No. 631,932. Patented Aug. 29, 1899.

J. C. FENIMORE.

WASHING MACHINE.

(Application filed July 15, 1897.)

(No Model.)

Fig. 1.

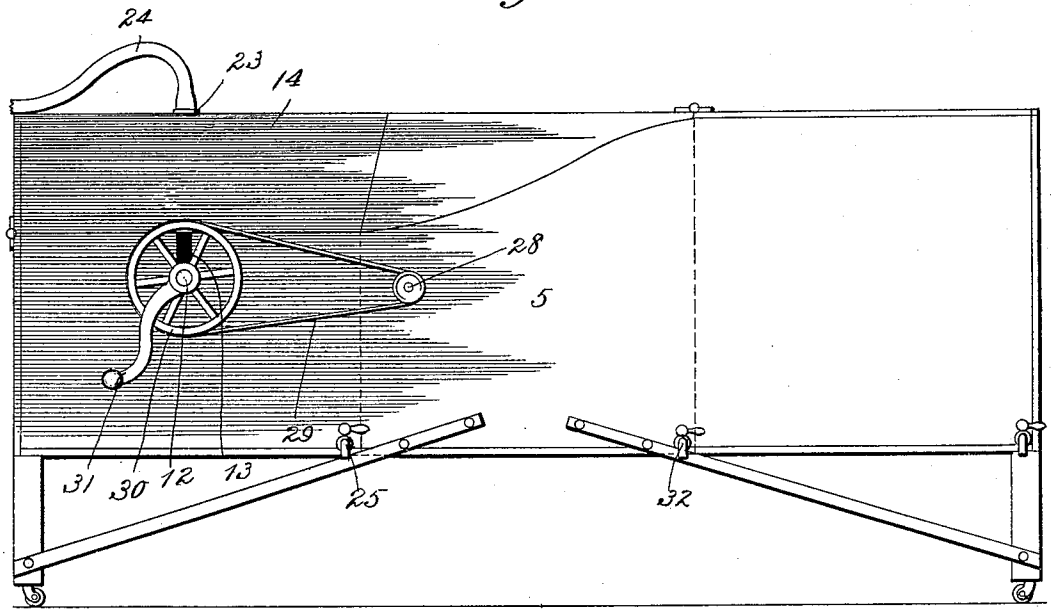
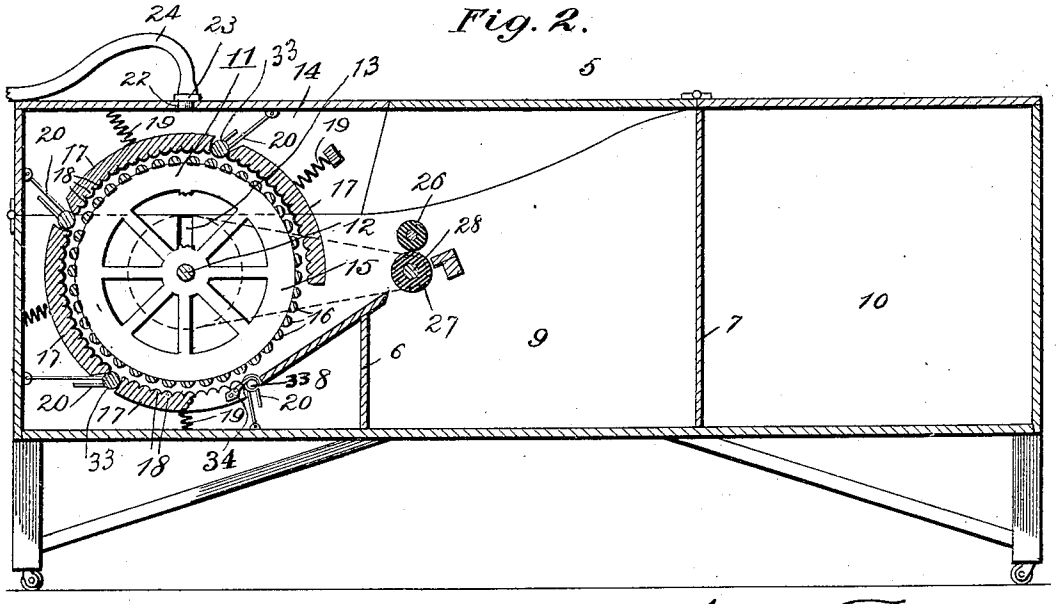


Fig. 2.



WITNESSES

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JAMES C. FENIMORE, OF NEWTON, KANSAS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 631,932, dated August 29, 1899.

