(No Model.)

C. N. CADWALLADER.

WASHING MACHINE.

No. 414,016. Patented Oct. 29, 1889.

Fig. 1.

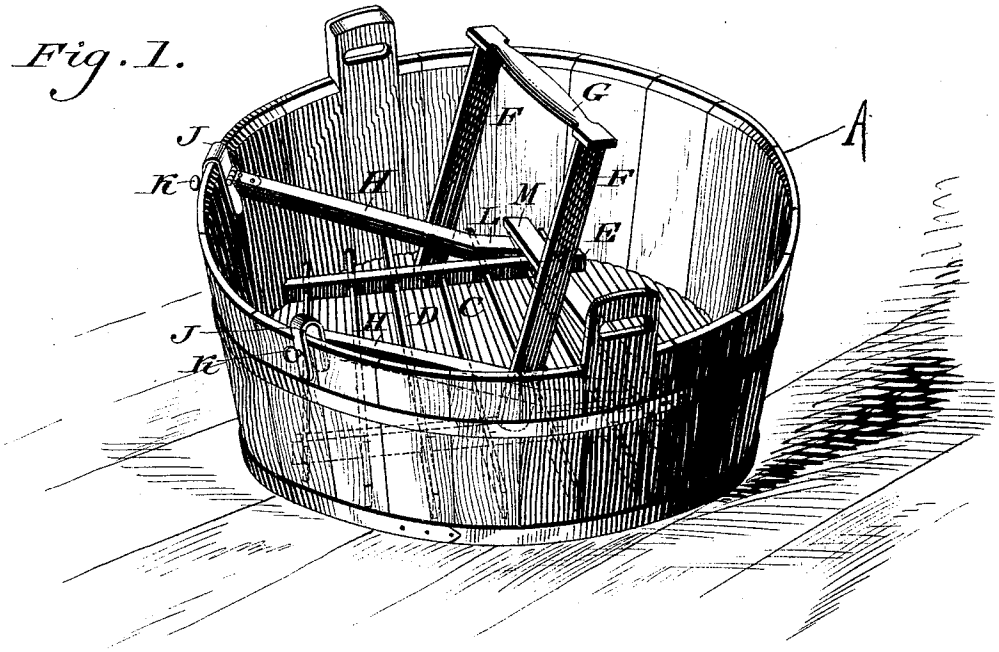


Fig. 2.

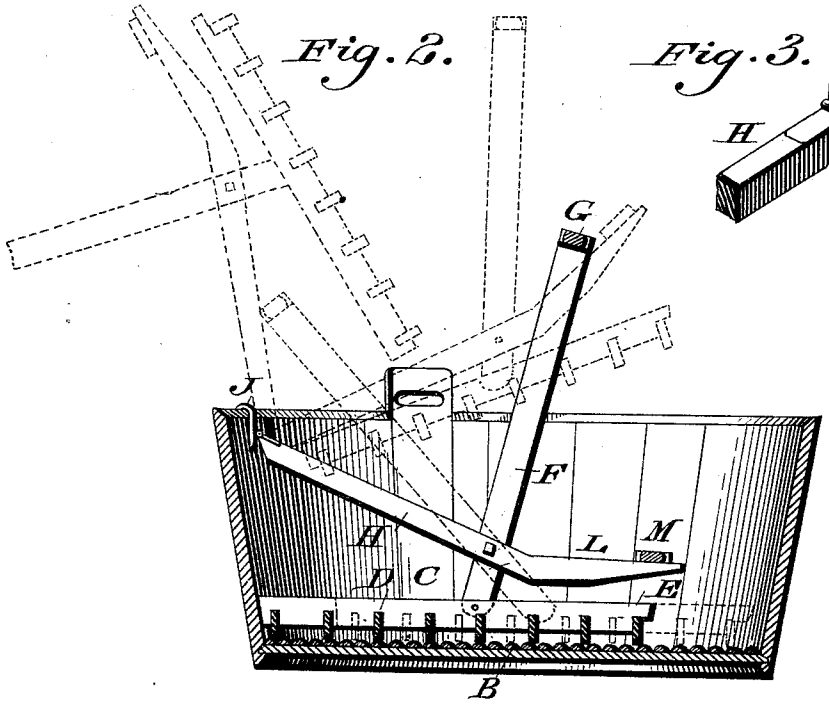
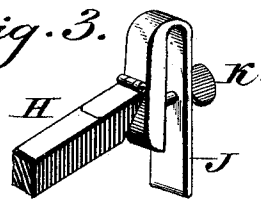


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES N. CADWALLADER, OF PHILADELPHIA, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,016, dated October 29, 1889.

