No. 886,168

PATENTED APR. 28, 1908.

L. M. ADAMS.

CLOTHES WASHING MACHINE.

APPLICATION FILED MAY 29, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

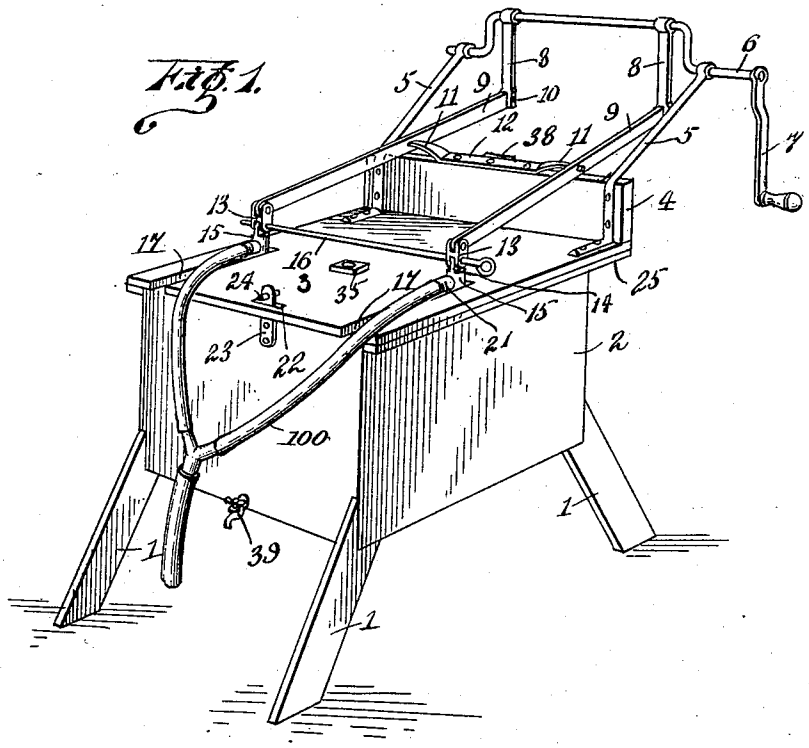


Fig. 2.

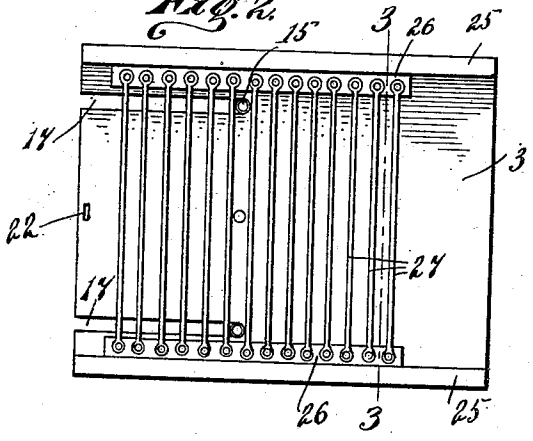
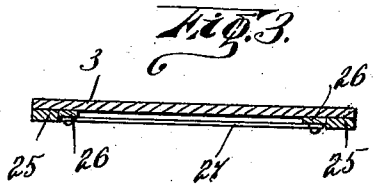


Fig. 3.



Witnesses:

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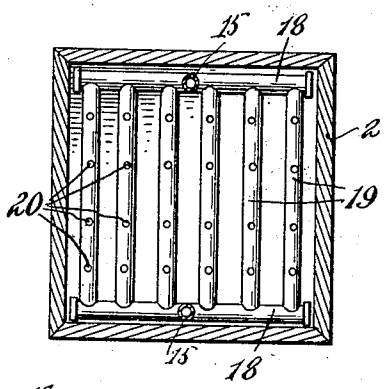
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2 SHEETS—SHEET 2.

Fig. 4.



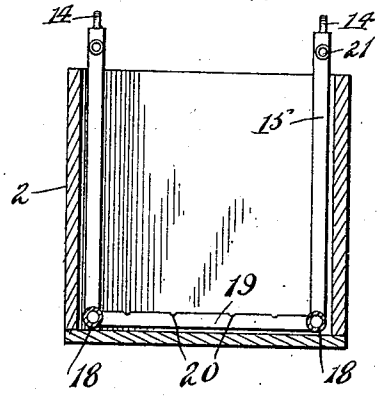


Fig. 5.

Fig. 6.

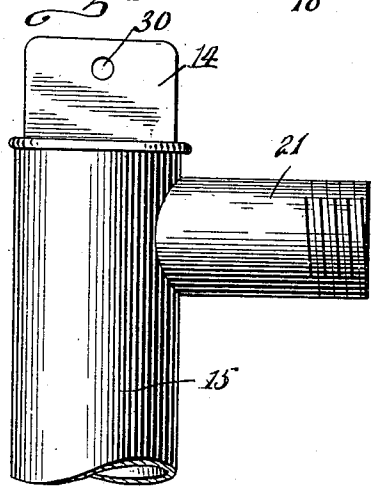


Fig. 7.

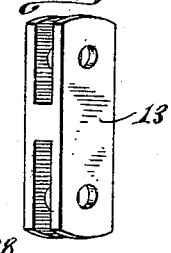
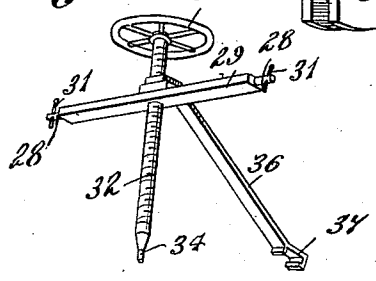


Fig. 8.



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UNITED STATES PATENT OFFICE.

