W. W. WALKER.

WASHING-MACHINE.

No. 188,448. Patented March 13, 1877.

Fig. 1

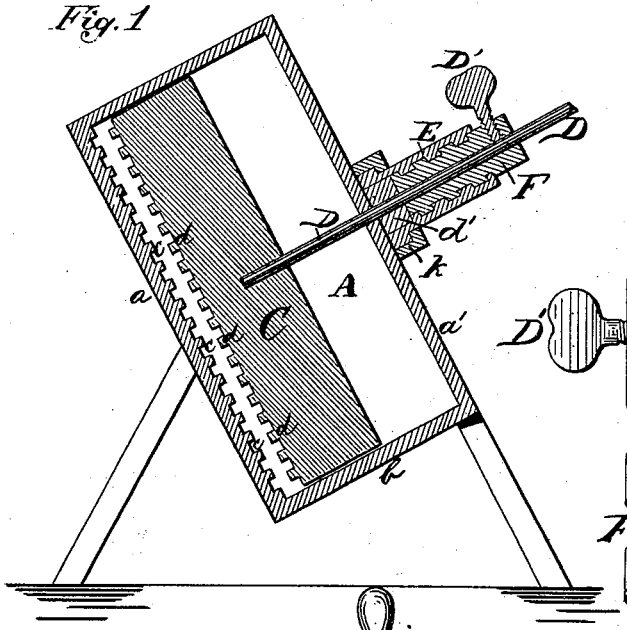


Fig. 3

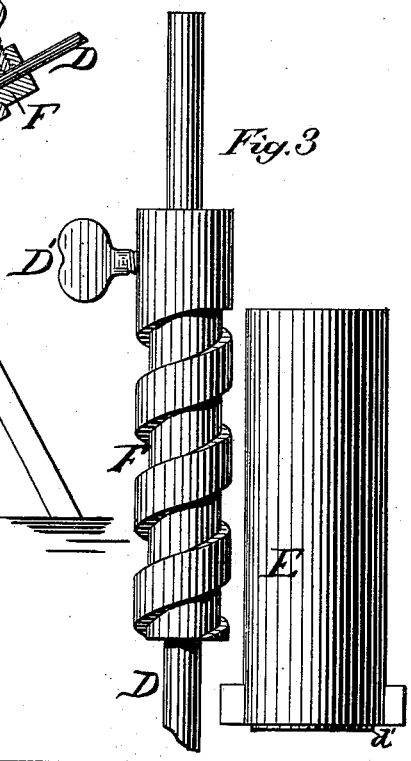
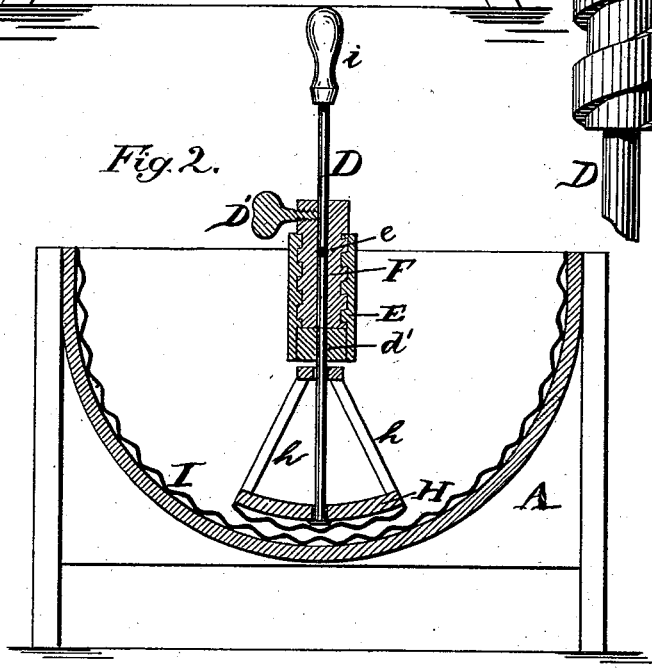


Fig. 2.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM W. WALKER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **188,448**, dated March 13, 1877; application filed February 15, 1877.

