

L. U. LOOMIS.
WASHING MACHINE.
APPLICATION FILED JAN. 13, 1919.

1,321,381.

Patented Nov. 11, 1919.

FIG. 1.

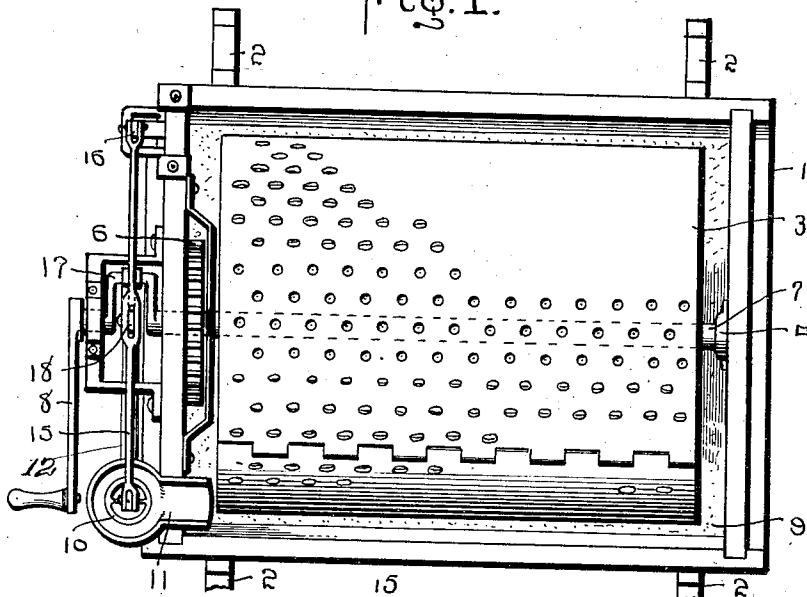


FIG. 2.

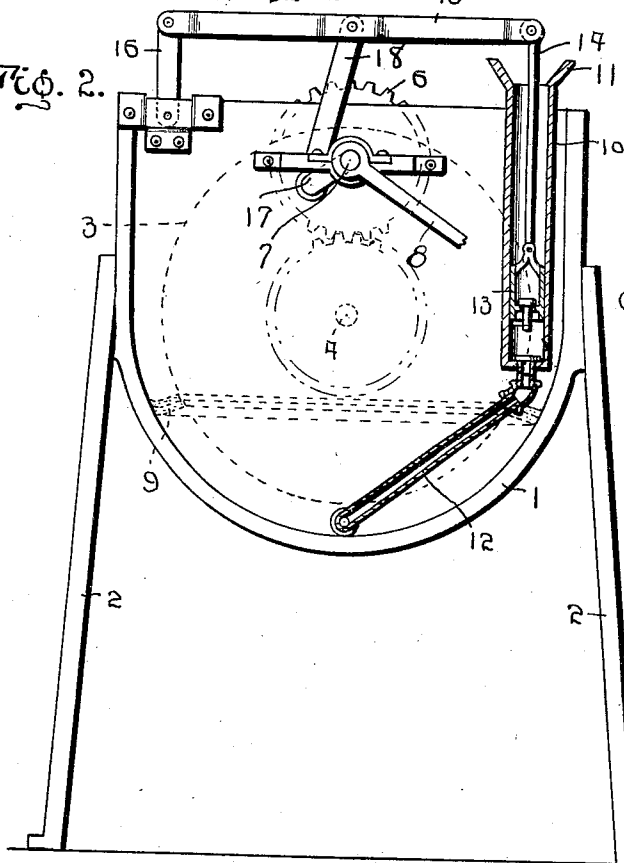
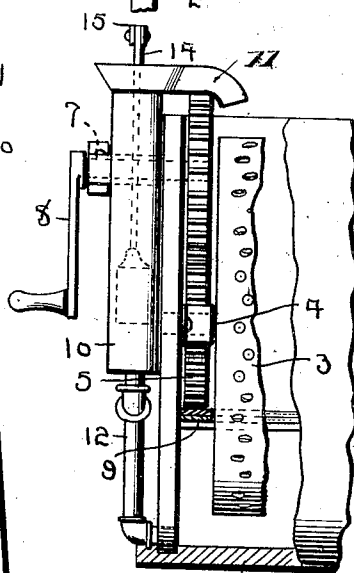


FIG. 3.



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WASHING-MACHINE.