LAWRENCE MELVILLE ADAMS, OF FORT STEELE, BRITISH COLUMBIA, CANADA.

CLOTHES-WASHING MACHINE.

No. 886,168. Specification of Letters Patent. Patented April 28, 1908.

Application filed May 29, 1907. Serial No. 376,237.

To all whom it may concern:

Be it known that I, LAWRENCE MELVILLE ADAMS, a subject of the King of Great Britain, residing at Fort Steele, county of Kootenay, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Clothes-Washing Machines; and I do hereby declare that the following is 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 clothes washing machines; the object of my invention is to provide a machine in which the clothes may be subjected to an agitating action without tearing the same; a further object is to provide means for subjecting the clothes to the action of moving steam admitted at the bottom of the apparatus and working upward; a further object is to provide means for resiliently mounting the agitating members so as to not tear the clothes operated upon; a further object is to provide means for expressing the moisture from the clothes; and, my invention consists of the construction, combination and arrangement of parts, as herein illustrated, described and claimed.

In the accompanying drawings, forming part of this application, I have illustrated one form of embodiment of my invention, in which drawings similar reference characters designate corresponding parts, and in which:

Figure 1 is a perspective view, with the moisture expressing members removed; Fig. 2 is an inverted plan view of the cover of the apparatus; Fig. 3 is a transverse vertical section through the cover, taken approximately on line 3—3 of Fig. 2; Fig. 4 is a horizontal section through the body of the apparatus, showing the steam distributing means in plan; Fig. 5 is a vertical section taken through the body of the apparatus, and showing the steam distributing means partly in section and partly in side elevation; Fig. 6 is a fragmentary detail in side elevation of the upper end of one side of the steam distributing and agitating means; Fig. 7 is a fragmentary detail in perspective of a connecting link; and, Fig. 8 is a perspective of the moisture expressing actuating means.

Referring to the drawings, 1, 1 designate supporting members, on which is disposed an approximately rectangular receptacle 2, having an open upper end, closed by a cover 3. The cover 3 adjacent its rear end, is provided with a vertical flange 4.

Carried by the cover 3 and the flange 4, are upwardly and backwardly inclined hangers 5, in the upper ends of which is journaled a crank shaft 6, having a handle 7 thereon, by means of which it may be rotated. Loosely disposed on the crank shaft 6 are links 8, having their lower ends bifurcated to receive the upper ends of levers 9, said levers being pivotally connected to the lower ends of the links 8, as by means of pins 10. Intermediate of their ends, the levers 9 are pivotally disposed on the spring fingers 11 of a member 12 secured on the upper face of the vertical flange 4.

Pivoted to the lower ends of the levers 9, are links 13. Ears 14 are formed on the upper ends of steam conducting plunger pipes 15, and these ears 14 are disposed in the lower ends of the links 13 and are removably retained by means of the pin 16, which is long enough to serve for both sides of the machine. The plunger pipes 15 extend through the slots 17 formed in the cover 3, and at their lower ends are connected to headers 18, and the headers are connected by transverse steam pipes 19 provided with perforations 20 on their upper surfaces. Steam may be admitted from any suitable source of supply to either or both of the pipes 15 by means of the hose 100 connected to pipes 21, and when only one pipe 21 is used, a single line hose will be attached to it and the superfluous steam not passing through the perforations 20 will be conducted outside of the receptacle 2 through the opposite pipe 21.

The forward end of the cover 3 is provided with an opening 22, through which projects a tongue 23 secured on the forward face of the receptacle. Removably disposed through the tongue 23 is a pin 24, adapted to retain the cover 3 in closed position.

In the operation of the machine, the pin 16 is removed, and the cover lifted from the receptacle. The clothes to be washed are disposed on the rack formed by the headers 18 and pipes 19. The cover is then replaced in position, and the links 13 connected to the shoulders 14 by means of the pin 16. Steam is then admitted through the pipes 21, and the rack or plunger formed by the pipes 18, 19 and 15 is given a vertical reciprocatory movement by turning the handle 7, which causes rotation of the crank shaft 6. Rota-

tion of the crank shaft 6 causes the reciprocation of the pipes 15 through the medium of the levers 9, which are resiliently mounted as stated to prevent tearing of the clothes.

The cover 3 is provided with longitudinal strips 25, adapted to fit closely against the sides of the receptacle 2, and disposed on the under face of the cover 3 are longitudinal strips 26, to which are secured the opposite ends of bars 27. To express the moisture from the clothes, a board is disposed across the bars 27, and the links 13 disconnected from the shoulders 14. The reduced ends 28 of a cross bar 29 are then introduced into the openings 30 of the shoulders 14, and are retained therein by means of the pins 31. Carried by the bar 29 is a screw 32, having a hand-wheel 33 on its upper end, and having a reduced lower end 34 adapted to enter the plate 35 carried by the upper face of the cover 3. The bar 29 is further supported by a brace 36, provided at its lower end with a slot 37, in which is adapted to engage the lug 38 formed on the rear side of the member 12 secured on the flange 4, by means of which the bar 29 is held in operative position. The screw 32 being operated by means of the hand wheel 33, the upper ends of the plunger pipes 15 will be elevated, and the rack formed by the pipes 18 and 19 will be brought toward the under surface of the cover 3, so that the clothes contained in the receptacle will be compressed, and the moisture expressed therefrom.

A suitable decanting cock 39 is adapted to permit the escape of the fluid from the receptacle 2.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

In combination, in a washing machine a casing, a hollow perforate plunger disposed in the casing and having projecting side members, levers, a member secured to the casing and provided with spring fingers inserted through the levers, means for removably securing the lower ends of the levers to the side members of the plunger, and means for rocking the levers.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

LAWRENCE MELVILLE ADAMS.

Witnesses:
E. C. MILLER,
B. W. WERDEN.