J. B. WANTZ & L. W. STRASBOUGH.

Washing-Machine.

No. 199,603. Patented Jan. 22, 1878.

Fig. 1.

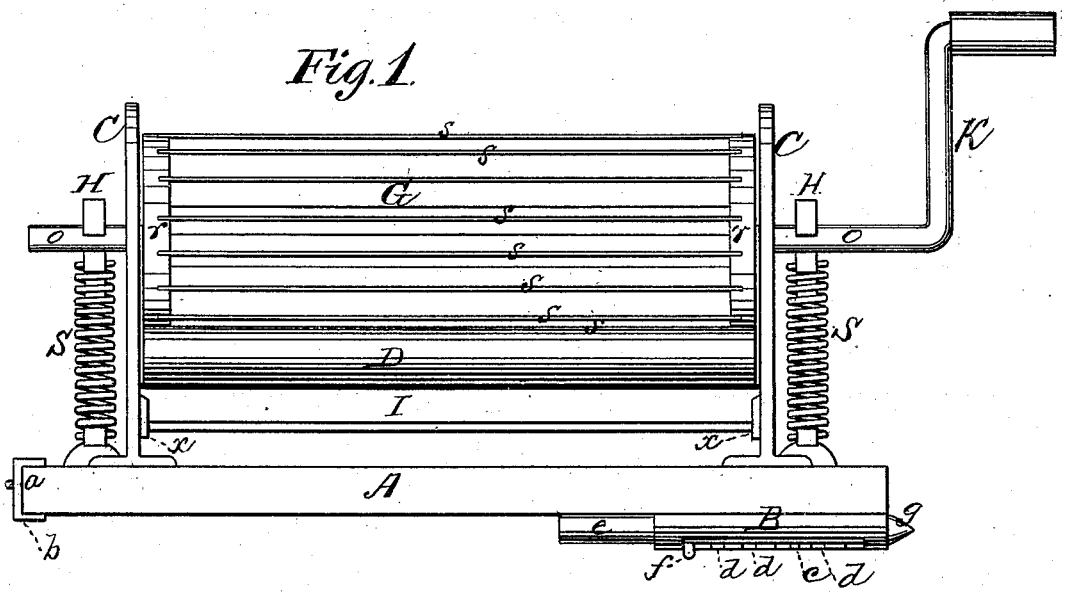


Fig 2.

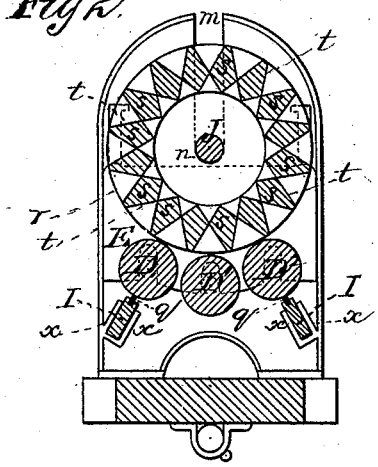
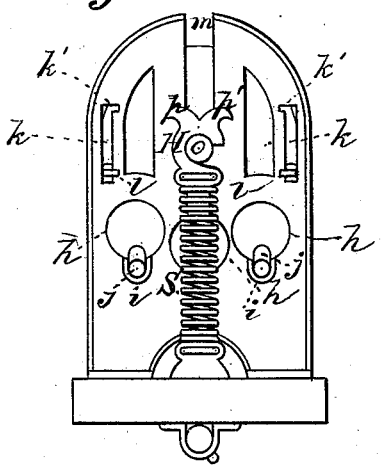


Fig 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. WANTZ AND LEVI W. STRASBOUGH, OF YORK, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **199,603**, dated January 22, 1878; application filed October 6, 1877.

To all whom it may concern:

Be it known that we, JOHN B. WANTZ and LEVI W. STRASBOUGH, of York, in the county of York and State of Pennsylvania, have invented a new and valuable Improvement in Washing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of our improved washing-machine. Fig. 2 is a cross-sectional view, and Fig. 3 is an end view.

This invention has relation to improvements in washing-machines.

The nature of the invention will be fully set forth in the following description, and in the claims appended thereto.