1,321,381.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LYMAN U. LOOMIS, a citizen of the United States, residing at Philipsburg, in the county of Granite and State of Montana, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

The object of this invention is to provide a washing machine in which a stream of water will be deposited upon the receptacle containing the clothes and caused to circulate through said receptacle to expedite the cleansing of the clothes. This object and other objects which will incidentally appear in the course of the following description are attained in the use of mechanism such as is illustrated in the accompanying drawings, and the invention resides in certain novel features which will be particularly pointed out in the claim following the description.

In the drawings—

Figure 1 is a plan view of a washing machine provided with my improvements;

Fig. 2 is an end elevation of the same with parts in section;

Fig. 3 is a view of one end of the machine showing parts in rear elevation and parts in section.

In the drawings, I have illustrated a washing machine comprising a tub 1 supported on legs 2 and containing a perforated cylinder 3 which is mounted for rotation about its own longitudinal axis. In the illustrated arrangement, the receptacle is provided at its ends with trunnions or axles 4 which are journaled in suitable bearings on the ends of the tub and upon one of the said trunnions or axles is secured a gear wheel 5 meshing with a similar gear wheel 6 carried by the driving shaft 7 which is journaled in the end of the tub, the outer end of said driving shaft being provided with a crank handle 8. This arrangement permits the cylinder to be rotated so as to produce a tumbling action of the clothes, but it is to be understood that the clothes receptacle may be driven by means other than hand power and may be stationary. Within the tub between the same and the cylinder, I provide a partition 9 which may consist of rubber, leather or other flexible material supported by a strip of wood or other unyielding material and bearing against the surface of the cyl-

inder or drum through the entire length and across both ends of the same. The interior of the tub is, therefore, divided into an upper and a lower chamber and the water in the tub in order to pass from the upper chamber into the lower chamber must pass through the clothes receptacle.

In order to obtain the desired constant circulation of the water whereby it will be deposited with some force upon the drum so as to pass through the perforations of the same and work through the clothes, I provide a pump 10 on the end of the tub, the upper end of the pump barrel being equipped with a discharge spout 11 which extends over the end of the tub and is arranged so as to discharge water onto the clothes receptacle. The lower end of the pump barrel is connected with the interior of the tub at the lowest point of the same by a suction pipe 12 and a plunger 13 is mounted in the pump barrel and has its plunger rod 14 extending through and above the upper end of the barrel. The upper extremity of the plunger rod is pivoted to a lever 15, the rear end of which is pivoted to a fulcrum post 16 secured upon the end of the tub, as clearly shown in Fig. 2. The driving shaft 7 is equipped with a short crank 17 in addition to the handle 8 and the end of this crank 17 is connected by a link 18 with an intermediate point of the lever 15. It will thus be readily seen that as the driving shaft is rotated the pump will be operated.

The clothes to be washed are placed in the clothes receptacle in the usual manner together with soap, hot water or other cleansing materials. When the machine is operated the pump will draw water from the bottom of the tub and discharge it over the top of the same so that it will drop with some force upon the clothes receptacle and will, consequently, work through the receptacle and act upon the entire mass of clothes therein so as to expedite the cleansing action. The circulation will be constant inasmuch as the pump will be operated as long as the machine is in action and the withdrawal of water from the bottom of the tub will create a partial vacuum so that the water discharged into the top of the tub will be positively drawn through the clothes to act on the entire mass of the same and loosen all dirt. The water can not pass around the drum inasmuch as the partition 9 bears

against the drum across both ends and along both sides and the water must, therefore, pass through the drum and the clothes contained therein.

5 The mechanism is very simple in the construction of its parts and is compactly arranged. The improvements may be readily applied to washing machines now in use at a low cost and in operation will be found
10 highly effective. It is to be understood that the accompanying drawings are illustrative only and not restrictive and that a rotary pump may be used and the form of the tub and the clothes receptacle varied or other
15 changes made within the scope of the following claim.

Having thus described the invention, what is claimed as new is:

The combination with a washing machine
20 comprising a tub, and a clothes receptacle

mounted therein, of a partition fitting closely against the receptacle along both sides and across both ends thereof whereby to divide the tub into an upper and a lower
25 chamber, a pump mounted on the tub and arranged to discharge into the upper chamber therein, a suction pipe connecting the lower chamber with the pump, a driving shaft mounted on the end of the tub, gear-
30 ing within the tub operatively connecting the driving shaft with the receptacle whereby to rotate the same, a lever fulcrumed upon the tub at one end, a plunger within the pump connected with the opposite end
35 of the lever, a crank on the driving shaft outside the hub, and a link connecting the crank with an intermediate point of the lever.

In testimony whereof I affix my signature.
LYMAN U. LOOMIS. [L.S.]

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."