Application filed July 15, 1897. Serial No. 644,624. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. FENIMORE, a citizen of the United States, residing at Newton, in the county of Harvey, State of Kansas, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to washing-machines in general, and more particularly to that class which are adapted for washing, steaming, and wringing and rinsing, and has for its object to provide a device of this nature which will embody in a simple construction all of the functions above enumerated in a cheap and efficient manner.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in both views, Figure 1 is a vertical elevation of my device closed and ready for operation, while Fig. 2 is a vertical longitudinal section thereof.

Referring now to the drawings, in forming a device in accordance with my invention I construct a rectangular box or casing 5, which is divided through the medium of vertical partitions 6 and 7 into three compartments 8, 9, and 10. The first compartment 8 is divided horizontally on a line about one-third of the way down from its top, this upper third acting as a cap or covering 14 for the compartment and greatly facilitating the insertion of clothing, &c., as will be presently explained.

Journaled in the sides of the lower portion of the compartment 8 is a drum 11, arranged upon a shaft 12, a vertical slot 13 being formed in each side of the casing and leading to the trunnions to facilitate insertion and removal of the drum. This drum consists of circular end pieces 15, across which are arranged slats 16, which are preferably rounded and which may be arranged any desired distance apart that may be found necessary, the whole structure being such that the water may readily run therethrough and little resistance will be offered to steam. A series of arc-shaped boards 17, having corrugated inner faces 18, is adapted to coöperate with the similar adjacent portions of the face of the drum 11, said boards forming, in effect, substantially a shell or casing for the drum, separated therefrom by an interspace.

In order to hold the arc-shaped boards 17 in the proper positions relative to the drum, and, furthermore, in order that they may have a yieldable pressure upon the material introduced between them and the drum, I arrange a series of helical springs 19, which press upon their respective boards, said boards being limited in their movement in the direction of the drum by hooks 20, secured to the inner wall of the compartment and having connection with the said boards. The upper boards are supported from the cap 14, so that when the latter is raised direct access to the drum is had. The boards 17 entirely encircle the drum 11 except at one point at the inner lower side, which portion of the drum is left uncovered for the ingress and egress of clothing and other material to be cleansed, an inclined board being arranged within the adjacent corner of the compartment, which acts to feed the material to be operated upon into the opening between the boards at this point and into engagement of the roller and adjacent board.

The opening 22 is formed in the cap or cover 14 of the compartment 8, in which opening is arranged a nipple 23, having connection with a flexible tube 24, which leads to any suitable source of steam and through the medium of which steam may be introduced into the chamber or compartment and into contact with the clothing. The ends of the drum being open, the steam will naturally pass within the drum and between the slats or bars thereof, and thus into contact with the clothing, steaming them thoroughly, which clothing under the influence of the pressing, squeezing, and rubbing of the drum and boards will be thoroughly cleansed of all foreign material. Intermediate the ends of boards 17 are arranged rollers 33, journaled in bearings carried by their respective boards, which rollers facilitate the passage of the clothing from one board to another. In order to hold the rollers in position between the ends of the arc-shaped sections 17, I secure to the opposite ends of the sections bearings 34, consisting of plates having rings to receive the ends of the rollers, as shown. A spigot 25, ar-

ranged at the bottom of the compartment, allows the withdrawal of water at any time.

When the clothes have been thus steamed and rubbed, they are dropped into the second compartment 9, which compartment contains clear water and in which water they are thoroughly rinsed, after which they are passed between the rolls 26 and 27 of a wringer journaled in the sides of the compartment for this purpose. The wringer comprises a shaft 28, from which extends a belt 29, engaging a pulley 30, carried by a shaft 12, the object of which construction is to enable the transmission of motion from the crank 31, carried by the shaft 12, to both the drum 11 and the wringer. A second spigot 32, arranged at the bottom of the compartment 9, enables the drainage of such compartment.

The third compartment 10 is adapted to hold clear water for the final rinsing of the clothing, a spigot therein affording means for the withdrawal of water.

It will be readily understood that I may make my device of any desired size or material and that I may vary the specific arrangement of elements thereof without departing in any way from the spirit of my invention.

Having thus described my invention, what I claim is—

In a washing-machine, the combination with a casing divided into compartments, of a drum journaled in one of said compartments, a shell for the drum consisting of a plurality of arc-shaped sections, swinging hangers for the said sections, slidable connections between the hangers and sections, springs arranged to hold the sections yieldably at the limits of their movements in the direction of the drum, rollers arranged intermediate the sections, and means for revolving the drum.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. FENIMORE.

Witnesses:
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