

(No Model.)

W. R. HAMILTON.  
WASHING MACHINE.

No. 492,674.

Patented Feb. 28, 1893.

Fig. I.

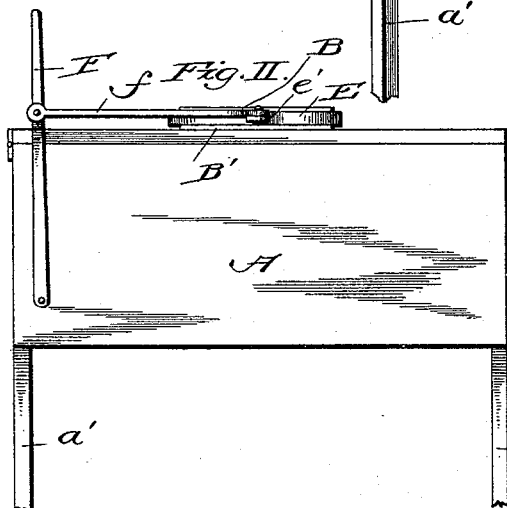
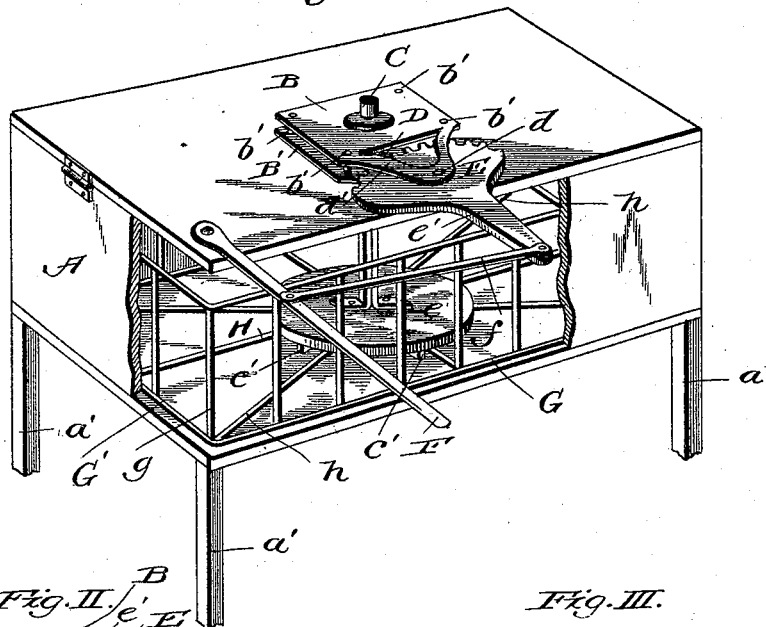


Fig. III.

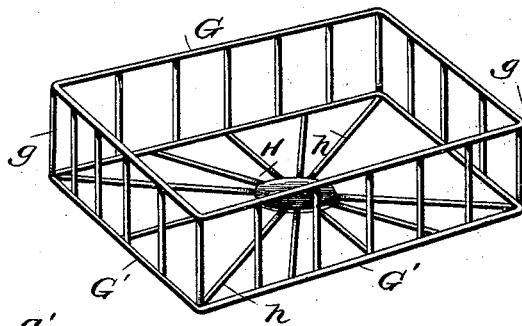
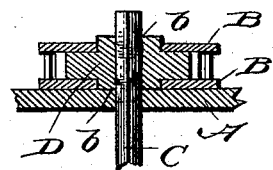
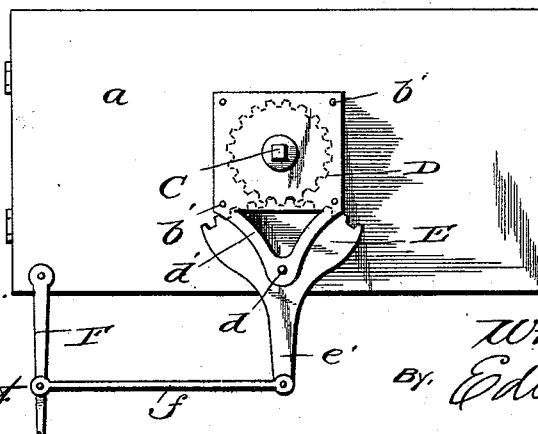


Fig. V.

