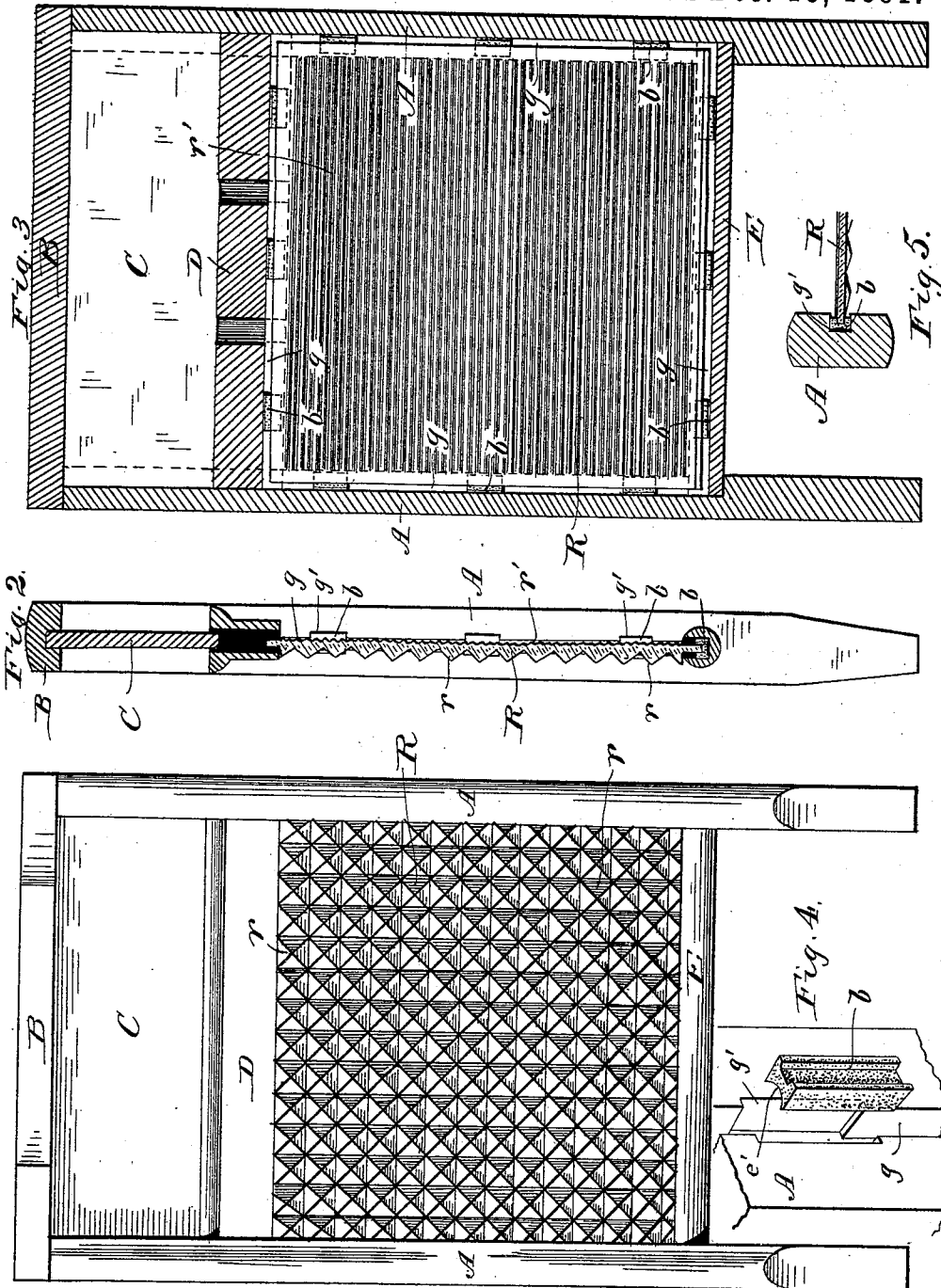


(Model.)

F. A. & R. W. BALCH.
WASH BOARD.

No. 465,405.

Patented Dec. 15, 1891.



Witnesses:
J. H. H. H.
C. H. Sturtevant.

Fig. 1.

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UNITED STATES PATENT OFFICE.

FREDERICK A. BALCH AND RELLA W. BALCH, OF NEILLSVILLE, WISCONSIN,
ASSIGNORS OF ONE-HALF TO WILLIAM G. KEOFF AND FRANK W. ARCHER.

WASH-BOARD.

SPECIFICATION forming part of Letters Patent No. 465,405, dated December 15, 1891.

Application filed April 6, 1889. Serial No. 306,187. (Model.)

