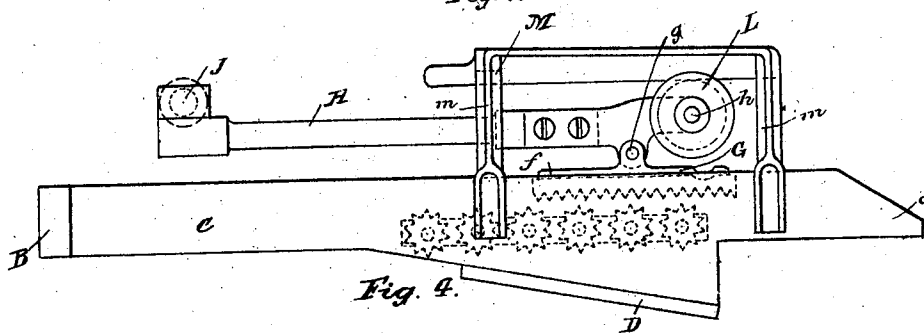
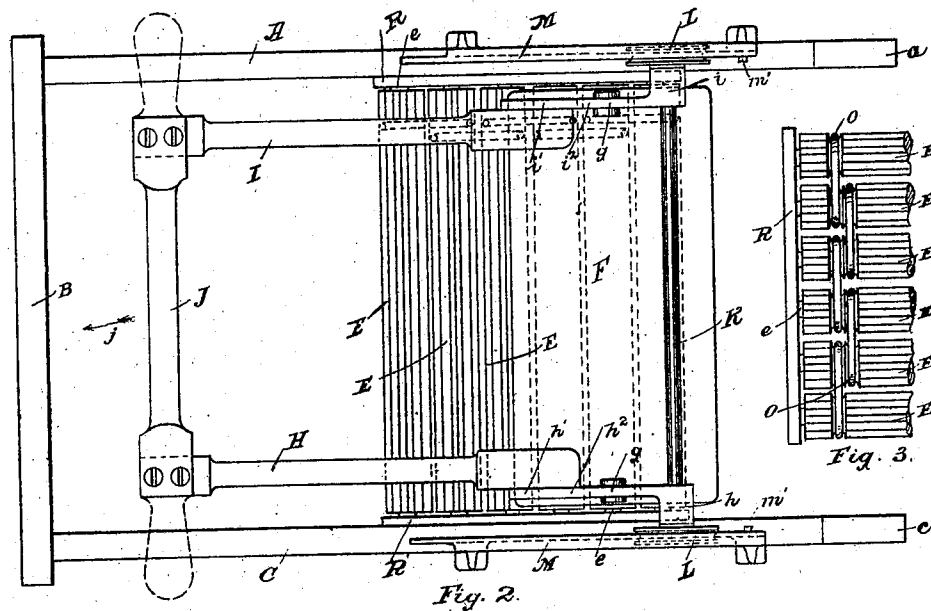
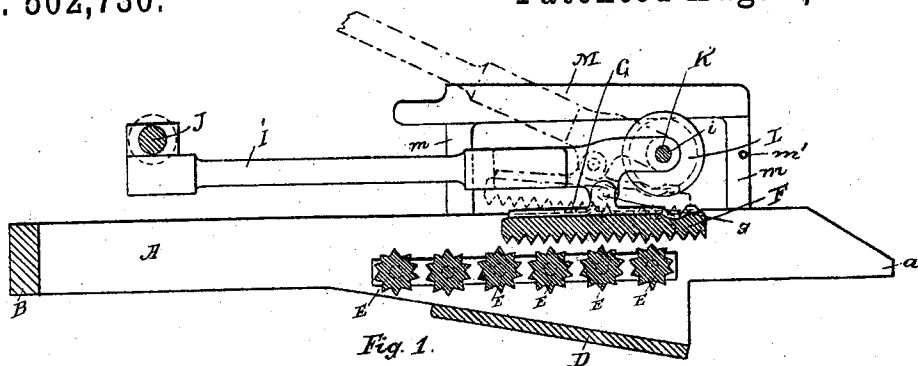


(No Model.)

F. A. LALLEMAND.
WASHING MACHINE.

No. 502,730.

Patented Aug. 8, 1893.



Witnesses:

F. X. Malo.
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per:

J. Guile Vaues

Attorney.

UNITED STATES PATENT OFFICE.

FREDERICK A. LALLEMAND, OF MONTREAL, CANADA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 502,730, dated August 8, 1893.

Application filed July 9, 1891. Renewed November 18, 1892. Serial No. 452,361. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK ALFRED SURHURIER DIT LALLEMAND, a citizen of the Dominion of Canada, residing in the city and district of Montreal and Province of Quebec, Canada, have invented certain new and useful Improvements in Washboards; 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.

This invention relates to a wash board, and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings similar letters refer to similar parts throughout the several views.

Figure 1 is a central longitudinal section; Fig. 2 a plan view from above; Fig. 3 a view showing the arrangement of the elastic belts, and Fig. 4 a side view.

My invention consists in the frame A B C, the two sides A and C serving the purpose of the ordinary legs placed on common washboards, the ends *a* and *c* being placed in the wash tub, this frame A B C being held rigid by the board D which also acts as a shield to prevent any clothes placed in the tub from being caught by the corrugated rollers E which are firmly held in position between the sides A and C of the frame A B C. On top of these rollers E is placed the corrugated board F provided with the two pieces G which are hinged at *g* to the two arms H and I of the frame or handle H I J as shown in the drawings, these arms H and I being in turn pivoted at *h* and *i* on the shaft K which has its extremities provided with the grooved wheels L. These arms H and I are usually made of wood joined at *h'* and *i'* to castings *h*² and *i*² made as shown in the drawings. Now, on to the sides A and C, I firmly join the guides M which are so made that the groove placed on the wheels or pulleys L abuts against their under side as shown, and are held in the proper position by means of the standards or uprights *m*, the wheels or pulleys L abutting against the small projections *m'*, when the forward position of the board F is reached, while the handle H I J, and consequently board F and accessories, can be taken out and separated from the frame A B C by pulling on the piece J in the direction *j*.

As can be seen its operation is very simple, for when it is required to insert a piece of goods to be washed the handle H I J is lifted up as shown in dotted lines in Fig. 1. This raising the board F right away from the corrugated rollers E, and on the material being inserted it is pressed down again and a reciprocating motion is given to the board F, by means of the handle H I J, by hand, the board F being lifted away from the material and pressed down at any point required with the greatest ease. The material being washed can also be fed through, merely by raising the board F up and bringing it back in the direction *j*, to the forward point of its stroke, and then bringing it down again and pushing forward. The corrugated rollers E are connected together in pairs by the elastic belts O as shown in Fig. 3. Each roller is grooved and is connected to the roller next adjacent to it by a separate belt O so that all the rollers revolve in the same direction. I might also add that the ends *e* of the shafts of the corrugated rollers E are inserted into flat pieces of metal R which are in turn firmly secured to the pieces A and C of the frame A B C by means of screws.

The piece J of the frame H I J can be arranged to protrude on either side of the pieces I and H as shown in dotted lines in Fig. 2 so as to form two handles; consequently the operator can take hold of the piece J between the pieces H and I or on their outer sides at will.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the supporting frame, the corrugated rollers, and the belts connecting the said rollers in pairs, of the corrugated board provided with a handle for reciprocating it, the wheels carried by the said handle, and the guides for the said wheels to engage with, substantially as and for the purpose set forth.

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

FRED. A. LALLEMAND.

Witnesses:

JAMES LAURIN,
J. EMILE VANIER.