

(No Model.)

2 Sheets—Sheet 1.

B. F. HARTMAN.  
WASHING MACHINE.

No. 497,918.

Patented May 23, 1893.

FIG. 1.

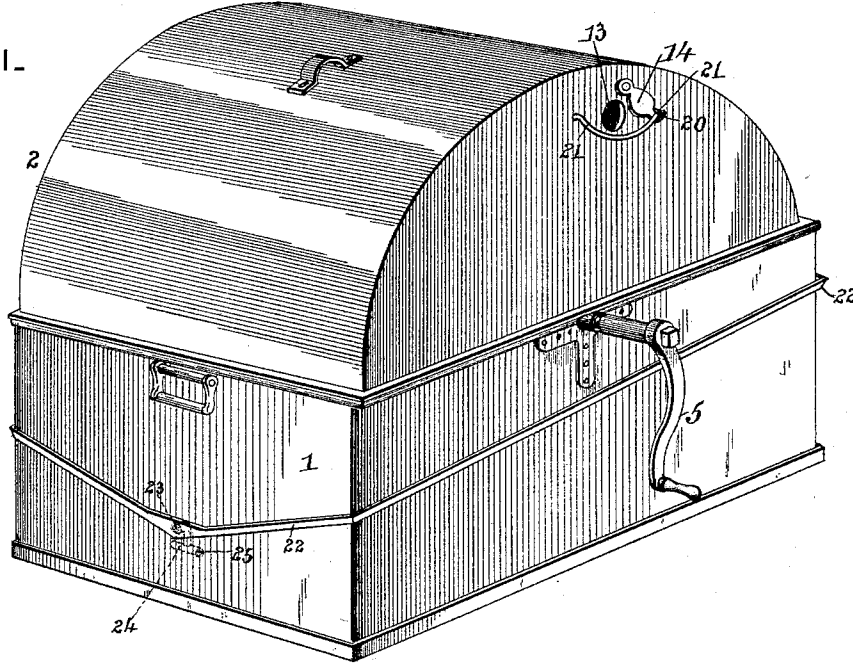


FIG. 2.

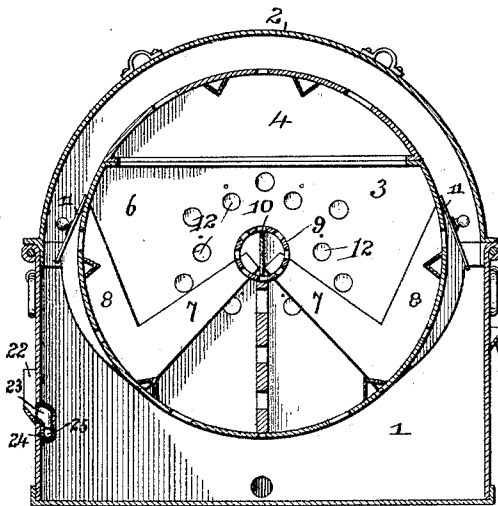
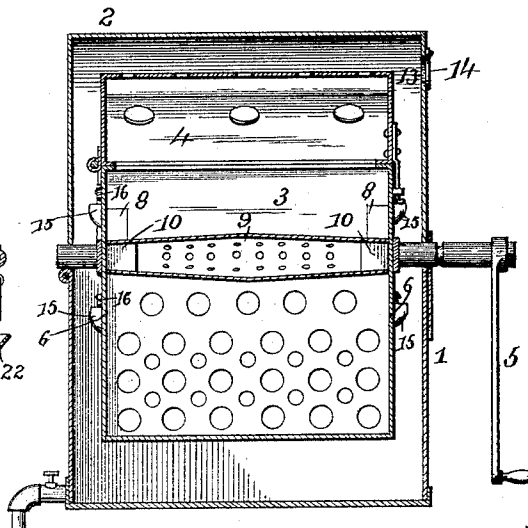


FIG. 3.



Witnesses

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FIG. 4.

