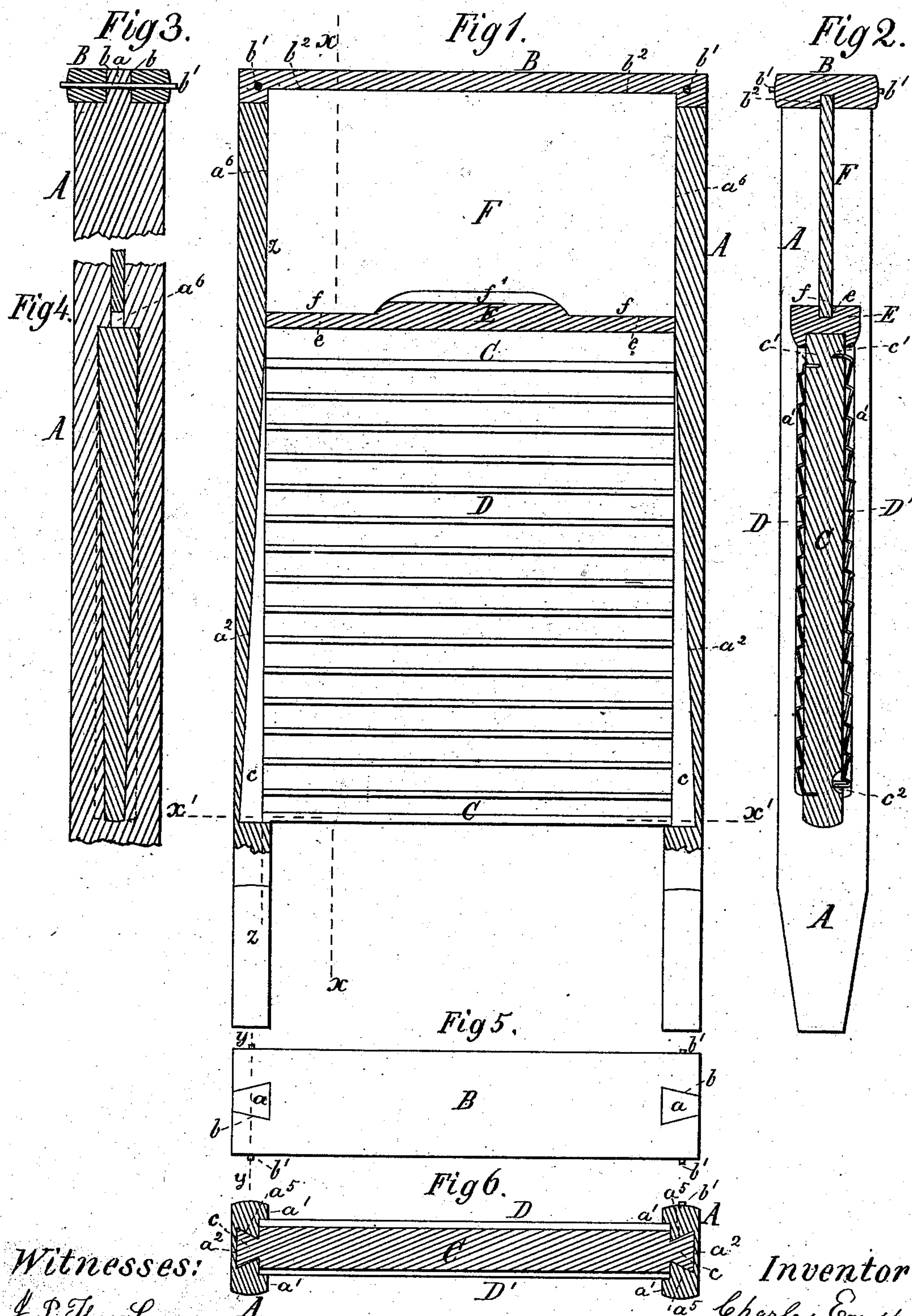


2 Sheets—Sheet 1.

**No. 239,474.**

**Patented March 29, 1881.**



Witnesses:  
J. P. Theo. Lang  
N. A. Hall

Inventor:  
Charles Ernest  
by his atty  
Mason Lemick Hanna

(Model.)

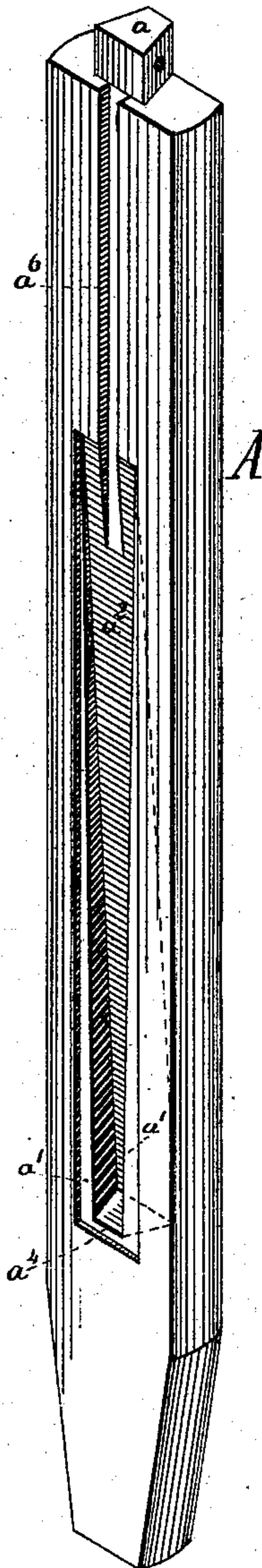
2 Sheets—Sheet 2.

