

(No Model.)

2 Sheets—Sheet 1

Z. M. LINDLEY.
WASHING MACHINE.

No. 568,361.

Patented Sept. 29, 1896.

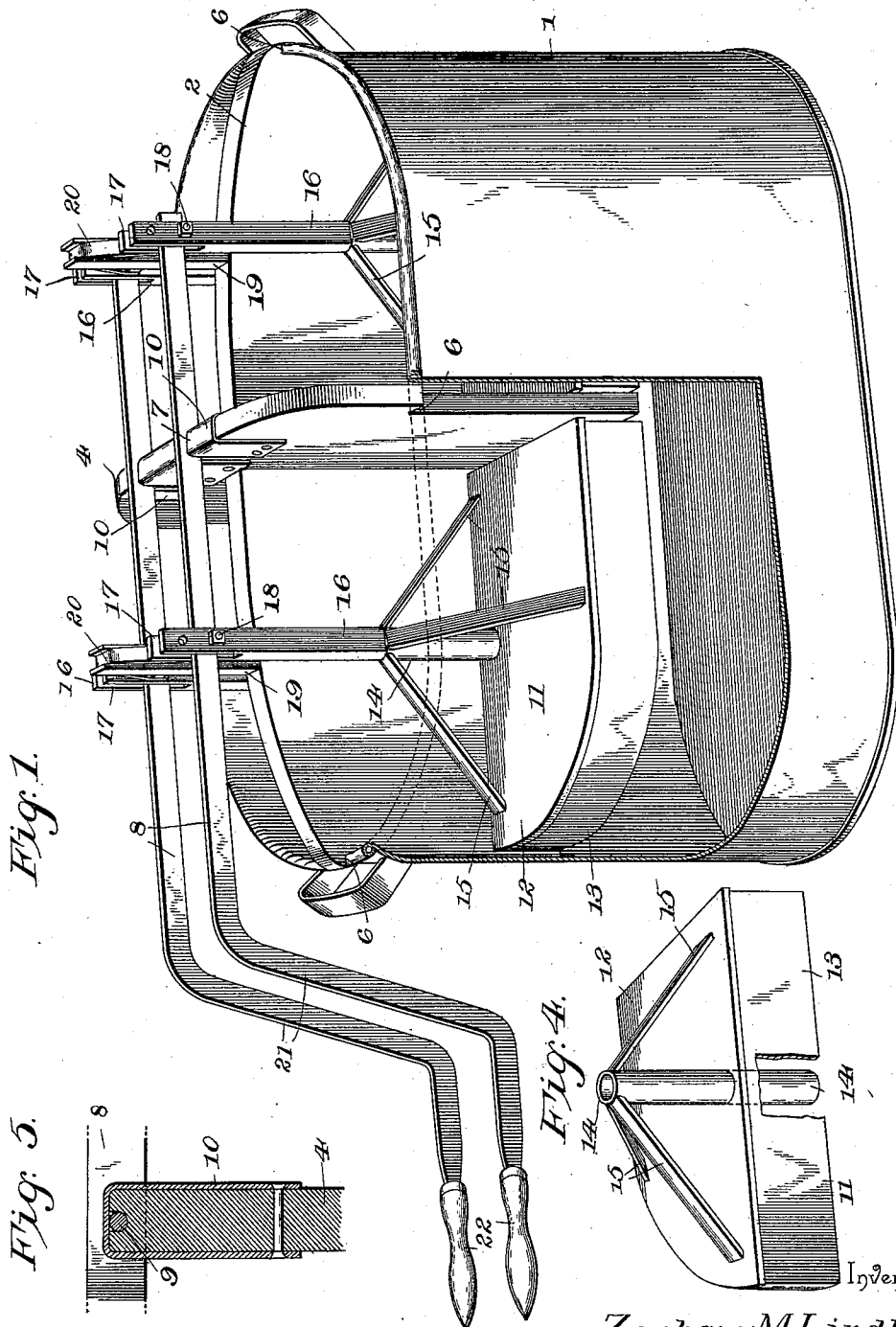


Fig. 1.

Fig. 4.

Fig. 5.

Witnesses

Chas. A. Ford.
R. M. Smith.

By his Attorneys.

Zachary M. Lindley.

