(Model.) 2 Sheets—Sheet 1.

D. C. JORDAN.

POUNDER WASHING MACHINE.

No. 347,716. Patented Aug. 17, 1886.

Fig. 3.

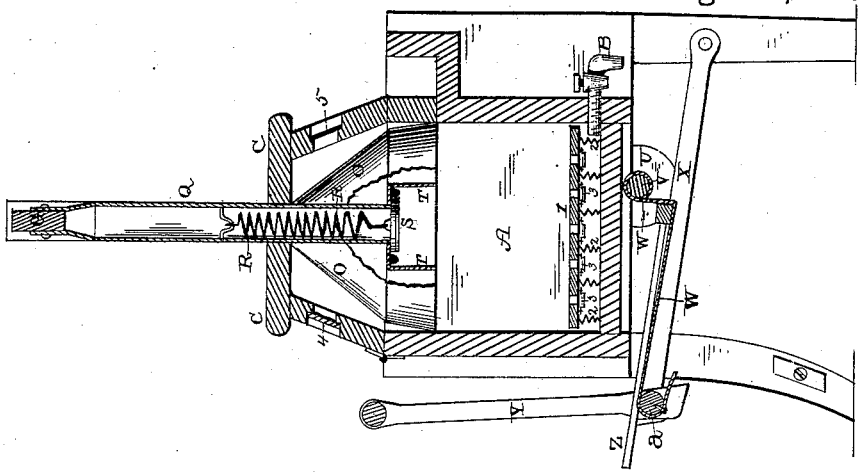


Fig. 2.

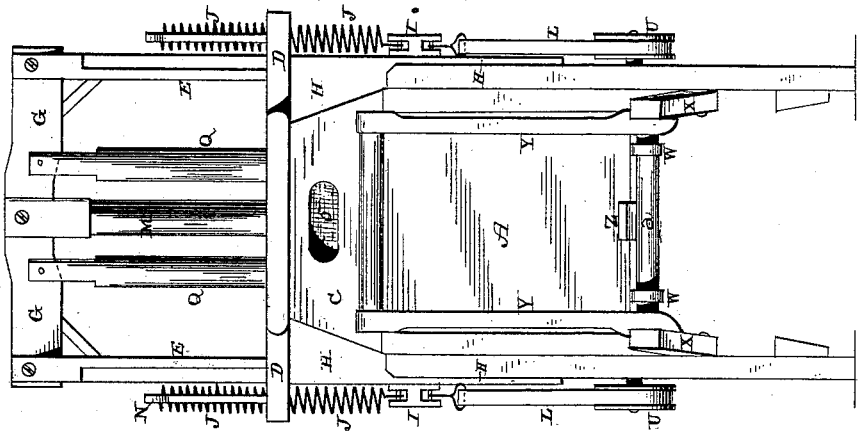
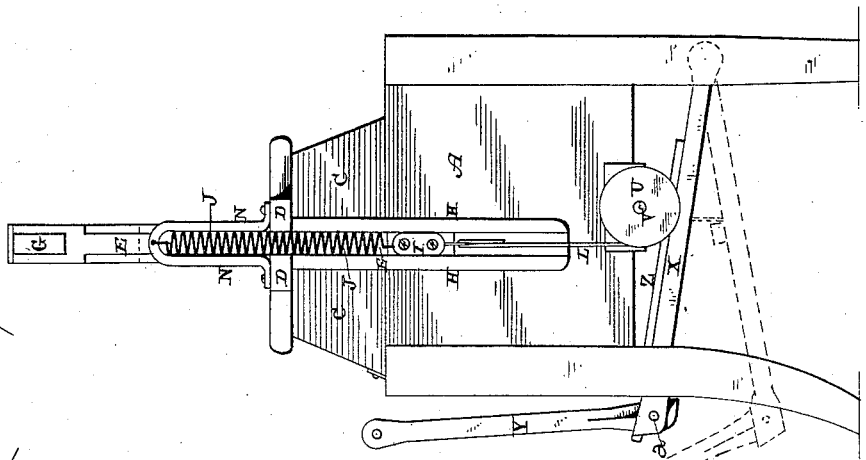


Fig. 4.