C. ERNST.  
Wash Board.

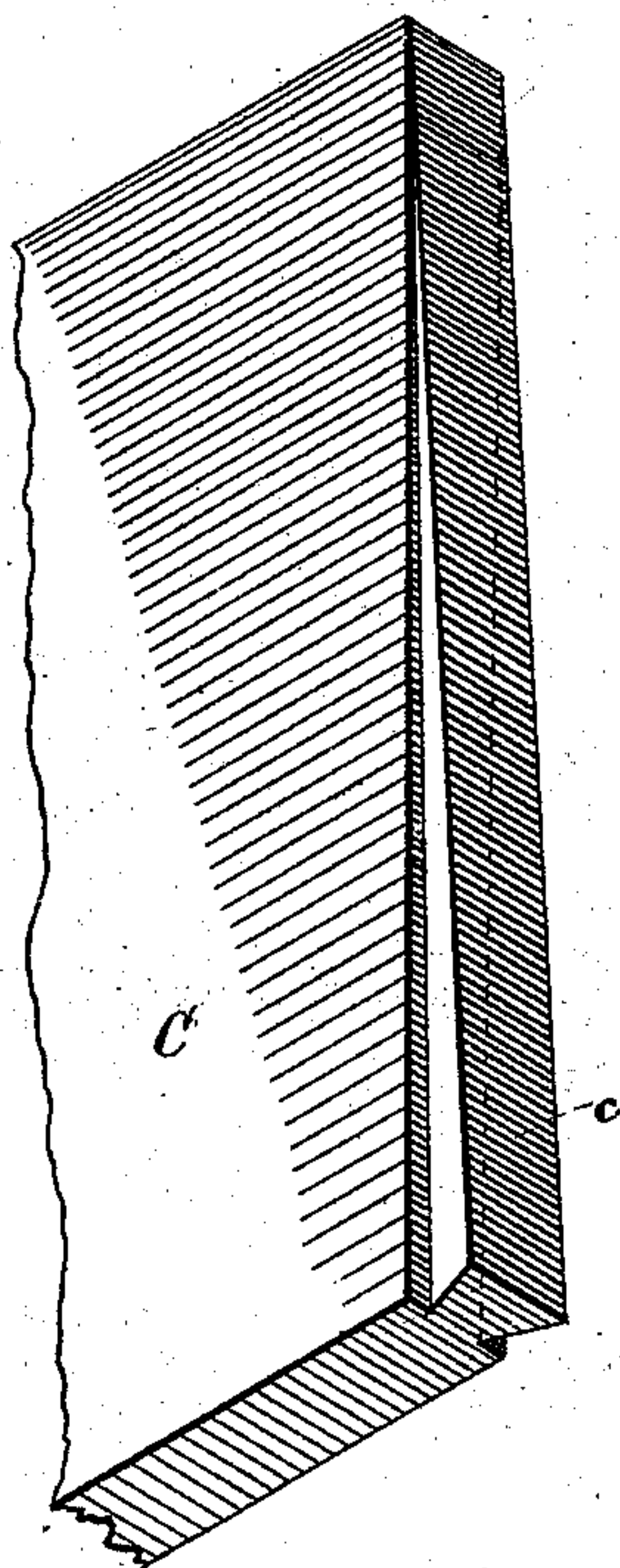
No. 239,474.

Patented March 29, 1881.

*Fig 7.*



*Fig 8.*



*Witnesses:*

*J. P. Theo. Lang,*  
*N. A. Hall.*

*Inventor:*

*Charles Ernst*  
*by his Attorneys*  
*Mason Fenwick Hawman*



# UNITED STATES PATENT OFFICE.

CHARLES ERNST, OF TIFFIN, OHIO, ASSIGNOR OF ONE-HALF TO THE TIFFIN UNION CHURN COMPANY, OF SAME PLACE.

## WASH-BOARD.

SPECIFICATION forming part of Letters Patent No. 239,474, dated March 29, 1881.

Application filed December 20, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES ERNST, a citizen of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have  
5 invented a new and useful Wash-Board, of which the following is a specification.

My invention relates to certain improvements in wash-board frames, as hereinafter described, and specifically claimed.