C. A. Snow & Co.

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2 Sheets—Sheet 2.

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Fig. 3.

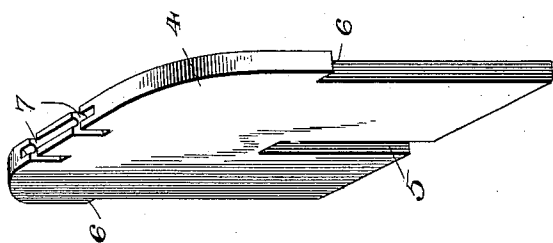
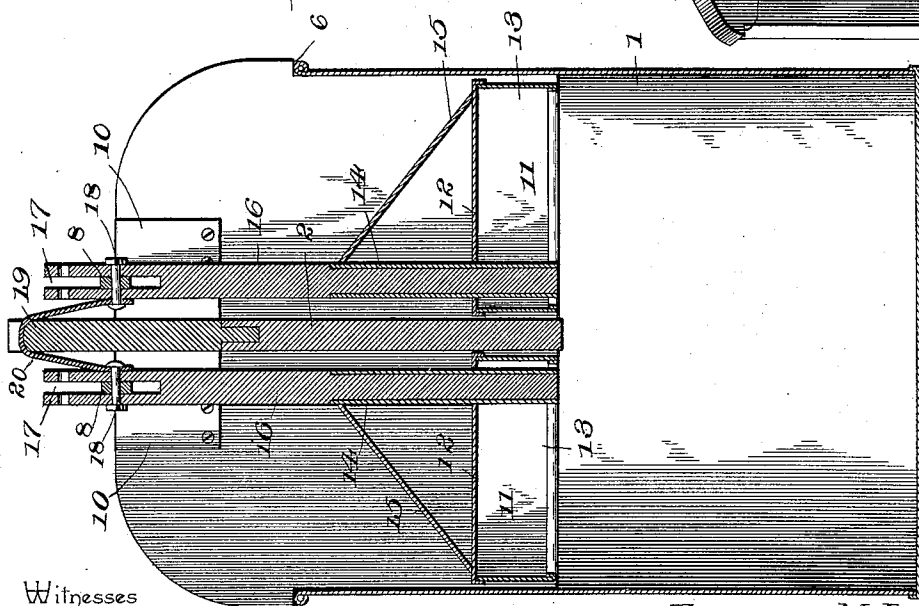


Fig. 2.



Inventor

Witnesses

Chas. A. Ford.
R. M. Smith

By his Attorneys, Zachary M. Lindley

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ZACHARY M. LINDLEY, OF CARTHAGE, MISSOURI, ASSIGNOR OF THIRTEEN-SIXTEENTHS TO LLOYD J. DOUGLASS, WILLIAM H. STERRETT, AND B. M. HICKEY, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 568,361, dated September 29, 1896.

Application filed March 16, 1895. Serial No. 542,045. (No model.)

To all whom it may concern:

Be it known that I, ZACHARY M. LINDLEY, a citizen of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to an improvement in washing-machines.

The object of the present invention is to simplify and improve the construction of washing-machines and to provide one which shall rapidly and thoroughly effect the washing of clothes without in any wise injuring the fabric, which shall be inexpensive in construction, durable in practice, and easy of manipulation.

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

In the accompanying drawings, Figure 1 is a perspective view of the washing-machine constructed in accordance with my improvements, a portion of the inclosing case or wall being broken out to show the interior construction. Fig. 2 is a transverse section through the same. Fig. 3 is a detached perspective view of the two parts of the double partition, showing the manner in which they interlap. Fig. 4 is a detail perspective view of one of the plungers or heads. Fig. 5 is a longitudinal section through the transverse partition-board, showing the manner of securing the pivotal bolt for the operating-levers.

Similar numerals indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 indicates a washboiler of any ordinary or preferred construction, the one shown being of the common elongated or elliptical form adapted to cover two lids of an ordinary range. 2 indicates one of the divider-boards of my improved double partition, which is provided centrally with a notch or open slot 3, opening downward from the upper edge thereof, the other board 4 of the double partition being also centrally provided with a notch or open slot 5, extending upwardly from the lower edge

thereof. By means of the notches or slots 3 and 5 the two boards forming the double partition are adapted to embrace each other and interlap in such manner that their lower edges will be coincident or in the same horizontal plane. In order to limit the downward movement of the double partition, each section thereof is provided with suitable horizontal shoulders 6, which rest upon the upper edge of the boiler, thereby supporting said double partition and the washing apparatus carried thereby in proper position.