To all whom it may concern:

Be it known that I, WILLIAM W. WALKER, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a sectional view of a washing-machine to which my invention has been applied. Fig. 2 is a similar view of a washing-machine of different construction; and Fig. 3 is a side view of my invention detached.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to certain improvements in that class of washing-machines in which the cleansing of clothes is effected by rubbing; (usually of two corrugated surfaces facing each other, the clothes being placed between them;) and it consists in the construction and arrangement of parts hereinafter more fully shown and described.

To illustrate my invention I have, in the drawings hereto annexed, shown it applied to washing-machines of two different constructions. In Fig. 1, A is the body of a washing-machine, consisting of two parallel inclined sides, *a a'*, and a semi-cylindrical bottom, *b*. The side *a* has a series of ribs or corrugations, *c*, presenting a surface similar to that of an ordinary wash-board. The side *a'* has upon the outside a cross-brace, *k*, in which is secured a cylindrical screw-threaded sleeve, E, the end of which rests firmly against side *a'*. In this sleeve works a screw-threaded cylinder, F, having a longitudinal perforation, through which passes a shaft, D, which projects through a perforation in side *a'* into box A. Here it has a solid wooden disk, C, provided with ribs or corrugations *d*, facing those upon side *a*. The shaft D may be secured in cylinder F in any suitable position by a set-screw, D'. *d'* is a rubber washer or cushion, placed in the end of sleeve E, and resting against side *a'*. This washer or cushion has the double object: to prevent water from getting into the threads of sleeve E, and to serve as a cushion for cylinder F when the machine is operated.

The operation of my invention, when applied in the manner just described, is as follows: After turning the shaft D and cylinder F, in which it is secured by set-screw D', by a suitably-arranged crank or handle, until the disk C is brought as far as possible from side *a* of the machine, the clothes are placed in the box. The set-screw D' is then loosened, and the shaft D, with disk C, adjusted at a suitable distance from side *a*, according to the quantity of clothes in the box. The shaft D is then again fastened by screw D'. By rotating the shaft in one direction by its handle the disk C is brought away from the clothes in the box, and when the direction is reversed it is brought down against them with a combined pressing and rubbing motion, which nearly resembles in its results washing by hand. The rubber cushion *d'*, by stopping the progress of cylinder F, prevents the disk C from being forced too heavily against the clothes, by which they might be injured, and at the same time gives a certain impetus to the back motion of the disk and shaft.

When applied to a reciprocating rubber washing-machine, as illustrated in Fig. 2, the operation of my invention is somewhat different. In this case, A is the box or tub of the washing-machine, having rubbing-surface I. H is the rubbing-board, which is pivoted to the lower end of shaft D, it being provided with strips or braces *h h* to retain it in position. The sleeve E, with cylinder F and shaft D, is pivoted at a point, *e*, between the sides of the box, in suitable braces or bearings. The shaft D is provided with a gripe or handle, *i*. After placing the clothes in the box and adjusting the rubbing-board H by raising or lowering shaft D by set-screw D', the shaft D is reciprocated, turning at the same time the gripe or handle *i* to any desired extent, thus forcing the board H down against the clothes, which are thus pressed and rubbed at the same time, the force of the pressure being easily regulated by handle *i*.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a washing-machine having two rub-

bing-surfaces, one solid and the other rotating or reciprocating, the cylindrical screw-threaded sleeve E, longitudinally-perforated screw-threaded cylinder F, having set-screw D′, and adjustable shaft D, all combined and operating substantially in the manner and for the purpose herein shown and specified.

2. In combination with the sleeve E and cylinder F, the rubber cushion or washer *d′*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM W. WALKER.

Witnesses:
C. A. SNOW,
WM. BAGGER.