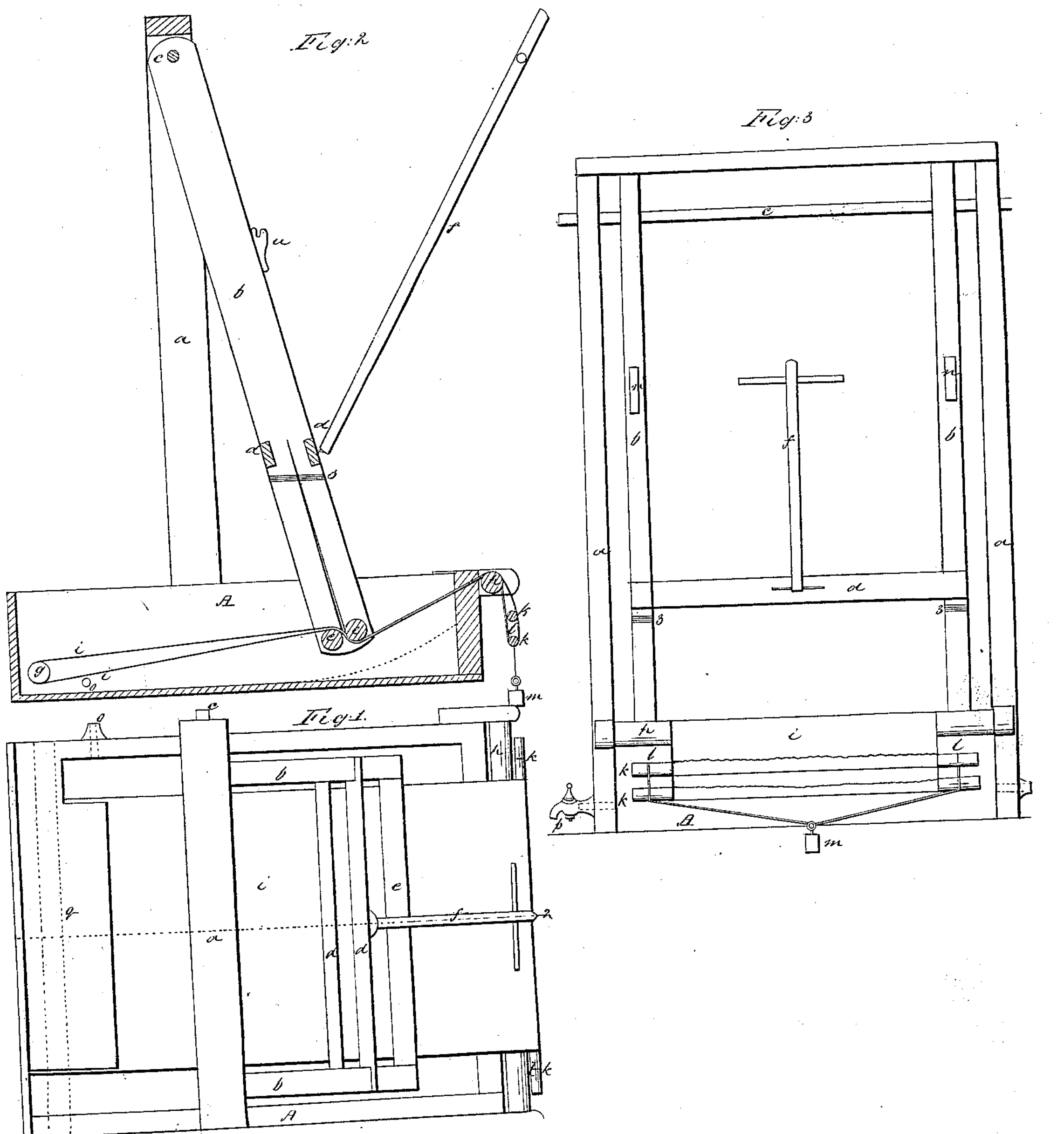
L. Proctor.

Washing Machine,

No. 2,369. Patented Nov. 16, 1841



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UNITED STATES PATENT OFFICE.

LEONARD PROCTOR, OF FULTONVILLE, NEW YORK.

MACHINE FOR WASHING CLOTHES.

Specification of Letters Patent No. 2,369, dated November 16, 1841.

To all whom it may concern:

Be it known that I, LEONARD PROCTOR, formerly of the city of New York and now of the village of Fultonville, town of Glen, county of Montgomery, and State of New York, have invented, made and applied to use certain new and useful Improvements in the Means of Washing Clothes and other Articles of Domestic Use, for which improvements I seek Letters Patent of the United States, and that the said improvements and the mode of using and constructing the same and the advantages to be derived from the use thereof, are fully and substantially set forth and shown in the following description and in the drawings attached to and making a part of this description or specification, wherein—

Figure 1 is a plan of my machine or apparatus. Fig. 2, is a sectional elevation seen as if cut through in the line 1, 2, in Fig. 1. Fig. 3 is an end elevation seen from the working end, the same letters and numbers referring to the same parts in all the figures.

