(No Model.)

## J. H. STRATMAN. WASHBOARD.

Patented Oct. 12, 1897. No. 591,704. Witnesses Eamath.

## United States Patent Office.

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## WASHBOARD.

SPECIFICATION forming part of Letters Patent No. 591,704, dated October 12, 1897.

Application filed January 16, 1897. Serial No. 619,478. (No model.)

To all whom it may concern:

Be it known that I, John H. Stratman, a citizen of the United States, residing at Cape Girardeau, in the county of Cape Girardeau 5 and State of Missouri, 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.

My invention relates to improvements in washboards of that kind which has its working surface made of coiled wire to provide an efficient rubbing-surface; and the objects of the invention are to construct the board in a novel manner, to provide for the free and quick discharge of the water from the working surface when the fabrics are being rubbed thereon, and to construct the board in a simple way, so as to clamp the individual strands of wire rigidly and securely in place within the frame of the washboard.

To the accomplishment of these ends my invention consists in the novel combination and arrangement of parts, which will be hereinafter fully described and claimed.

I have illustrated a washboard embodying my improvements in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my washboard. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a transverse sectional 35 view on the plane indicated by the dotted line 3 3 of Fig. 2. Fig. 4 is an enlarged detail sectional view showing the means for holding and spacing a series of wire strands. Fig. 5 is a detail perspective view of one of the 40 strands. Figs. 6 and 7 are longitudinal and transverse sectional views, respectively, of a modified construction of the washboard. Fig. 8 is a detail view, in side elevation, of a modified form of one of the strands which make up 45 the rubbing-surface, illustrating the flattened end of said strand; and Fig. 9 is an end elevation looking at the flattened end of the strand shown by Fig. 8 to show the form thereof.

Like letters of reference denote correspond-50 ing parts in all the figures of the drawings, referring to whichA A designate the side rails, B the top piece, and C and D are the top and bottom rails, all of said parts being united securely together to provide a strong rigid frame. The side rails 55 A are provided in their opposing faces with the longitudinal channels a a, which extend from the top rail C to the bottom rail D, and in these grooves are fitted the ends of the wire strands E.

The rubbing-surface of my washboard is composed or "built up" of a series of these wire strands E, which are arranged parallel to each other between the side, top, and bottom rails. Each individual strand consists of a se- 65 ries of wires, of suitable size, twisted together continuously from end to end, and the end portions of the strand are flattened and widened, as at ee, to provide broad tenons, the width of which is greater than the diameter of the 70 strand and the thickness of which tenons is nearly equal to the grooves a. When the strands are assembled in parallel relation to form the rubbing-surface, the widened tenons fit against one another in order to hold the 75 strands spaced apart and provide the openings or spaces between the twisted surfaces of the strands, and these tenons e fit snugly in the grooves of the side rails, so as to hold the strands in place and prevent them from 80 twisting or turning in the rails or washboardframe. I attach importance to having the individual wire strands spaced laterally to provide the openings between them, because such arrangement tends to facilitate the free 85 and unimpeded escape of water from the rubbing-surface when the fabrics are pressed and rubbed upon the strands, and to further such escape of the water I arrange the back F in a peculiar way to shed the water which flows 90 thereon after passing between the strands E. In the washboard shown by Figs. 2 and 3 a false backboard is used between the wire strands and the solid back G, and this false back, which is indicated at F, is bent into 95 concavo-convex form and clamped rigidly between the side rails A, so as to provide a water channel or space which is deeper at the middle of the board than it is at the sides thereof adjacent to the rails A. The solid 100 back G is a flat piece arranged next to the false back F, and the two backboards are fastened

rigidly in place between the side, top, and bottom rails by screws, nails, or other suit-

able fasteners.

To secure the individual wire strands E in 5 position against displacement and to hold them spaced apart, I provide the separating and fastening wires H. In Figs. 2, 3, and 4 these wires are shown in the form of staples, which embrace the strands and are driven to into the false back. These staples have their legs fitted between the adjacent strands and they overlap each other laterally, so that the staples assist in holding the strands in place and also space them apart, said staples lying 15 close up to the side rails A. In Figs. 6 and 7 of the drawings the wires are in the form of continuous lengths, one or more near each side rail of the board, and each wire is twisted or wrapped around the series of strands, so as 20 to bind them together and separate or space them apart to leave the water-passage openings between said strands. The ends of the continuous fastening and spacing wires may be secured to the rails or back of the board 25 in any convenient way.

In the construction of the washboard shown by Figs. 6 and 7 the wire strands are fitted in the grooved side rails and are bound securely together by the continuous wires, the ends of the cross-rubbing strands being flattened or not, as deemed advisable. Such a board may have the double back, as F G; but I prefer to employ a single concavo-convex back, as at I, which is held rigidly between the side, top, and bottom rails of the washboard-frame.

The backboard does not abut against the bottom rail D of the frame, but it terminates within said rail D, and it is cut out or recessed at j to provide a water-exit opening J between the lower edge of the backboard and 40 the bottom rail D, whereby the water can escape freely at the lower part of the wash-board.

My improved washboard has an efficient durable rubbing-surface, which is secured very 45 rigidly in place within the frame to prevent the wire strands from getting out of position and exposing the rough ends thereof, so that the wires will not cut and injure the hands when the board is in use. The board is constructed in a very simple and strong manner and it is cheap of manufacture.

Having thus fully described my invention, what I claim as new, and desire to secure by

Letters Patent, is—

In a washboard, the combination with a frame, of a series of spaced independent strands secured in said frame to provide spaces between the strands, a concavo-convex back also secured in the frame adjacent 6c to but out of contact with the strands and having a recessed lower end forming a water-exit opening between itself and the bottom rail of the frame, as set forth.

In testimony whereof I affix my signature 65

in presence of two witnesses.

JOHN H. STRATMAN.

Witnesses:

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