Fig. IV.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILLIAM R. HAMILTON, OF INDIANA, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 492,674, dated February 28, 1893.

Application filed December 2, 1891. Serial No. 413,796. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. HAMILTON, a citizen of the United States, residing at Indiana, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in 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 appertains to make and use the same.

My invention relates to improvements in washing machines; and the objects of the invention are to simplify the construction and obtain increased power with less labor than is possible in machines of this description now in use.

With these ends in view my invention consists in the combination of a suds box provided with a hinged lid or cover, a removable tray fitted snugly within the suds box, an agitator shaft journaled in bearings on the lid, an agitator attached to the lower bifurcated end of the agitator shaft, a gear wheel secured on the upper end of the agitator shaft between parallel horizontal journal plates, a segmental gear fulcrumed on the suds box and arranged to mesh with the gear wheel on the agitator shaft, and connections between the outer free end of the segment and an operating arm or lever.

My invention further consists in the peculiar construction and arrangement of parts as will be hereinafter more fully pointed out and claimed.

In the accompanying drawings—Figure I is a perspective view of a machine constructed in accordance with my invention, a portion of the suds box being broken away to show the interior of the same. Fig. II is a side elevation of the machine. Fig. III is a detail perspective view of the removable tray. Fig. IV is a top plan view; and Fig. V is a vertical sectional view through a portion of the lid or cover.

Like letters of reference denote corresponding parts in all the figures, referring to which—

A designates the suds box, which may be of any desired form and size, mounted on suitable legs *a'* and provided with a hinged or swinging cover *a*.

On the lid *a* of the box A are firmly secured

horizontal parallel bearing plates B, B'. The plates B, B', are connected by vertical pins *b'* and are provided, about their center, with aligned apertures or openings *b*. The pins *b'* by which the plates B, B', are connected are preferably extended below the under or lower plate B' and are adapted to be fitted in suitable sockets or apertures formed in the lid *a* of the suds box.

Between the bearing plates B, B', is arranged a gear wheel D and through a central polygonal aperture in this gear wheel is passed a vertical agitator shaft which conforms in cross section to the form of the opening in the gear D so that said shaft can be adjusted vertically, when desired, for a purpose to be hereinafter pointed out. The lower end of the agitator shaft is bifurcated and the prongs or arms thus formed are securely fastened to the upper surface of an agitator head *e*, which agitator is provided on its lower face or surface with a series of downwardly projecting ribs or lugs *c'*.

On or above the lid *a* of the suds box, preferably between arms *d'* formed integral with the bearing plates B, B', is fulcrumed, at *d*, a segmental gear E the teeth of which mesh with the teeth of the gear wheel D on the agitator shaft. The segment or plate E is provided with a projecting arm *e'* which arm is connected at its free outer end with an operating lever F by a link or rod *f*. The lever F may be fulcrumed on the lid *a* or on one side of the suds box as shown in Figs. I and II, respectively.

Within the box A is arranged a removable tray consisting of parallel bars G, G', which are connected by a series of parallel vertical bars *g*. The bottom of the tray is formed from a central solid block, a piece H of which is connected with the lower bar G by a series of radial bars *h*. The tray is placed within the suds box and receives the clothes to be washed and the agitator *e*. As before stated the agitator shaft can be adjusted vertically to bring the agitator close against the lid *a* to enable the tray and clothes therein to be readily removed from the suds box.

The operation and advantages of my improvements will be readily understood and appreciated.

I am aware that changes in the form and

proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore  
5 reserve the right to make such changes as fairly fall within the scope of the same.

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

In a washing machine, the combination of a suds box provided with a hinged lid, a removable tray fitted within the suds box, parallel bearing plates mounted on the hinged lid  
15 and provided with central aligned apertures, a gear wheel arranged between the bearing plates and provided with a central polygonal

passage, an agitator shaft fitted in the passage in the gear wheel and having its lower end bifurcated, an agitator attached to the  
20 lower bifurcated end of the agitator shaft, a segment gear fulcrumed on a suitable support and meshing with the teeth of the gear wheel on the agitator shaft, an operating lever, and a link connecting said lever with an  
25 arm attached to the segment, substantially as described.

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

WILLIAM R. HAMILTON.

Witnesses:

WM. B. MARSHALL,  
D. R. PRINGLE.