The shorter or transverse partition-board is provided in its upper edge with two notches or slots 7 for the reception of two parallel levers 8. The upper edge of said partition-board is further provided with a recess or depression for the reception of a pivotal pin 9, on which said levers are hinged, the pin 9 being held in place and prevented from escaping by means of straps 10, passing over the upper edge of the partition and secured upon the sides thereof in any suitable manner.

The plungers or heads 11 are four in number and correspond in general shape to the spaces which they occupy between the two partition-boards and the inner wall or face of the boiler. Each plunger comprises a top plate 12 and a surrounding pendent flange 13, both of imperforate sheet metal. A long hollow sleeve or tube 14 extends from the lower edge of the pendent flange 13 through the upper plate 12 of the plunger, and thence upward a considerable distance, where it is firmly supported at or near its upper edge by means of inclined braces 15, secured thereto and to the upper plate 12 of the plunger, as indicated in the drawings. The construction described constitutes a very strong form of plunger and perfectly adapts it to receive the lower end of the plunger-stem 16, which supports and drives said plunger.

The plunger-stems 16 are each provided at the upper end with a vertical open slot 17, which embraces one or the other of the levers 8. The upper slotted end of the plunger-stem is provided with a series of perforations, through any one of which a bolt 18 is adapted to pass for pivotally connecting said stem and lever. By means of such series of per-

forations the height of the plungers may be regulated to suit the amount of clothes to be washed contained in the boiler.

In order to regulate the motion of the several plungers and to impart to said plungers a perfect opposite oscillation, posts or standards 19 are secured to the upper edge of the longitudinal partition-board 2, and are provided in their upper ends with depressions or grooves for the passage of suitable leather straps 20, the opposite ends of which are secured to the inner adjacent faces of the stems 16 on opposite sides of the posts or standards 19. By this means, as the front end of one lever is depressed, it pulls down upon the strap 20, thereby causing said strap to elevate the corresponding end of the other lever, and vice versa, in a manner that will be readily understood. The levers 8 are bent downwardly, as indicated at 21, outside of the boiler, and provided with convenient handles 22 for operating the same.

By means of the construction above described an even and regular alternate oscillation is given to the plungers 11, whereby two of said plungers are elevated simultaneously with the depression of the other two. It is important that the relative movements of the two sets of plungers should be uniform, in order that the space vacated by one set of plungers may be instantly occupied and taken up by the other set, thereby preventing splashing, and rendering the device smooth and regular in its operation. The greatest advantage of this particular arrangement of the plungers is that by operating such plungers in diagonally-disposed pairs a more thorough agitation of the suds is attained, and the suds and water are drawn by one set of plungers and forced or projected by the other set through the clothing in the boiler more effectively than in the ordinary construction of washing-machines, wherein but two opposing plungers are employed, and the clothing is held comparatively still by

reason of there being an equal pressure and suction administered thereto.

It will be seen that the washing-machine above described is comparatively simple and inexpensive in construction, positive, reliable, and uniform in operation, capable of thoroughly and rapidly cleansing the fabrics without injury thereto, and that it may be readily adjusted to suit the quantity of clothes to be washed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

In a washing-machine, the combination with a washboiler, of the longitudinal and transverse partitions mounted within the washboiler and dividing the same into separate compartments, a pair of longitudinally-disposed operating-levers fulcrumed intermediate of their ends on the transverse partition and located at opposite sides of the longitudinal partition, plungers arranged in pairs and located in the said compartments and pivotally connected to the operating-levers, posts mounted on the longitudinal partition and located between the pairs of plungers, and the transversely-disposed straps located at opposite sides of the transverse partition and passing over the posts and having their terminals connected with a plunger of each of the operating-levers, whereby the adjacent plungers are reversely reciprocated, 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.

ZACHARY M. LINDLEY.

Witnesses:

H. C. HEFLEY,
F. B. NORTON.