

F. J. MERRIAM & J. A. W. SEARS.
WASHBOARD.

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UNITED STATES PATENT OFFICE.

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WASHBOARD.

SPECIFICATION forming part of Letters Patent No. 569,879, dated October 20, 1896.

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To all whom it may concern:

Be it known that we, FREDERIC J. MERRIAM and JAMES A. W. SEARS, of Escanaba, in the county of Delta and State of Michigan, have invented a new and Improved Washboard, of which the following is a full, clear, and exact description.

The object of the invention is to provide a washboard having an improved rubbing-surface and novel means for locking the parts of the board against both longitudinal and transverse strains, the locking devices serving to give added strength to the washboard and forming substantially a blind-lock, being practically all concealed.

The invention consists in the novel features and combinations hereinafter particularly described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a partly sectional front elevation of a washboard constructed in accordance with our invention. Fig. 2 is a transverse vertical or longitudinal section, and Fig. 3 is a horizontal section taken on the line 3 3 of Fig. 1.

In constructing a washboard in accordance with our invention the side bars A may be given any preferred exterior shape, and are projected beyond the intermediate panel or rubbing-board B to form legs *a* in the usual manner. We use the term "rubbing-board," or "board" alone, throughout this description in a broad sense as indicating the portion of the washboard on which the clothes are rubbed and without reference to its special construction. The said side bars are formed each with a recess or groove *a'*, opening from the inner sides of such bars for receiving the side edges of the panel or board B, which are peculiarly constructed and let into said bars, and novel devices are provided as follows for maintaining the several parts in proper engagement:

The rubbing-board B is provided with hook-like devices C, one at each side, secured to or formed on the board, the preferred manner and one having superior advantages be-

ing shown. This consists in providing a transverse rod C', having the hooks C formed by bending such rod at its ends, and the rod is held to the board at the bottom, the hooks C projecting downward into the bars A, thereby engaging both bars and holding them firmly against lateral strain.

The rod C' is held to the rubbing-board B as follows: The said board is composed of a rigid filling-piece or body *b* and metal surfaces, which are formed of a double metal plate or sheet *b'*. The latter is bent around the bar C' and extends over both front and back of the filling-piece or body *b*, and the back surface or plate serves to stiffen said body *b*. The side edges of the parallel surfaces or plates *b'* project beyond the side edges of the body. (See Fig. 3.) The recesses *a'* are continued through the side bars to the top, and communicate also with the longitudinal bores or ducts *a''*, that extend downward through the legs *a* and serve to drain any water entering the recesses or grooves *a'*.

The grooves *a'*, as best seen in Fig. 3, are substantially of keyhole shape; that is, they are enlarged interiorly throughout their length, and into these grooves extend the side edges of the metallic surface *b'*, such edges being expanded, as at *b''*, to a width greater than the width of the contracted portions *a'''* of the grooves *a'*, forming loops, and these expanded or enlarged parts are engaged by longitudinal rods D, of any desired cross-section, but preferably corresponding to the particular form which may be given the enlarged portions *a'''* of grooves *a'* in practice. The rods D are held against longitudinal displacement by means of pins *d*, one or more for each rod, said pins passing transversely through said rods and into orifices *a''* in the side bars A.

To the top of the rubbing-board B a head E is fitted, the said head being grooved at its under side to receive the top edge of the board, and above said head a head-board F is fitted, both the head E and head-board F fitting at their ends in the grooves *a'*.

The washboard is completed by a top bar G, which extends beyond the side bars A, and is recessed at its under side, as at *g g*, to receive the upper ends of said side bars and

form a brace for the latter against lateral displacement.

In putting the washboard together the rods D are entered between the expanded edges at each side of the rubbing-board B, and the latter, with its hooks C' and carrying the rods D, is slid into engagement with the grooved side boards A in an obvious manner, from the top downward, until the bottom edge of the said rubbing-board strikes the shoulders a^5 at the bottom of the grooves a' , the hooks C', when the rubbing-board is in the lowered position, extending into the ducts a^2 below the shoulders a^5 , and thus positively engaging the side bars; also with the parts in this position the pins d of the rods D are in line with the orifices a^4 of the side bars A and may be made to engage the latter. Thus the rods D, by bearing at their lower ends on the hooks C', prevent longitudinal displacement of the rubbing-board, and the rods are themselves held against longitudinal displacement by the pins d ; also the lateral displacement of the parts is prevented by the joint action of the hooks C' and the engagement of the rods D with the expanded or enlarged side edges of the rubbing-board within the enlarged ends of the grooves a' . The head-piece E and the head-board F are now successively slid into place, the head-board forming a backing for the pins d and effectively preventing their withdrawal. Finally, the cap-bar or top bar G is placed in position and made to engage the upper ends of the side bars A in the recesses thereof, and the rods D, which project upward through the bar G, receive nuts D', which complete the connection of parts.

The front or rubbing surface of the rubbing-board B is given a novel formation, as follows, to the end that its efficiency be increased: As appears best in Fig. 2, the rubbing-surface is made up of transverse alternating convexities and angularities e e' without intervening flat surfaces; that is, the convexities and angularities merge directly into each other at their bases. It will be seen, further, that the upper surfaces of the angular members are perpendicular to the plane of the rubbing-board, while the lower surfaces are disposed at an angle of about forty-five degrees both to the perpendicular surfaces and to the plane of the board.

Having thus described our invention, we

claim as new and desire to secure by Letters Patent—

1. A washboard having longitudinally-grooved side bars, a rubbing-plate whose side edges enter said grooves, and rods extending in the latter and engaging such edges of the plate, substantially as shown and described. 55 60

2. A washboard having side bars, a rubbing-plate having loops at its side edges, the loops extending into the said side bars, and rods extending longitudinally of the side bars and engaging the loops, substantially as described. 65

3. In a washboard, the combination, with side bars having longitudinal grooves which are enlarged interiorly as specified, of the intermediate panel composed of a filling-piece or body, and sheet-metal surfaces whose side edges are extended beyond the said body and expanded to fit the enlargements of the grooves, as shown and described. 70 75

4. A washboard having grooved side bars, a rubbing-plate, rods ranging longitudinally in said grooves and interlocking with extensions of the rubbing-plate, and pins preventing longitudinal displacement of the rods, substantially as described. 80

5. A washboard having side bars, a rubbing-plate having extensions engaging the side bars, rods ranging longitudinally of the side bars and engaging the rubbing-plate, means for holding said rods against longitudinal movement, a cap-piece at the upper ends of the side bars, the rods extending through the cap-piece and nuts engaging the ends of the rods and holding the cap-piece in place, substantially as described. 85 90

6. In a washboard, the combination, with the side bars provided with longitudinal grooves and longitudinal openings, the internal piece or body, the metallic plate extending from back to front, and the cross-rod held between the lower edges of the body and the plate, said cross-bar having hook-like ends that engage the openings in the side bars, as shown and described. 95

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Witnesses:

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