J. Haines,

Washing Machine,

No. 7,070. Patented Feb. 5, 1850.

Fig. 1.

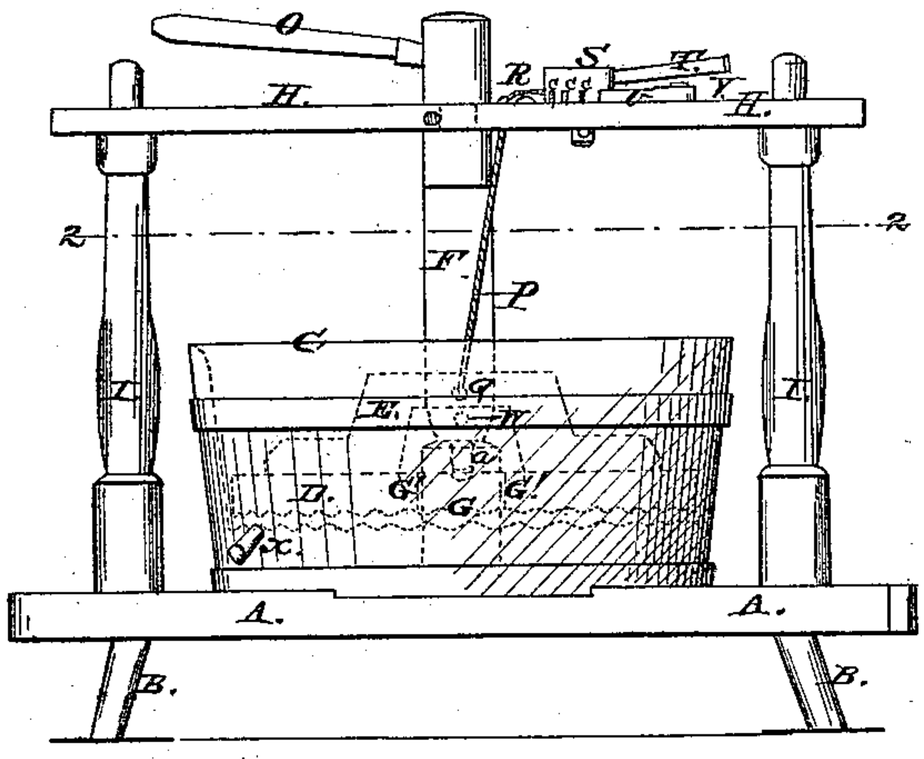


Fig. 2.

