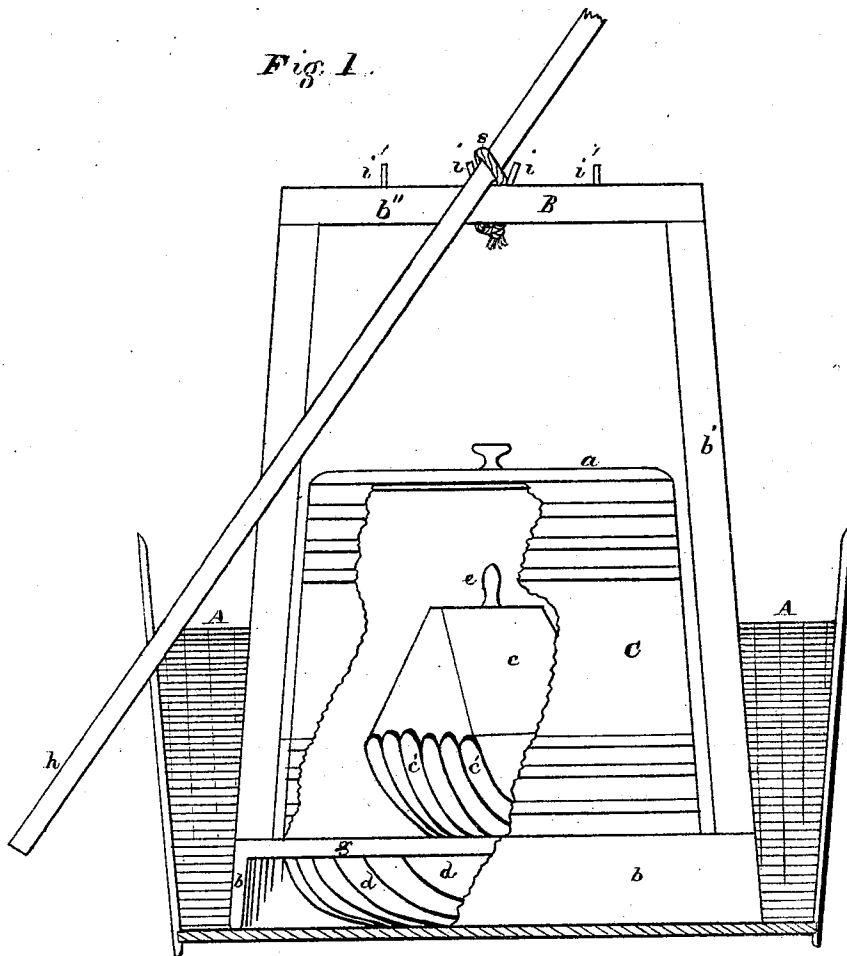


E. A. TURNBULL.

Improvement in Washing Machines.

No. 124,234.

Patented March 5, 1872.



Attest.

B. C. Converse
J. R. Greene

Inventor.

Eliza A. Turnbull.

By B. C. Converse
His Attorney.

E. A. TURNBULL.

Improvement in Washing Machines.

No. 124,234.

Patented March 5, 1872.

Fig. 2.

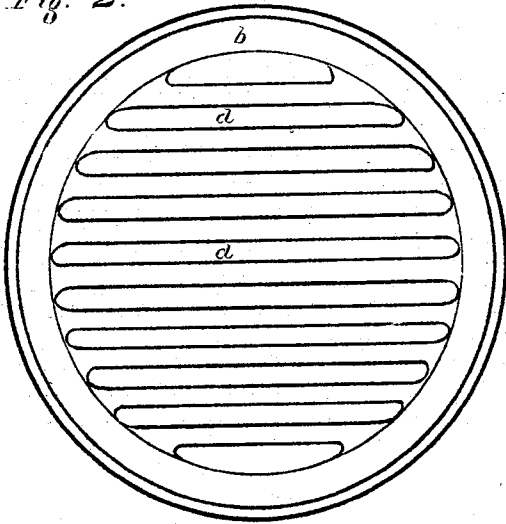


Fig. 3.

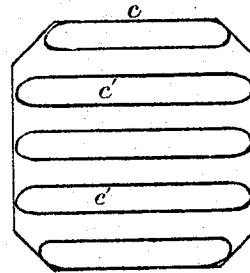
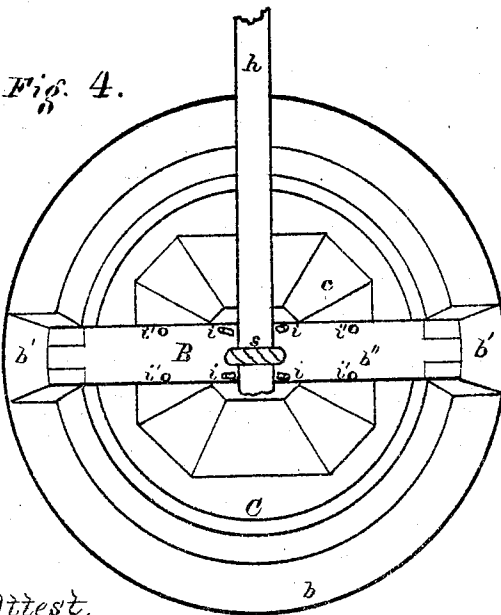


Fig. 4.



Attest,

Blairmore
J. R. Squire

Inventor,

Eliza A. Turnbull.

By B. C. Comrose
Her Atty.

UNITED STATES PATENT OFFICE.

ELIZA A. TURNBULL, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 124,234, dated March 5, 1872.

I, ELIZA A. TURNBULL, of the city of Springfield, in the county of Clark and State of Ohio, have invented certain Improvements in Washing-Machines, of which the following is a specification.

