ladonia, in the county of Fannin and State of Texas, have invented certain new and useful Improvements 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 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to furnish a washing-machine which can be operated by a spring-motor or other power; and my invention, which consists of the improved machine hereinafter described, will be fully understood from the following description and claims.

Figure 1 is a perspective view of the machine, and Fig. 2 is a central vertical cross-section through the rollers on an enlarged scale.

The frame of the washing-machine is attached to the frame of the motor, and the motor, with the machine, is, for convenience, mounted on a bench, so that the machine will come just above a wash-tub placed beneath it. The motor and its support are not shown in the drawings; but the connection and the manner of operating the machine will be readily understood.

The portion of the frame *a'* (shown broken) connects the washing-machine with the frame of the motor, and the pitman *d* is attached to the crank of the motor. The motor which is intended to be used with the machine belongs to the class of spring-motors. A strong convolute spring is wound up by a crank, and the power is transmitted, through multiplying-gearing, to a crank-arm, to which the pitman *d* is attached. The motor should have a brake or other device, so that the speed can be under the control of the washer-woman.

a a' is the frame of the machine. *b* is a large fluted roller, having fixed bearings in the end plates *a a*. To one end of the journal of the roller *b* is attached the arm *c*, and the pitman *d* is pivoted to the free end of the arm *c*. This connection gives a reciprocating rotary movement, through a small arc, to the fluted roller *b*. Below the roller *b* there is an apron, *e*, preferably roughened or fluted, which is pressed up against the bottom and front of the roller *b* by the springs *f f*.

On the front side of the machine, where the clothes enter—that is, the front, as used, being the back as shown by Fig. 1—the apron *e* is higher than on the back side, and the rod *h*, which connects the side *a a* of the frame, is placed at the edge of the apron *e*. On the back side of the roller *b* there are two small rollers, *m* and *n*. The roller *m* turns in fixed bearings, and one end of its journal carries the ratchet-wheel *r*. The bearings of the roller *n* slide in vertical slots *o*, and are held down by the springs *p*. The pawl *s* is pivoted to the arm *c*, and works the ratchet-wheel *r*. Each forward movement of the arm *c*, which causes a backward movement of the fluted roller *b* with respect to the apron *e*, turns the ratchet-wheel one notch, and revolves the roller *m* in the direction which draws the clothes through the machine between the rollers *m* and *n*.

The clothes are fed into the machine between the roller *b* and the apron *e*, and pass down between the same. The curved apron retains the water and suds, and the reciprocating rotary movement of the fluted roller *b* thoroughly washes and cleanses the clothes. The slow rotation of the roller *m* gradually draws the clothes through the machine, and they are wrung by passing between the rollers *m* and *n*.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of the fluted roller *b*, having a reciprocating rotary motion on a fixed axis, the apron *e*, supported on springs *f*, and the rollers *m* and *n*, the roller *m* having a slow rotary motion, substantially as described, and for the purpose set forth.

2. The combination of the roller *b*, apron *e*, rollers *m* and *n*, arm *c*, pawl *s*, and ratchet *r*, the whole combined substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES K. CUMMINGS.

Witnesses:
N. R. BARNES,
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