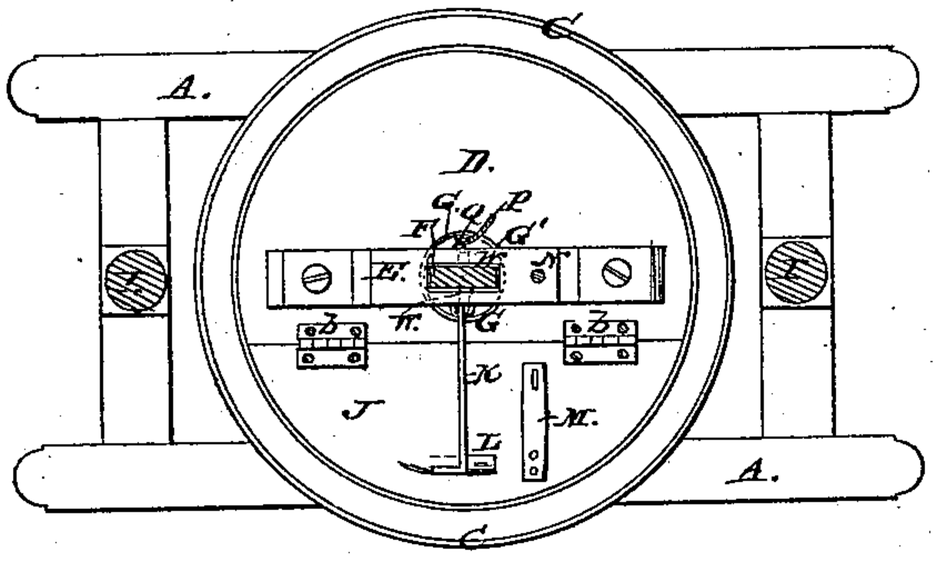
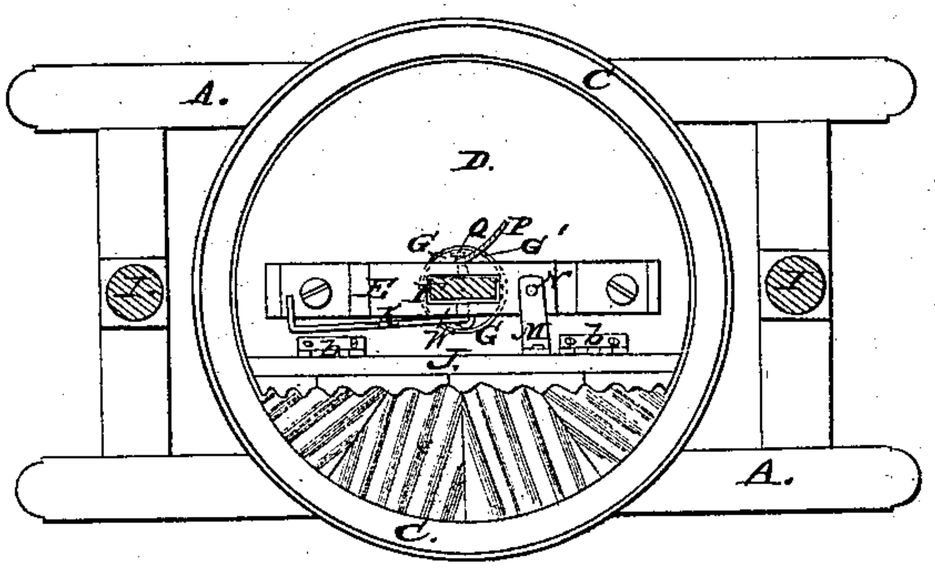


Fig. 3.



UNITED STATES PATENT OFFICE.

JOEL HAINES, OF WEST MIDDLEBURGH, OHIO.

WASHING-MACHINE.

Specification of Letters Patent No. 7,070, dated February 5, 1850.

Be it known that I, JOEL HAINES, of West Middleburgh, in the county of Logan and State of Ohio, have invented a new and useful Improvement on Machines for Washing Clothes, called the "Buckeye Clothes-Washer," which is described as follows, reference being had to the annexed drawings, of the same, constituting part of this specification.

Figure 1, represents an elevation of the side of the machine—the alternating disk being also shown by dotted line. Fig. 2, is a horizontal section at the line 2, 2, of Fig. 1, the hinged segment of the disk rubber being in a horizontal position and secured. Fig. 3 is a similar section to Fig. 2 the hinged segment of the disk rubber, being elevated, to introduce clothes to the space beneath the disk.

Similar letters in the several figures indicate similar parts of the machine.

This machine consists of a frame A, mounted upon four legs B, for supporting the wash tub C whose bottom is composed of separate segments each segment being ribbed or fluted in parallel lines. D is a horizontal alternating disk rubber whose surface next to the bottom of the wash tub is also fluted or ribbed in parallel lines. This alternating disk rubber is attached to the lower end of a central shaft, by means of a bale E, secured to the upper side of said disk rubber, between which and the bottom of the wash tub, the clothes are pressed, agitated, and rubbed.

F, is the central shaft having its lower portion reduced to the form of a parallelogram; or as shown in Figs. 2 and 3, fitting loosely in a corresponding opening in the connecting bale E, fastened to the disk rubber by which it is caused to alternate with the shaft to which it is attached and at the same time permitted to rise and fall over the shaft. On the supporting end of this central shaft is a gudgeon (*a*) (Fig. 1) which fits and turns in an aperture formed in a central stud G, projecting from the bottom of the wash tub above the disk rubber D, through an opening G′ therein, by which the central shaft is supported, and its disk rubber permitted to have a reciprocal action upon the clothes. The upper end of the central shaft is confined in a movable cap beam H, supported by two end posts I I raised upon the frame A.