Witnesses.
L. F. Gardner
A. H. Brecht.

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per F. A. Lehmann,
Atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

(Model.) 2 Sheets—Sheet 2.

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Fig. 4.

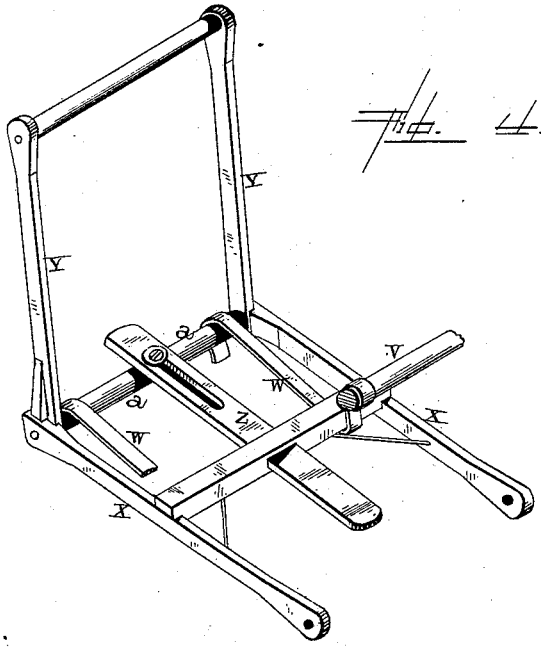
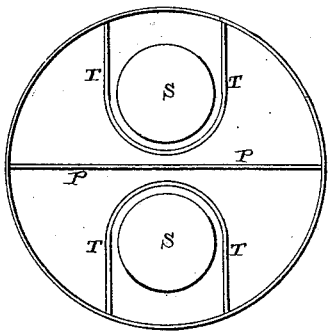


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID C. JORDAN, OF DAVID CITY, NEBRASKA.

POUNDER WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 347,716, dated August 17, 1886.

Application filed April 15, 1886. Serial No. 198,961. (Model.)

To all whom it may concern:

Be it known that I, DAVID C. JORDAN, of David City, in the county of Butler and State of Nebaska, have invented certain new and useful Improvements in Pounder 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in pounder washing-machines; and it consists in the combination of the pounder with the spring-actuated cross-head, to which the pounder is connected, the straps connected to the lower portions of the cross-head, a shaft journaled under the body of the washer, the levers connected to the shaft by means of the straps and the hand-levers, and treadle, which is connected to the operating-levers, all of which will be more fully described hereinafter.

Figures 1 and 2 are side elevations of a washing-machine embodying my invention, taken at right angles to each other. Fig. 3 is a vertical section. Fig. 4 is a detail view of the operating levers and treadle. Fig. 5 is a bottom view of the pounder.

A represents the tub or box in which the clothes are placed to be washed, and which is provided with a faucet, B, for the purpose of drawing off the water whenever so desired. Hinged to this box A is the cover C, which has the ends D of its top extended so as to form guides for the vertically-sliding uprights E, which are connected to the cross-head C. Secured to the under side of the top of the cover are the vertical guides H, which are grooved on their outer sides, so as to guide the vertically-moving slides E in their movements, and to keep them always from having any other than an endwise-sliding movement. Connected to the lower ends of these vertically-moving slides or uprights E are the blocks I, to which the springs J and the straps L are fastened. The upper ends of the springs J are fastened to the U-shaped supports N, which are fastened upon the tops of the cover, and which serve to support the springs. These springs J serve to always move the vertically-moving slides E and the cross-head G back into position whenever they are free to move, after they have been depressed so as to force the pounder down upon the clothes. As long as the straps L are not connected to the lower ends of the blocks I on the lower ends of the vertically-moving slides E, the cover C can be thrown back from over the top of the tub to its full extent, and hence, when it is desired to throw back the cover for any purpose, the cross-heads and slides should first be forced downward and then the straps L disconnected, when the cover can be turned freely back.