The first part of my invention relates to an upright frame, having a circular base of wood, which is rounded and grooved in a peculiar manner on its under side. This is placed in an ordinary washing-tub on the clothes to be washed, and is used in combination with the same. The frame is constructed of two upright pieces, with a cross-bar at the top, and is made slightly tapering from the base upward. It is furnished with a lever or pole handle, one end of which is attached by a cord to the middle of the cross-bar on the top of the frame by which the machine is operated. The object of this part of my invention is to enable invalids, aged persons, or children to operate the machine while in a sitting posture, the lower end of the lever being held down on the lap of the operator by one hand, while it is seized with the other hand between that point and the top of the machine, and rocked backward and forward on the clothes in the tub, which contains a sufficient quantity of suds to facilitate the process of washing. The second part of my invention consists in the addition of a smaller tub, tapering upward so as to fit easily within the frame. This is placed on the bottom-board, and is prevented from slipping from side to side during the process of washing by pegs, one of which can be pulled out of the bottom board when it is desired to take out the smaller tub. This smaller or sub-tub is provided with a cover and bail for convenience in handling, and has a grooved block with a handle within it, which rests on clothes placed in the tub. The bottom part of the block is rounded, so that it will rock in the same manner on the clothes as the grooved bottom board of the frame in the large tub. During the process of washing, the block, which is of pyramidal shape, acquires a rocking motion, pressing the suds through the clothes, and expelling the dirt in like manner as that part resting on the clothes in the larger tub. The object of this part of my invention is to separate the fine clothes, such as laces, collars, &c., and wash them in the smaller tub at the same operation, thereby lessening the

labor. The machine can be weighted or lightened at pleasure by the quantity of clothes and suds placed in the smaller tub, thus adapting it to the strength of the operator.

Figure 1, Sheet 1, is an elevation of my machine, a sectional view of the large tub only being shown. The smaller tub and the base of the frame have a section removed, so as to show the inner parts. Fig. 2, Sheet 2, is a view of the under side of the grooved bottom board or base of the frame. Fig. 3, Sheet 2, is a view of the under side of the block *c*, which operates on the clothes in the small tub. Fig. 4 is a plan view of the machine without the larger tub.

In Fig. 1, A is the large tub, which is shown with a vertical half section cut away so as to expose the frame B with its base *b*, and the small tub C standing in the frame, held by pins *e'*. The frame B tapers slightly from the base *b*, into which the lower ends of the uprights *b'* are mortised. The uprights *b'* are made larger at the base so as to give strength to the frame. The cross-bar *b''* is provided with stops or pins *i* and *i'*, (see Figs. 1 and 4,) between which the handle or pole *h* is worked, much like an oar in the row-lock of a boat, the pins acting as the fulcrum-points for the lever. It will be seen by reference to Fig. 4 that the lever can be operated from either of the four sides of the tub, though it is operated between the pins *i* at the middle of the cross-bar *b''* when the operator is working the machine in a sitting posture. The lever *h* being loosely attached by cord *s* to cross-bar *b''*, any inclination may be given to it that may be desired. In operating the machine the person sits in a chair with his or her side next the tub, lever *h* being inclined across the lap or legs of the operator in front of the body, and is held down, (if the operator sits on the right of the machine,) at the end by the right hand, while it is grasped by the left hand about half way between the right hand and the point where its upper end is attached to the top of the machine. It is then pushed back and forth, giving to the frame and accessories a rocking motion on the base *b* as its fulcrum. The suds are forced through the clothes by the action of the grooved parts *d* on the under side of the base, these grooves, and the annular ring *g* which surrounds them, catching the air under the

base, and forcing it among the clothes through the suds in which they are partially immersed, thus greatly aiding the process of cleansing and washing them, besides saving the labor of rubbing any part of the garments. The action of the block *c* with its grooves *c'*, (which is shown in Fig. 1, Sheet 1,) is very much the same as that of the base *b*, though the fine clothes do not require so great an amount of agitation or pressure as is given by the operation of the base part *b* to those contained in the larger tub, that part being constructed in such manner as to wash the dirtiest clothes in the shortest possible time. Block *c* is provided with the handle *e* for lifting it out and into the tub C. But little suds need be used in either the larger or smaller tub, only a sufficient quantity being needed to partially cover the clothes. My machine may be used by persons in a sitting posture on either side, or the person may stand erect and operate it. In the latter case the lever is worked between the pins *i'*, which are placed about half way between the center and outer ends of cross-bar *d''*. Other power may be applied to it, by which a series of machines may be operated at the same time, as is the case in a laundry where machines are worked by steam or other power, the lever or pole *h* being used to connect the

whole together. My machine is also capable of being combined and operated with a churn in like manner. The cord *s*, as shown in drawing and model, is placed around the lever, and its ends passed down through a single hole in the center of the bar *b''*. It may also be attached by being passed through two holes, one on each side of the lever, and its ends knotted together, as in using a single hole. In the construction of the under side of the base *b* the grooves are cut quite deep, as is also the annular ring *g* surrounding them, the grooved part being rounded toward its edges and flattened in the middle.

What I claim as my improvement in washing-machines is—

1. The construction and arrangement of the frame B, with its lever *h*, base *b*, grooves *d*, annular ring *g*, and pins *i i'*, as shown and described, for the purpose set forth.

2. I also claim the arrangement of the tub, the arrangement of the tub C and block *c*, base *b*, and pins *c'*, in combination with the frame B, constructed as shown and described, for the purpose set forth.

ELIZA A. TURNBULL.

Attest:

MARY J. TURNBULL,
B. C. CONVERSE.