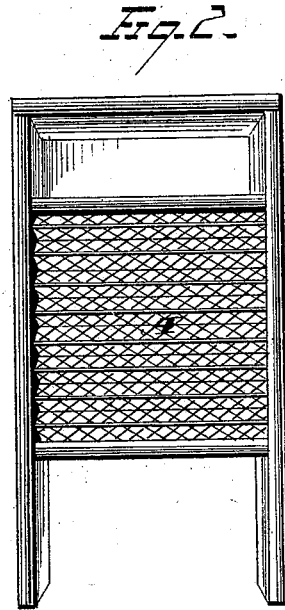
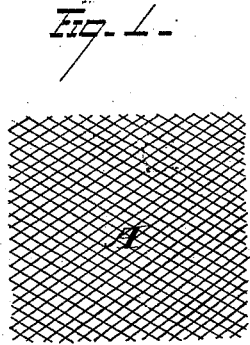


J. H. LAPHAM.

WASH-BOARD.

No. 188,472.

Patented March 20, 1877.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOSEPH H. LAPHAM, OF CLEVELAND, OHIO.

IMPROVEMENT IN WASH-BOARDS.

Specification forming part of Letters Patent No. **188,472**, dated March 20, 1877; application filed February 21, 1877.

To all whom it may concern:

Be it known that I, JOSEPH H. LAPHAM, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wash-Boards and Wash-Board Plates; 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a new improvement in wash-boards, and more particularly to wash-board plates, substantially as hereinafter set forth and claimed.

In the drawing, Figure 1 is a view of a plate before the same has been crimped. Fig. 2 represents a view of the plate after it has been crimped. Fig. 3 is a longitudinal section through the crest of one of the corrugations or crimps. Fig. 4 is a section at right angles to the crimps.

A is a sheet of zinc or other suitable metal, which is crimped into a roughened surface either by rolling in opposite directions between grooved rollers, or by stamping or pressing it between suitable dies or plates. The particular conformation of this roughened plate forms no essential part of my invention.

Where sheets or plates of this nature have heretofore been formed into wash-board plates the grooves or indentations have been permitted to cross the crests of the crimps, thus giving to the crests a series of alternate elevations and depressions, which roughen the crests. This roughening of the crests serves to tear the hands of the operator, and to obviate this difficulty, and yet preserve the advantages due

to the roughened surface, is the object of this invention. For that purpose I make the crests smooth, but retain the roughened surface between the crests.

Thus it will be seen, from an examination of Fig. 3, that the line of the crest is perfectly straight, and does not possess the alternate elevations and depressions before referred to. So, also, in Fig. 4, it will be seen that the sheet at the crests is maintained smooth, while the depressions are roughened. I thus combine the advantages of the roughened surface for retaining the suds, with the smooth crests for preserving the hands of the operator. Moreover, the clothes are not so liable to become torn or worn, as is the case where the crests are undulating or roughened.

The roughened plate from which I make my wash-board plate is such a one wherein the creases or depressions are not parallel, but cross each other, so that, while they retain the suds for a short time, they permit the suds to gradually descend.

What I claim is—

1. A wash-board plate the crimps of which have smooth crests, with the intervening depressions, substantially as and for the purpose described.

2. A wash-board plate formed by crimping a plate that has been previously roughened, and forming the crimps with smooth crests, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH H. LAPHAM.

Witnesses:

F. TOUMBY,
WM. BEHRENS.