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GEORGE W. BENTON, OF EAST PIKE, NEW YORK, *

Letters Patent No. 94,938, dated September 21, 1869.

IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE W. BENTON, of East Pike, in the county of Wyoming, and State of New York, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure I is a longitudinal vertical section.

Figure II, a plan thereof.

Like letters of reference designate like parts in each of the figures.

My improvements relate to that class of washing-machines in which the washing is effected by a ribbed cylinder oscillating on a concave of rollers, arranged side by side, between which and the said cylinder the clothes are placed, and moved back and forth, as required by the action of the cylinder. The rollers forming the concave have heretofore been arranged in a frame fitting within the box or tub forming the body of the machine, and been supported on two elliptic springs.

My invention consists—

First, of the special device, constructed as herein after described, forming adjustable spring bearings for the journals of the oscillating cylinder.

Second, in supporting the frame containing the concave on four spiral springs, arranged around suitable guide-pins under each corner, in combination with the cylinder and its adjustable spring bearings.

In the drawings—

A is the rectangular box or tub for containing the water, supported on suitable legs, B B, and forming the frame for supporting the cylinder C, the journals of which are retained in notches in the sides thereof.

D D is a series of rollers, arranged side by side under the cylinder, and within the rectangular frame E E, forming the concave before alluded to.

f f are guide-pins, projecting upward from the bottom of the box A, through the spiral springs g g, and the frame E, which is supported on the latter.

The cylinder C, I prefer to construct as shown, consisting of the shaft H, two head-blocks, I, of semi-cylindrical form, as shown in Fig. I, sufficient space

being left between them for the free passage of the water.

K is the winch or arm, at one end, for oscillating the cylinder.

l l are two rods, which hook over the ends of the journals, and thence descend outside of the box, passing through the stationary guide-piece m, and follower or movable piece n, where they are fastened by thumb-screws o.

The cross-pieces m n are secured between two uprights, p p, fastened to the lower portion of the tub, and to a cross-piece, R, connecting the two legs of the machine. The ends of the movable piece n fit in slots in the uprights, so as to have a free vertical movement therein.

From this cross-piece two pins, r, extend upward, passing loosely through the stationary cross-piece m and interposed spiral springs s.

The thumb-screw o permits the cylinder to be adjusted so as to press with greater or less force on the concave, according to the thickness of the garments being washed.

The spiral springs under the frame of the concave, in connection with the upper spring bearings of the cylinder, enable the parts to yield with the greatest facility to the inequalities of the clothes interposed between them. This enables the machine to be more easily operated, and subjects it to less wear and strain, and preserves the clothes from injury in the breaking of buttons, and other damage, which result when the parts are made less yielding.

I do not claim, broadly, a yielding concave, or a yielding and adjustable pressure-cylinder; but

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

The arrangement with the concave D, ribbed cylinder C, frame E, and tub A, of the adjusting-screw o, rod l, spiral springs s g, and guide-pins r f, as herein set forth.

GEORGE W. BENTON.

Witnesses:

O. B. VAN DEUSEN,
M. L. VANSLYKE.

* Given to self & George C. Flint of said place.