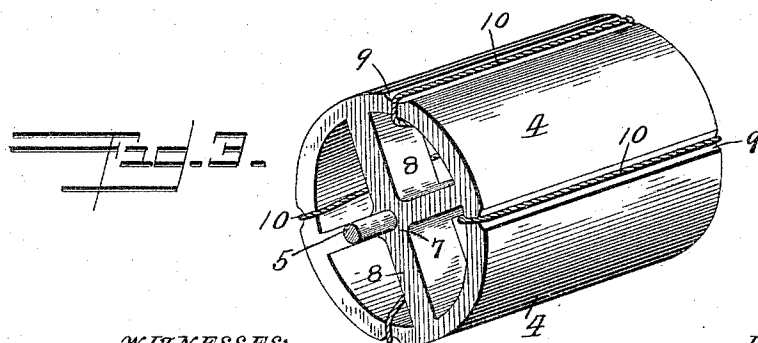
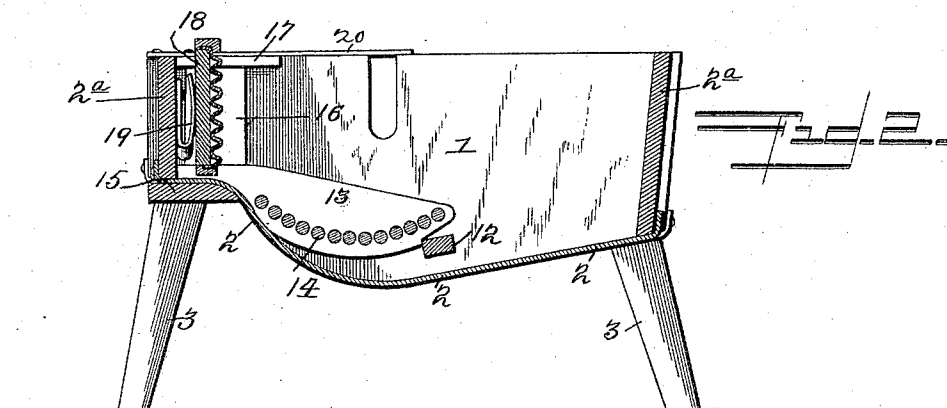
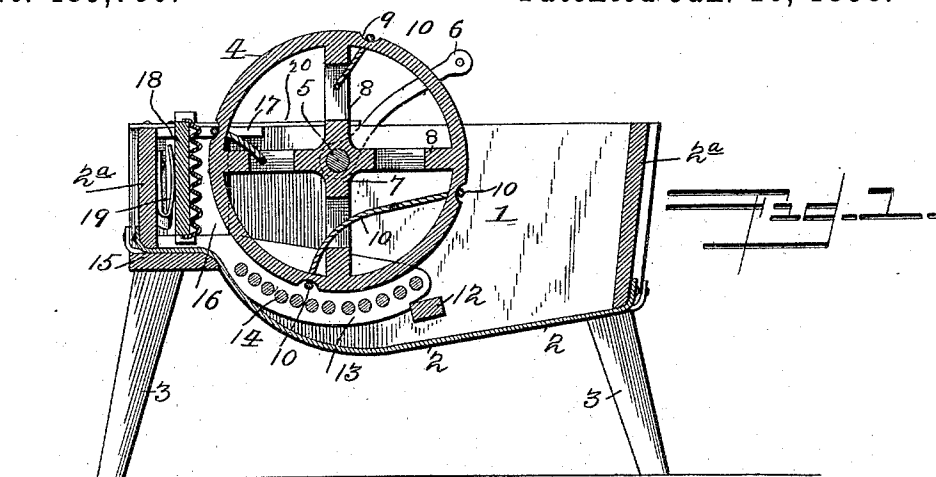


(No Model.)

M. ROBERTS.
WASHING MACHINE.

No. 489,760.

Patented Jan. 10, 1893.



WITNESSES:
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UNITED STATES PATENT OFFICE.

MILLER ROBERTS, OF POPLAR BLUFF, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 489,760, dated January 10, 1893.

Application filed February 26, 1892. Serial No. 422,917. (No model.)

To all whom it may concern:

Be it known that I, MILLER ROBERTS, a citizen of the United States, and a resident of Poplar Bluff, in the county of Butler and State of Missouri, 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 of the invention, 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, which form a part of this specification.

My invention relates to washing machines and the object is to provide an improved construction of same whereby superior advantages are secured with respect to economy, simplicity, and efficiency.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a central longitudinal section of a washing machine constructed according to my invention; Fig. 2 is a similar view of the suds box, the drum being removed; Fig. 3 is a perspective view of the drum.

In the said drawings the suds box is represented as consisting of the curved sides 1, of wood or other suitable material, a bottom 2, and ends 2^a supported by the legs 3. The numeral 4 designates a drum, having a shaft 5, journaled in the sides 1, and provided with a crank 6. This drum consists of a cylinder open at both ends and formed or provided with a hub 7, and a series of radial arms 8, so that there will be a free circulation of water. This drum is formed with a series of peripheral horizontal grooves 9, in which are located cords 10, between which and the drum the clothes to be washed are placed and held.

The numeral 12 denotes a transverse bar secured to the sides 1, upon which one end of a curved rubber rests, this rubber consisting

of the sides 13, and the rollers 14 journaled therein, the opposite end of the rubber resting upon a ledge 15, in the bottom of the suds box. Upon the front ends of the sides 13, rest sliding blocks 16, which are guided and held in place by means of bars 17, secured to the inner sides of the side pieces 1. Connected with these blocks is a metallic scrubbing board 18, between which and the ends 2^a are located springs 19, the tendency of which is to move the scrubber toward the drum.

The numeral 20, denotes a strip secured to the upper edge of the suds box, for preventing the shaft 5, from jumping out of its bearings.

The operation is as follows: The clothes or fabrics to be washed are placed between the cords and the drum, so that they are held securely in place, and a proper quantity of water placed in the suds box, the scrubber being pressed close up against the same by means of the springs. The drum is then rotated and the clothes are first brought into contact with the scrubber, and then with the rubber whereby they are thoroughly cleansed from dirt and other impurities.

Having thus described my invention, what I claim is:

In a washing machine, the combination with the suds box the sliding spring actuated scrubber 18, and the curved rubber provided with the sides 13, and the rollers 14, journaled therein, of the drum journaled in the suds box, having a solid periphery with peripheral grooves, radial arms, and open ends, and the cord located in said grooves, substantially as described.

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

MILLER ROBERTS.

Witnesses:

A. M. ALLEN,
JAY DAVIDSON.