J, is a segment of the alternating disk rubber connected by hinges (*b b*,) for the purpose of being raised in order to place the articles being washed between the ribbed or fluted surfaces of the disk D, and the wash tub C. This hinged segment is held in its horizontal position upon the clothes during the operation by means of a brace or holding rod K, having one end attached to the bale E, and its other bent at right angles, and made to bear upon, and against the shoulders of a recess L, formed in said segment as shown in Fig. 2, and is held in its raised position by means of a strap M, secured thereto and looped over a pin N, in the top of the bale E, as shown in Fig. 3. The upper end of the central shaft is extended above the movable cap beam H, to receive a handle O which the operator lays hold of to actuate the disk rubber on the clothes P, is a cord, secured to the bale E, by a pin Q, and is passed over a small pulley R fixed in the cap beam H, near the shaft, and is attached to the periphery of a drum or pulley S, around which said cord P is also wound to raise the disk rubber at pleasure said drum or pulley S, being provided with a handle T, by which it is turned to wind up or lower the disk D, and also having a series of notches (*c c*) in its periphery near its lower edge into which a pawl U, is placed when desired to hold the disk rubber D in an elevated position. The pawl U being fastened upon the cap beam by a bolt V, on which it turns. There is a pin W, projecting on either side of the central shaft at its lower end, which comes in contact with the underside of the bale, when the body of clothes are light and of a fine nature, for suspending the disk rubbers to the central shaft and thus partially taking off its pressure from the clothes, as well as for connecting the disk with said shaft, in removing the same from the wash tub.

X is a plug inserted into an aperture in the side of the wash tub through which the dirty water is allowed to pass after the operation.

The manner of using this machine is as follows: The central shaft F with its disk rubber D, being properly secured in the wash tub, and to the cap beam H, and the horizontal disk rubber elevated and suspended by the cord P and pawl V, the hinged segment J is then raised and held by the strap M, looped to the pin N. The clothes are then placed upon the bottom of

the tub, the disk rubber, with its raised segment J being moved around until the bottom of the wash tub is covered with a sufficient number of pieces of clothes. A suitable quantity of water with soap is then put therein, and the pawl U, disengaged from the notches of the pulley or drum S, and the horizontal disk rubber lowered upon the clothes and the hinged segment secured by the brace rod K. The operator now lays hold of the handle O, of the central shaft F and with a slight exertion of the right arm imparts a reciprocal action to the disk rubber upon the clothes, the pressure caused by the gravity of the disk rubber serving to squeeze or press the clothes and at the same time acting as a semi-revolving rubber which agitates and passes over the clothes in a partially spread condition, and completely separating the dirt therefrom without injuring the clothes,—and also preventing their being rolled into a pile as in other machines for a similar purpose. Should the clothes have been very dirty the first water may be let off through the aperture in the wash tub and a clean supply put therein and the same clothes undergo another operation or rincing. The disk rubber is then elevated, and its hinged segments also raised and secured, and the water discharged by withdrawing the plug X and the clothes removed therefrom sufficiently clean to be wrung and dried.

The action of the alternating disk J, upon the clothes may be increased or diminished by increasing or diminishing the quantity of water in the tub or by adding weight to the disk.

I do not claim the tub, nor do I claim fluted rubbers for cleaning clothes, or any of the parts heretofore used for washing clothes, but

What I do claim is—

Making the disk with a hinged segment to admit the clothes beneath the same; being so arranged as to rise and fall vertically as it is turned horizontally over the clothes by turning the vertical rock shaft to the right and left as described.

In testimony whereof I hereunto signed my name before two subscribing witnesses.

JOEL HAINES.

Witnesses:
A. E. H. Johnson,
Thos. Dennison.