A, is a box of any convenient size, containing the suds, or soap and water. The working part *a*, *a*, is a gallows-frame, near the top of which a cross shaft carries the descending arms of the vibrating frame *b*—*b*. Toward the lower end of this frame is a double cross-tie *d*—*d*. The lower end of each arm *b*—*b*, is either to be made double, or sawed upward from below. In either case the lower ends are fitted to secure the gudgeons of the rollers *e*—*e'* so that the rollers are nearly in contact and work between the arms *b*—*b*. A band of caoutchouc or other elastic substance is to be fastened around the divided part of the arms *b*—*b* just below the ties *d*—*d* or contractive springs of any convenient form or material may be substituted for the caoutchouc bands if found needful. At the back end of the box A, a roller G, is fixed, and at the outer and upper part of the opposite end the head roller *h*, is mounted in a pair of small bracket bearings. When the machine is thus far completed, a cloth made of any convenient strength, from grass or common hemp, or flax or of any proper texture—according to the kind of articles intended to be washed—is to be put in so that the bight of the cloth encircles and is carried by the back roller *g*. The double part is now to be passed between the rollers *e*—*e'*, then over the roller *h* at the head of the machine where the end of the upper part of the cloth *i*, is to be attached to a spreader *k*, and the end of the lower part to a spreader *k'*. This has a hook *l* on each end, which hooks pass over the end of the spreader *k*. When so fitted the cloth *i*—*i* forms a two-part guide or carrying apron, between the two parts of which the goods to be washed are laid. The bracket pieces *n*—*n* on the frame *b*—*b*, are intended to carry the spreader *k*, and the upper portion of the guide-apron while the goods are to be placed in, or taken out of the machine. The handle *f*, on the cross ties *d*—*d* enable the operator to work the machine, or in a large machine the handle may be placed at the opposite side of the cross ties *d*—*d* and the outer end of the handle be connected to any competent moving power. The machine is thus complete, and to be used as follows.

The operator is to push the vibrating frame and rollers back to the roller *g* and turn the handle *f* out of the way, then hang the spreader *k* and upper part of the apron on the brackets *n*—*n*. The machine is then ready to receive the goods for cleansing. These are to be spread equally, or nearly so, over the lower part of the apron, and the upper part of the apron replaced over them, with the spreader *k*, hooked by the hooks *l*, to the spreader *k'*. In this situation the weight *m*, will draw the looser part of the apron around the roller *g*, until both parts have an equal tension. Water in which soap or alkali has been dissolved is to be put into the box, and the operator is now to move the vibrating frame *b*—*b* backward and forward by the handle *f*. The motion thus given will subject the goods in the apron to the compression between the rollers *e*—*e'* caused by the bands or springs 3—3 tending to bring the two parts of the vibrating arms toward each other, and also to the flexure or bend made by the apron in passing over one roller and under another, as the frame is vibrated, and this conjoined flexure and compression will force out all the dirt or matter loosened by the liquor and effectually cleanse the goods with less injury from friction and less labor than by any other mode with which I am acquainted, and should it be desired to bleach the goods solutions of lime or acids or other articles suitable for the purpose may be used without injury to the hands of the operator.

If needful a boiling heat may be maintained during the operation by admitting steam through the nozzle *e*, and the liquor when done with may be drawn off through the cock *p*.

I do not intend to confine myself to the form described, by making the apron or guide a fixture and the rollers movable, but to make the rollers permanent and move the apron endwise, backward and forward by any convenient mechanical means, if found desirable, but in general practice, I believe the first mode will be found preferable. Nor do I intend to confine myself to giving the rollers and frame a vibratory motion by the means already specified but by any common mechanical means that will maintain the operation of the rollers and apron substantially in the manner and with the effect described. Nor do I intend to confine myself to mode described of using two vibrating rollers, but to use three or more rollers, in any manner substantially the same, when an additional degree of flexure and compression is required.

Toward the front end of the box is a wedge piece to form an inclined plane or segment of a circle as shown, by the dotted line in Fig. 2. This in a large machine will decrease the quantity of liquor required and cause it to flow in greater quantity through and over the apron and the goods, at each forward motion of the vibrating frame and rollers.

A splash-board — may be placed at the back end of the machine, if needful, to keep the liquor in the box, and a lid may be used for the same purpose of a width to lie in the vibrating frame.

What I claim as my invention, and desire to secure by Letters Patent is—

The combination of the elastic springs with the rollers, double cloth and vibrating frame, as applied to the washing of clothes and other articles of domestic use by means of which (viz the springs) the rollers are allowed to diverge and converge so as to adapt themselves to the inequalities of the clothes.

I do not claim the principle by which the double cloth is made to pass above one roller and beneath the other, that being no part of my invention.

LEONARD PROCTOR.

Witnesses:
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EDWARD WOLCOTT.