Connected to the cross-head G, and passing down through the top of the cover C, is the solid handle or pounder-rod M, which has the pounder O connected to its lower end. This pounder O is preferably made circular in shape, and is divided into two separate and distinct parts by means of the vertical partition P, which extends across its center. To each one of these parts of the pounder is connected an atmospheric tube, Q, inside of which is placed a coil-spring, R, which keeps a suitable valve, S, pressed up against the lower end of the tube Q, so as to prevent the air from escaping upward through the tube when the pounder is depressed upon the clothes. When the pounder is lifted upward by the springs J, these valves are forced downward by the pressure of the atmosphere just enough to allow air to be admitted into the two chambers of the pounder, and thus destroy the partial vacuum which has been formed therein.

Each one of the valves S has a circular vertical partition, T, placed around it, for the purpose of preventing the valve from becoming displaced, and to prevent the clothes from working up into the pounder, so as to interfere with the action of the valve. This partition T has perforations made through its upper portion, so that the air contained therein will communicate freely with the other portion of the chamber. When this pounder O is forced down upon the clothes, a portion of the air contained in its chambers becomes displaced by being forced downward through the clothes, and hence a partial vacuum is formed in the chambers in the pounder. As soon as the pounder is left free to move, the springs J raise it upward out of contact with the clothes and above the top of the water, and as it rises upward the valves S open,

so as to allow air to pass through the tubes Q, and thus destroy the partial vacuum which has been formed and make the pounder easier to raise. A double pounder is used, as here shown, because a more perfect and complete action is obtained than can be done where only a single chamber is used.

The straps L are wrapped one or more times around the pulleys U on the end of the shaft V, which extends across the under side of the wash-tub, and is supported in suitable journals prepared for it. Around this shaft V are passed two other straps, W, which are fastened at their outer ends to the connecting-rod which unites the two pivoted levers together. These levers X are pivoted between two of the legs, and project forward far enough to project beyond the legs upon the opposite side. These levers are sufficiently braced and connected together so as to move as one. To the outer free ends of the levers X, and pivoted upon the cross-bar *a*, which unites their two ends together, is the hand-lever Y, which projects up to any suitable distance within ready reach of the operator. Also connected to the cross-pieces which unite the two levers X together is the sliding slotted adjustable treadle Z, which can be brought into use when it is desired to use one foot at the same time with the hands.

The operator, taking hold of the lever Y and placing one foot upon the outer end of the treadle Z, can force the pounder downward upon the clothes with any desired amount of force. The moment this downward pressure is released from the levers X the springs J at once raise the pounder upward, ready for another downward stroke. The tub being closed by the cover C, and made water-tight by means of any suitable packing, there is no splashing of water upon the operator or upon the floor.

In the bottom of the tub or box is placed a perforated zinc bottom, 1, which is placed upon a suitable number of springs, 2. Under each one of the perforations in the bottom is placed a valve, 3, which valves, when the bottom is forced downward by the pounder, instantly close upward against the bottom 1, so as to prevent any passage of water through the bottom at these points. The water then passes up from around the edges of the bottom and through the clothes. As the bottom flies back into position as the pounder ascends, the valves drop back into position, and the water passes freely through the perforations in the bottom. By this construction a yielding bottom is formed for the clothes to rest upon, and a means provided for forcing the water up from the bottom of the tub over the top of the clothes.

Through the top on one side is made a window, 4, and through the opposite side of the cover is made an opening, 5, which is covered by a wire screen. Through this opening 5 the steam and all surplus water and foam pass out, and then run back into the top at the wringer-opening.

Having thus described my invention, I claim—

1. The combination of the vertically-moving cross-head, the slides connected thereto, the pounder, the guides H, for the slides E to move in, the casting N, the springs J, the straps L, the shaft V, straps W, and levers X, substantially as described.

2. The combination of the tub, the pounder, and a valved spring-actuated bottom which is placed in the tub, substantially as specified.

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

DAVID C. JORDAN.

Witnesses:

E. R. GREEN.

J. W. MCLOUD.