Application filed May 29, 1889. Serial No. 312,650. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. CADWALLADER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification and the accompanying drawings.

My invention consists of a washing-machine applicable to a wash-tub of an ordinary construction, the same embodying a stationary wash-board on the bottom of the tub, a movable rubber above said board, levers for operating the movable rubber, a swinging frame to which said levers are pivoted, and a handle connected with said frame for conveniently raising the rubber and connected parts, the swinging frame being hinged to clamps on the tub, the several parts being constructed and operating substantially as will be hereinafter fully set forth.

Figure 1 represents a perspective view of a washing-machine embodying my invention. Fig. 2 represents a vertical section thereof. Fig. 3 represents a perspective view of a clamping device and an end of the attached arm.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a wash-tub which in general respects is of usual construction.

B designates a wash-board formed of pieces or slats on the bottom of the tub, or may constitute said bottom and may be made removable, the board while in position remaining stationary, as it fills the space at the bottom of the tub.

C designates a rubber, which consists of separated cross strips or slats D and side bars E, to which said strips are attached, said rubber resting on the board B. To the side arms E are pivoted the lower ends of levers F, whose upper ends are connected by a cross-piece, forming a handle G.

H designates two arms, which are hinged at their outer ends to clamps J, the latter being fitted over the top edge of the tub and secured thereto by set-screws K. The levers F are pivoted to said arms H at or near positions above the center of the rubber C, said levers thus having their bearings on said arms H. The arms are extended forward of the axes of the levers F, as at L, the ends whereof are connected by a cross-piece M, forming a brace for strengthening said ends and providing a handle.

The operation is as follows: The rubber is raised by lifting the arms H through the medium of the handle M, said arms then being rested against the upper portions of the clamps J, whereby the rubber is held in elevated position. The articles to be washed are then soaped and placed on the board B, the tub being properly supplied with water. The rubber is now lowered upon the articles and operated by the levers F, so as to be moved to and fro over the articles, whereby the latter are formed into folds between the slats or strips of the rubber and worked over the board B, said folds changing as the rubber is reciprocated, so that every portion of the same is subjected to the action of the board, as well as that of the rubber, the action being somewhat similar to that of the hands on a wash-board, the washing thus being rapidly and effectively accomplished. Owing to the long leverage imparted to the arms H by the extensions L thereof, the rubber may be lifted in and lowered in a convenient manner, the handle M of said extensions being below the handle G of the levers H, thus rendering said lifting and lowering more easy of accomplishment than if the handle G were the medium, as the same occupies an elevated position and swings with the levers F, so that there is not the same control of the rubber as where the handle M is employed, this not being affected by the motions of the lever and rubber.

I am aware that it is not new to construct a washing-machine with a rubber formed of slats having arms connected therewith; but I am not aware that the particular construction herein set forth is old, wherein the said arms, which are pivoted to the frame of the rubber, are also pivoted to arms pivotally connected with the sides of the tub or other receptacle for the clothes to be washed.

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

1. A washing-machine consisting of a tub

or other receptacle, the arms H, pivotally attached to the clamping devices J, the latter being adapted to embrace the sides of said tub, a rubber consisting of side bars and cross-slats, the levers F, pivotally attached to the arms H and to the said side bars of the rubber and having the handle G, the handle M, connecting the ends of the arm H, and the bottom B, said parts being combined substantially as described.

2. A washing-machine consisting of a tub, devices adapted to be removably secured to the sides of the tub and having arms pivoted thereto, a rubber consisting of side bars and cross-slats, a handle having levers secured thereto, the said levers being pivoted to the side bars of the rubber and to the arms of the said devices, the pivotal connection to the arms being in a position above the center of the sides of the rubber and the said arms having extensions secured together by a cross-piece, said parts being combined substantially as described.

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