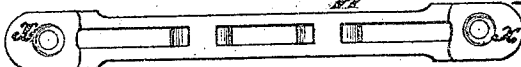


Patented Sep. 10, 1872.



AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

AMOS RICHARDSON, OF HOPKINTON, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 131,227, dated September 10, 1872.

Specification describing a certain Improvement in Washing-Machines, invented by AMOS RICHARDSON, residing in Hopkinton, county of Delaware, and State of Iowa.

In the annexed drawing, Figure 1 represents a vertical central section of my improved washing-machine. Fig. 2 is a plan view of the same. Fig. 3 is a vertical central section of a portion of my device taken in a plane at right angles to that shown in Fig. 1; and Fig. 4 illustrates a plan view of the upper one of two horizontal bars to which the plunger-staffs are pivoted.

In the designation of identical parts corresponding letters are used in the several figures.

This invention relates to an improvement in washing-machines of that class in which the operation of washing the clothes or other desired articles is performed by means of plungers, or by "pounding" the said articles; and it consists of the combination, with a suitable receptacle, of two or more plungers hung within the said receptacle in such a manner as to be susceptible of both horizontal and vertical movement—the devices employed for this purpose being substantially such as will be hereinafter described.

To enable others to make and use my invention I will proceed to describe its construction and operation.

In the accompanying drawing, A refers to a receptacle of a barrel or other desired form, the bottom of which is supplied with an upper and a lower series of bars or strips, *a a'*, the former being fastened to and arranged with reference to the latter, as shown in Fig. 1, the object of which being to cause a rubbing effect to be had upon the under side of the clothes being washed. To this feature no claim separately is made, as its construction and arrangement are old and well known. To opposite points upon the inner circumference of the receptacle A are fastened blocks or supports B B, having mortises or recesses within which rest the ends of the bar C—the said bar being locked therein by means of the inverted L-shaped metallic bars or swivels D. (See Figs. 2 and 3.) These bars or swivels pass through, and are loosely confined within, vertical holes in the blocks B, and pass upward through the openings or slots *c c* in the ends of the bars C. To lock the bar C in place simply turn the right-angular portion of the said swivels D away from the slots or opening *c c*, and upon

the former so as that their ends shall point toward the central standard having the horizontal parallel bars of the plungers. To reach the opposite result pursue the contrary course. By means of this arrangement the removal or adjustment in place of the plungers and their adjuncts is effected. E refers to a standard, having a series of holes, *e e*, and passing through and retained within a metallic sleeve, F, and the perforated bar C, by means of a pin, *f*, which, to this end, is inserted through apertures in the said sleeve and one of those marked *e e* in the standard—the object of the series of apertures *e e* being to permit of the standard being susceptible of vertical adjustment, whereby the plungers may be set nearer to or further from the articles to be washed; or, in other words, accommodated to the size or amount of the articles being cleansed. F is the standard sleeve, which is constructed with an annular flange or right-angular portion fitting upon the bar C around and above its aperture or perforation, and confined to the said bar by means of a metallic plate, G, as shown in Figs. 1 and 2, whereby the standard is allowed to have horizontal movement, so as to permit of its plungers being brought to bear or work upon the entire surface of the articles being cleansed—an item of no small consideration. H H refer to two horizontal bars, which are pivoted at their centers, one to the upper and the other to the lower pendent end of the revolving standard E, and at their ends to the plunger-staffs I I, the plungers J J being firmly fastened to the staffs I I. (See Fig. 1.) The motive power for imparting movement to or operating the machine is applied at the ends of the upper one of the two parallel bars H at the points *x x*.

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

The receptacle A, *a a'*, B, bar C, swivels D, standard E, sleeve F, plate G, bars H H, staffs I I, and plungers J J, combined and arranged substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name this 29th day of June, A. D. 1872, in presence of two subscribing witnesses.

AMOS RICHARDSON.

Witnesses:

B. P. MILLER,
MARIA T. MILLER.