In the annexed drawings, the letter A designates the base of our improved machine, having one end rounded, as shown at *a*, and provided with a curved shoe, *b*, secured thereto by means of suitable screws. Upon the outer surface of this shoe one or more points or spurs may be formed, which, taking hold upon the wooden sides of the tub, will hold the machine steady. At the other end of this base is rigidly secured, in any suitable manner, a barrel, B, having a longitudinal slot, *c*, provided upon its lower edge with spaced notches *d*. Within this barrel is a cylindrical bolt, *e*, having a projecting handle, *f*, that extends through slot *c*, and is adapted to engage the notches *d*. By extending this bolt the base A may be secured to a tub that is wider than the base is long, as the pointed end *g* of the said bolt will bury itself in the walls of said tub. Upon this base, at a suitable distance apart, are secured two parallel metallic standards, C, having each three or more circular orifices, *h*, arranged in an arc of a circle at a point about midway of their length, and terminating at their lower edges in bearings *i* for three rollers, D D^1 D^2, of the same or nearly the same diameter, which constitute the lower system of rollers of our machine. These rollers are made of any of the usual materials, and may be tangential to each other. They are seated in their bearings *i* by passing them through the orifices *h*, seating one of the journals *j* in its bearing in one of the uprights or standards C, and then dropping the other journal into the other bearing in the other standard.

The standards C are provided, near each lateral edge, with a vertical slot, *k*, terminating at their upper ends in an enlargement, *k'*, adapted to receive a knob or spur, *l*, projecting outward from a metallic plate, E, the lower edge of which is provided with half-bearings for the journals of the rollers D D^1 D^2.

Plates E are, in their nature, retainers, and serve to hold the rollers to their engagement with their bearings. If, for any reason, it should be necessary, the said rollers may be removed from the standards by raising one of the retainer-plates E until the headed spurs *l* are received in the enlargements *k'* of slots *k*. The said spurs may then be pushed through the said enlargements, and the plate E detached from the standard. This leaves the apertures *h* uncovered, and, by raising the journals of the said rollers out of their bearings, they may be drawn through the said apertures and detached; or the slots *k* may be made sufficiently long to allow the plates E to be so raised that their lower edges will clear the orifices *h*. In this case the rollers D D^1 D^2 may be removed without detaching plate E from the standard. Immediately above the central orifice *h*, and parallel to the slots *k* aforesaid, a slot, *m*, is formed in each of the standards C, that terminates at its lower end in a bearing, *n*, for the journal *o* of the corrugated roller G. These slots are open at their upper ends for convenience of introducing the said pressure-roller into the machine. The journals *o* of roller G extend out considerably beyond the standards C, and are engaged by hooks H rigidly secured to the upper ends of spiral springs S, the lower ends of which are secured in any suitable manner to the base A. These hooks are provided upon their upper edge with oppositely-projecting spurs *p p'*, in which the thumb and forefinger of the hand will be placed in engaging the hooks with and disengaging them from the journals of the pressure-roller. In the act of engaging the hook and journal of this roller the spring S is drawn out or distended, and its reactive force

causes the said roller to bear upon the fabrics being cleansed in their passage between it and the rollers D D^1 D^2.

I represent inclined slats arranged in ways or guides *x* upon the standards C below rollers D D^2, and having upon their upper edges a strip of rubber, *q*, bearing against the perimeter of the said rollers. As shown in Fig. 2, these slats are deeply grooved, and the strips *q* are seated in said grooves and confined therein in any suitable manner. They serve to scrape off any superfluous moisture from the said rollers, thereby causing the dirty water expressed from the fabric being cleansed to fall into the tub instead of being rubbed by the rotation of the said rollers D D^2 into the said fabric.

The pressure-roller G is composed of two circular heads or ends, *r*, and of four-sided ribs *s*. These ribs are irregularly diamond-shaped in section, and their ends are seated in correspondingly-shaped sockets *t* upon the opposite faces of the said heads. These latter are keyed or otherwise properly secured upon an axial shaft, J, the ends of which constitute the journals of the roller above alluded to as having their bearings in the slots *m*.

When the slats or ribs *s* are worn out they may be replaced by new ones by removing one of the heads, drawing it off the shaft J, and detaching the said ribs from the remaining head.

The rollers G and D D^1 D^2 are tangential to each other; and motion is imparted to the machine by means of a crank-arm, K, upon one of the ends of the shaft J.

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

1. The standards C, having circular orifices *h*, and the bearings *i*, opening into the same, in combination with the rollers D D^1 D^2, of less diameter than the said orifices, substantially as specified.

2. The standards C, having bearings *i*, orifices *h*, and lateral guide-slots *k*, and the retainer-plates E, having spurs *l* engaging said slots, in combination with rollers D D^1 D^2, having journals *j*, substantially as specified.

3. The combination, with the rollers D D^1 D^2, the plates C, affording bearings for said rollers, and having a vertical slot, *m*, and the pressure-roller journaled in said slots, of the hooks H, engaging the journals of roller G, and the springs S, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JOHN B. WANTZ.
LEVI W. STRASBOUGH.

Witnesses:
C. A. EISENHART,
JOHN KISTER.