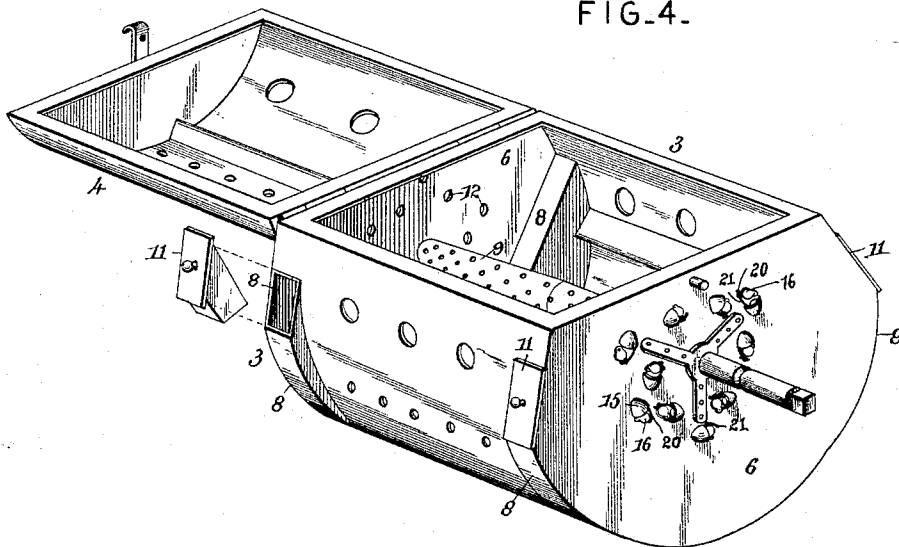


FIG. 5.

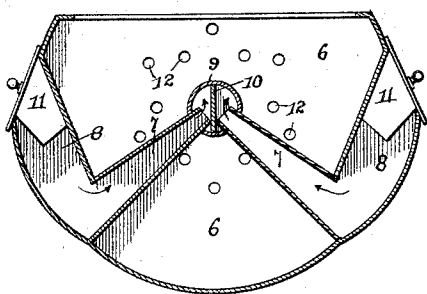


FIG. 6.

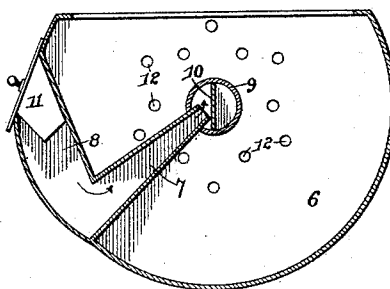
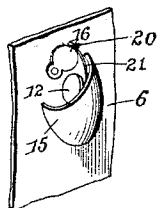


FIG. 7.



Witnesses

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# UNITED STATES PATENT OFFICE.

BENJAMIN F. HARTMAN, OF PICKERING, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 497,918, dated May 23, 1893.

Application filed June 6, 1892. Serial No. 435,686. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. HARTMAN, a citizen of the United States, residing at Pickering, in the county of Chester and State of Pennsylvania, have invented new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing machines.

10 The object of the present invention is to simplify and improve the construction of washing machines but more especially the construction of the washing cylinder, and means for conducting the overflow from the  
15 body back to the body.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed  
20 out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a washing machine constructed in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a similar view  
25 taken at right angles to Fig. 2. Fig. 4 is a detail perspective view of the washing cylinder, on a reduced scale. Fig. 5 is a detail sectional view of the cylinder illustrating the construction of the water tubes. Fig. 6 is a  
30 similar view illustrating a modification of the cylinder. Fig. 7 is a detail perspective view illustrating a vent opening with its hood and slide.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a washing machine body provided with a semi-cylindrical top or cover 2 and having journaled in it a washing cylinder 3, which has a hinged section 4, and which  
40 is adapted to be rotated by a crank handle 5 to wash clothes placed within it.