To all whom it may concern:

Be it known that we, FREDERICK A. BALCH and RELLA W. BALCH, citizens of the United States, residing at Neillsville, in the county of Clark and State of Wisconsin, have invented certain new and useful Improvements in Wash-Boards; and we do 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.

Our invention relates to that class of wash-boards in which the rubbing-plate is composed of glass or analogous material. It is directed first to the construction or formation of the rubbing-plate with transverse corrugations or projections upon the one side and with pointed pyramidal projections upon the other side, whereby the same is adapted for use in the rapid cleansing of coarse cloths or for the more delicate handling of finer fabrics without injury thereto. It is also directed to the particular manner of mounting the glass rubbing-plate in the frame of the wash-board, whereby the swelling and warping of said frame will be prevented from breaking or cracking the relatively fragile or brittle plate.

With these ends in view our invention consists in the parts and combinations thereof hereinafter set forth and claimed.

In order to make our invention more clearly understood, we have shown in the accompanying drawings means for carrying the same into effect.

In said drawings, Figure 1 is a front view of a wash-board embodying our invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a rear view of the wash-board, the frame being shown in section. Fig. 4 is a perspective view of certain of the parts separated, illustrating the manner of forming the protecting-cushion hereinafter described. Fig. 5 is a sectional view of a portion of the wash-board.

Referring to the drawings, A indicates the side pieces of the wooden frame of the wash-board; B, the top piece; C, the soap-board; D, the upper cross-piece, which bounds and secures the upper edge of the rubbing-plate, and E the lower cross-piece, which extends from

one of the sides A to the other and holds the lower edge of said plate. The parts A, D, and E are provided along their inner sides with a groove *g* of somewhat greater width than the edges of the rubbing-plate and adapted to receive the same. The latter is shown at R and is formed of glass or analogous material molded into the desired form and subsequently annealed to decrease its liability to crack under changes of temperature. One of the faces of the rubbing-plate (shown in Fig. 1 and which we may term the "front") is formed with a series of coarse projections and corresponding intermediate creases adapted for the rubbing, working, and rapid cleansing of coarse and heavy textile fabrics. The other side of the board (shown in Fig. 3 and which may be termed the "rear") is formed with a series of fine projections or corrugations and intermediate shallow creases. The latter surface is adapted for the rubbing and washing of fine and delicate fabrics without injury thereto. The rubbing-plate is mounted in the frame in such manner as to expose either of said surfaces for use, as shown in the drawings.

In Fig. 1 the coarse projections are shown in the form of obtuse pyramids *r*, the points of which are well adapted to score, sharply bend, and so work such coarse, thick, or heavy fabrics as may be applied thereto as to thoroughly and rapidly cleanse the same. The rear side of the plate is formed with projections in the form of parallel corrugations *r'*.

The grooves *g*, already referred to, are provided at intervals with recesses *g'*, of rectangular shape and of greater width than said grooves, as shown in Fig. 4. These recesses are adapted to receive and to hold in place rubber cushions or packing-pieces *b*, against the inner faces of which the edges of the rubbing-plate rest, thus permitting the frame, between which and the plate said cushions are interposed, to swell and warp, as is inevitably the result of the use of the wash-board, without bringing any strain to bear upon the rubbing-plate or causing any danger of the cracking or the breaking of the latter.

In order to enable the cushions *b* to obtain a

firm hold of the rubbing-plate upon the sides as well as upon the edge faces and at the same time to give additional elasticity and capacity of yielding to said cushions, the latter are hollowed out upon their outer surfaces, as indicated at *e'* in Fig. 4. When, therefore, the edge of the rubbing-plate is pressed against the inner surface of said cushions, said inner faces are pressed toward the bottom of the recesses *g'* and the edges of the inner surface are pressed or bent inward around the corners of the rubbing-plate. The latter is thus firmly though elastically held against movement in lines at right angles to its surface.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a wash-board, a glass rubbing-plate having one surface molded with fine and shallow transverse corrugations and the other surface formed with coarse and deep projections in the form of obtuse pyramids, whereby one

side is adapted for the cleansing of coarse cloths and the other for the washing of fine fabrics, substantially as set forth.

2. In a wash-board, the combination, with the frame and the glass rubbing-plate, of the packing *b*, hollowed upon its inner face, as shown, interposed between said plate and frame, substantially as set forth.

3. In a wash-board, the combination, with the rubbing-plate, of the frame having the grooves *g* and the recesses *g'* of greater width than said grooves, and the cushions *b*, hollowed upon their outer faces, as described, seated in said grooves and engaging the rubbing-plate, substantially as set forth.

In testimony whereof we affix our signatures in the presence of two witnesses.

FREDERICK A. BALCH.
RELLA W. BALCH.

Witnesses:

H. W. DEMING,
A. F. SNYDER.