

(No Model.)

F. C. WEIMAN.
WASHING MACHINE.

No. 472,937.

Patented Apr. 12, 1892.

Fig. 1.

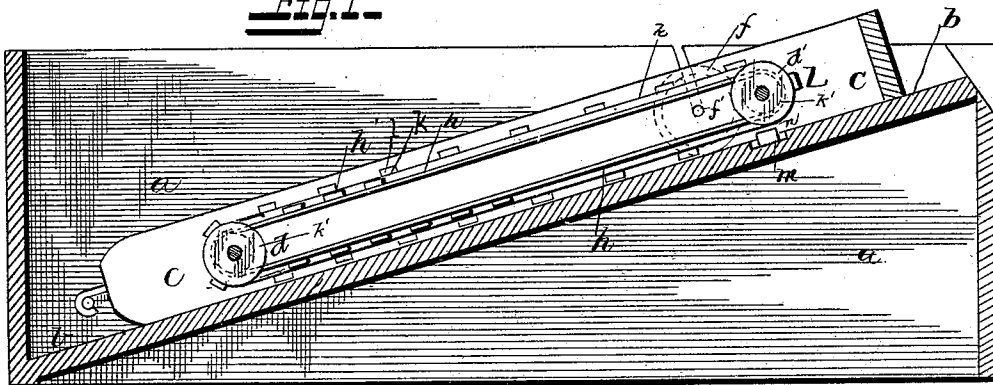


Fig. 2.

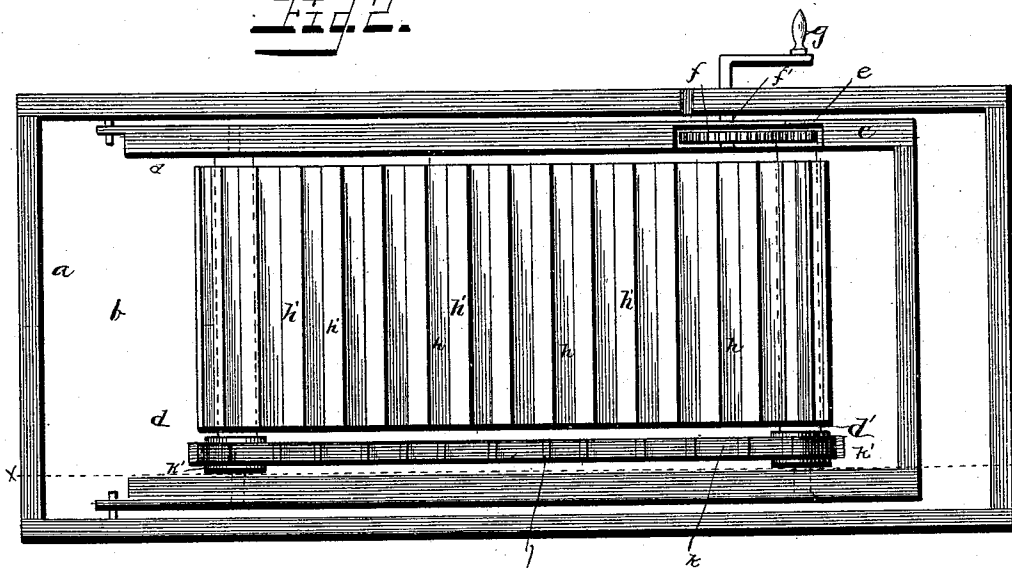
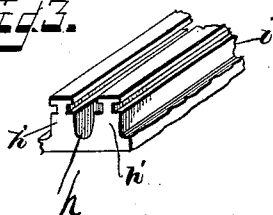


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK C. WEIMAN, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM H. LEECH, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 472,937, dated April 12, 1892.

Application filed November 8, 1890. Serial No. 370,806. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. WEIMAN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to washing-machines; and it consists in certain peculiarities in the construction, arrangement, and combination of the several parts thereof, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

The object of my invention is to construct a simple and inexpensive washing-machine which will thoroughly clean clothes in a very short space of time and with little expenditure of physical force and without injury to even the most delicate fabrics. These objects are accomplished by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my improved washing-machine, taken on the line X X of Fig. 2; Fig. 2, a plan view of the same, and Fig. 3 a view in perspective of part of the rubber.

The same letters of reference designate the same parts in the several figures.

In the drawings, *a* designates a box having an inclined bottom *b*, and *c* designates a frame which rests on said bottom *b*, and is hinged at one end near the lowest point in the box, whereby it may be raised for the introduction and removal of clothes.

Journaled in the frame *c*, near opposite ends thereof, are two rollers *d d'*, one of which, as *d'*, carries a pinion *e*, which intermeshes with a gear-wheel *f*, fastened on a shaft *f'*, journaled in the frame *c* and in one side of the box *a*, which box has at this point a slot in the form of an arc of a circle, whereby said shaft will not interfere with the raising of said frame, said shaft *f'* being also provided with a crank *g*, by which it may be rotated to

communicate motion to said gear-wheel and pinion.

Passing over the rollers *d d'* is a broad flat endless apron *h*, preferably made of rubber and having integral therewith upwardly-projecting rubbers *h'*, formed with ribs or beads *i*, which rubbers extend transversely of the apron parallel with each other. At one side of the apron *h* is a belt *k*, which extends over rollers *k'*, secured to the shafts *d d'*, so that said belt will be raised above the level of said apron and rubbers. At suitable intervals along the exterior of said belt are secured projections *l*, which when said belt is operated are brought into contact with a bar of soap *n*, suitably supported on the bottom *b* in a recess *m*, and are constructed to cut off and convey into the water and among the clothes particles of said soap, whereby the cleansing of the clothes will be facilitated.

From the foregoing the operation of my device will be readily understood. The clothes having been introduced onto the bottom by raising the frame *c* and said frame placed in its original or normal position and water in sufficient quantity being also introduced into said frame, motion is given to the crank *g* and communicated to the apron *h* and belt *k*, the latter of which acts, as stated, by means of its projections *l* to cut off and convey into the water and among the clothes particles of soap, and the flexible beaded rubbers on the former, coming into contact in rapid succession with the clothes, agitate the same and rub the dirt out of them. When the clothes are thoroughly cleaned, they are removed from the machine after first raising the frame *c*. The rubbers *h*, being made of rubber and with beads at their outer ends, are extremely flexible, accommodate themselves to the inequalities in the clothes, and thoroughly clean the same without any injury thereto.

Having now described my invention, what I claim as new is—

1. In a washing-machine, the combination, with the box, of an endless rotating apron, rubbing devices carried thereby, an endless belt at one side of said apron, having projections adapted to cut off particles of soap to facilitate cleansing of the fabrics, and means for rotating said apron and belt.

2. In a washing-machine, the combination, with the box, of an endless rotating apron, flexible rubbers carried thereby, an endless belt at one side of said apron, having projections extending beyond said rubbers and adapted to cut off particles of soap to facilitate cleansing of the fabrics, and means for rotating said apron and belt, substantially as described.
- 10 3. The herein-described washing-machine, comprising a box having an inclined bottom, a hinged frame therein, rollers journaled in said frame, an apron engaging said rollers and carrying rubber devices, an endless belt also engaging said rollers and carrying projec- 15 tions adapted to cut off particles of soap to facilitate cleansing of the fabrics, and means in gear with one of said rollers for operating said apron and belt, substantially as shown and described. 20
- In testimony that I claim the foregoing I hereunto affix my signature this 9th day of September, A. D. 1890.
- FREDERICK C. WEIMAN. [L. s.]
- In presence of—
CHARLES LARGE,
M. E. HARRISON.