On the inner faces of the ends 6 of the washing cylinder are oppositely disposed water tubes 7, which terminate at their outer  
45 ends in buckets 8, and which taper toward their inner ends. The inner ends of the water tube 7 extend to and communicate with a horizontal perforated tube 9, and are adapted  
50 to deliver water to the perforated tube; and the latter causes the water to fall upon the clothes being washed. The perforated tube

is provided at its ends with transverse stationary partitions 10, which are disposed opposite the inner ends of the water tube to  
55 prevent water from one tube being thrown into the other. The buckets 8 are arranged at and form a portion of the periphery of the cylinder, and are adapted to collect water during the rotation of the cylinder and cause the  
60 same to flow through the water tubes 7; and removable plugs 11 are provided and are adapted to fit into and close the mouths of the buckets, so that one or more buckets may  
65 be closed to regulate the quantity of water delivered upon the clothes. The outer side of the bucket 8 is curved and extends slightly beyond the periphery of the cylinder, and the other side is straight.

Each end of the cylinder is provided with  
70 a series of openings or vents 12 through which steam is admitted and delivered on the clothes. The cover of the body 1 is provided at its top with a vent opening 13 to permit the escape of steam from the body, and a pivoted  
75 slide 14 is arranged to close the vent opening.

In Fig. 6 of the accompanying drawings is illustrated a modification of the invention in which only one tube for the introduction of  
80 water is arranged at each end of the cylinder; but it will be seen that this modification is obvious; and I desire it to be understood that I do not limit myself to the exact details of construction herein shown and described, as  
85 I may without departing from the spirit of my invention make minor changes therein.

The clothes to be washed are placed in the cylinder which is rotated as water and steam are forced through the clothes thereby re-  
90 moving dirt and stains.

There are two rows of the openings 12 at each end of the cylinder, and each one is provided with a hood 15 to catch the steam and cause the same to enter the opening, and it is  
95 provided with a slide 16 adapted to close the opening to regulate the amount of steam and admit it into the cylinder. The hoods of the outer row of openings 12 are disposed opposite the inner row so that some of the hoods  
100 will be in position to catch the steam when the cylinder is rotated or reversely rotated.

The slides 14 and 16 are each pivoted at one end and are provided at the other end with a

curved arm 20 which forms a handle by means of which the slide may be operated to open or close the vent opening; and the handle is arranged in a curved keeper 21 which is arranged adjacent to the slide and prevents the said slide being broken.

The overflow from the boiler or body of the washing machine is caught in a gutter 22 extending around the sides and ends of the body and having a general inclination toward one end of the latter; and the overflow is returned into the body through an opening 23 and a depending inverted T-shaped tube 24 provided at the ends 25 with perforations, which being arranged at the ends of the horizontal portion of the tube cannot have the water from the boiler forced into them by the rotation of the cylinder. This construction not only prevents the waste of water, but it also dispenses with the inconvenience of emptying drip buckets, and there may be a continuous overflow without spilling any water.

What I claim is—

1. In a washing machine, the combination of a body, a washing cylinder, a perforated axial tube arranged within the cylinder and provided at its ends with stationary diametrically arranged partitions, and the tapering water tubes arranged at the ends of the cylinder and having their inner ends communicating with the perforated tube and located opposite the stationary partitions and provided at their outer ends with angularly disposed buckets, substantially as described.

2. In a washing machine the combination

of a body, a washing cylinder, a perforated axial tube arranged within the cylinder and provided at its ends with stationary diametrically arranged partitions, the tapering water tubes arranged at the ends of the cylinder and having their inner ends communicating with the perforated tube and located opposite the stationary partitions and provided at their outer ends with angularly disposed buckets, and plugs adapted to close the mouths of the buckets to regulate the amount of the water delivered upon the clothes, substantially as described.

3. In a washing machine, the combination of a body, a cylinder mounted therein and provided at its ends with openings, hoods arranged over the openings and slides arranged to close the openings, substantially as described.

4. A washing machine body provided on its outside with a gutter and having an opening communicating therewith and provided with an inverted T-shaped tube having its upper end arranged at the opening and provided with perforations, located at the ends of the horizontal portion of the tube substantially as described.

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

B. F. HARTMAN.

Witnesses:

JENNIE R. HARTMAN,  
SAMUEL WILSON.