10 The objects of my invention are to make a firm and compact wash-board in a cheap and expeditious manner, and afford facilities for the renewal of the rubbing-surfaces when damaged or worn out, and to avoid the use of either nails  
15 or screws for fastening the parts together, and thus prevent injury to the clothes from the oxidation of metallic fastenings. I attain these objects by the construction illustrated in the accompanying drawings, in which—

20 Figure 1 is a central longitudinal section through the frame proper, showing the soap-board and rubbing device in full. Fig. 2 is a section in the line  $xx$  of Fig. 1. Fig. 3 is a section of the upper portion of the frame in the line  $yy$  of Fig. 5. Fig. 4 is a section of a portion of the frame and soap-board, and of the dovetailed end of the rubbing-board, in the line  $zz$  of Fig. 1. Fig. 5 is a top view of the  
25 frame. Fig. 6 is a horizontal section of the frame in the line  $x'x'$  of Fig. 1. Fig. 7 is a perspective view of one of the side bars of the wash-board, and Fig. 8 is a perspective view of a portion of the rubbing-board.

Similar letters of reference are used to indicate the same parts throughout the several  
35 views.

The side bars, A, and the head-bar B constitute the frame proper of my wash-board. Each side bar is at the top provided with an upright  
40 dovetail tenon,  $a$ , which tenons are snugly fitted into the ends of the head-bar B, as at  $b$ , and when thus fitted together they are secured against separation by means of transverse wooden pins  $b'$ . The opposing sides of the two side  
45 bars are provided with inner rabbets,  $a'$ , and doubly-dovetailed grooves  $a^2$ , said grooves having a longitudinal inclination, as in Fig. 1, and a longitudinal downward contraction, as shown at  $a^4$  in Fig. 4, and being also of dovetailed  
50 shape in a transverse direction, as shown at  $a^5$

in Fig. 6. These doubly-dovetailed grooves are occupied by corresponding doubly-dovetailed formations  $c$  on both sides of the rubbing-board C. The described doubly-dovetailed formations in the side bars, A, and on the  
55 rubbing-board C, are uniformly reduced in an upward direction, and at the upper end of the rubbing-board they coincide with the main width of the rubbing-board C, and with the inner rabbets,  $a'$ , of the side bars, A—or, in other  
60 words, these doubly-dovetailed formations terminate at the upper corners of the rubbing-board. By this construction a straight continuous dovetailed groove in the side bars, A, terminating at the upper ends of the same, is  
65 formed, and consequently, while the requisite holding and locking surface is secured, the side bars are not greatly weakened.

The rubbing-board C is provided with narrow grooves  $c'$ , into which the ends of the metallic rubbing-surfaces D D' are fitted, and instead of such grooves gutters  $c^2$  may be provided, into which the ends of the rubbing-surfaces, when doubled, may be set, as shown in Fig. 2. Both of the rubbing-surfaces D D',  
70 thus secured to the rubbing-board C, are edge-wise held in position by the rabbets  $a'$  of the side bars, A.

A cap, E, is fitted over the upper end of the rubbing-board, as clearly shown in Fig. 2, and  
80 in the upper side of this cap E, near each of its ends, a groove, as at  $e$ , is formed, and into these grooves  $e$  the two legs  $f$  of the soap-board F are inserted, while the side edges thereof extend into vertical grooves  $a^6$  of the side bars, A, thus securing steadiness to the cap E and upper part of the rubbing-board C. The space  
85  $f'$ , between the legs  $f$  of the soap-board F and the top of the cap E, is left for the purpose of draining away water or suds which casually collect upon the soap-board. The upper portion of the soap-board F extends into a groove,  $b^2$ , in the head-bar B, and this, in conjunction with the grooves  $a^6$  of the side bars, gives firmness to the upper portion of the frame and  
90 prevents warping.

These wash-boards, when manufactured in great numbers, are packed for shipment by taking them apart and putting the parts closely together in such order that no spaces are left  
100



between them, which is not possible with the ordinary wash-board shipped whole. By this means space is economized and expense for freight saved. When they are to be put into condition for use or sale the rubbing-boards, with the rubbing metal surfaces upon them, are inserted into the doubly-dovetailed grooves in the side bars and driven home therein. The caps are next inserted, whereupon the soap-board is adjusted in position and the head-bars fitted over the dovetailed tenons of the side bars, and the pins inserted into the holes in the ends of the head-bars. This operation reversed will result in separating all the parts of the frame.

As similar parts of all these wash-boards are constructed alike, it is evident that any part broken, lost, or worn away can be easily replaced by simply buying the same from the dealer and applying it in place of the old one; but the main utility in this regard is in the capability of replacing a worn-out or damaged rubbing-surface by a new one.

I deem it proper to state that, while my construction of a wash-board dispenses with the use of metallic fastenings, I do not confine myself to the use of wooden pins for preventing the interlocked parts from separating, for it is evident that metal pins might be used without departing from the principle of my invention.

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

1. In combination with a wash-board frame, a rubbing-board provided with means, as described, on its side edges, whereby it is held from transverse movement in the side grooves

of the frame, while it is held from vertical movement by means, as described, which are, with said board and frame, maintained in position by two pins passed through the upper ends of the side bars and through the top bar, substantially as described.

2. In a wash-board, the combination of a rubbing-board, C, having doubly-dovetailed tenons  $c$ , and two side pieces, A, having double-dovetailed grooves  $a^2$ , substantially as and for the purpose described.

3. In a wash-board, the side bars, A, having inner rabbets,  $a'$ , which communicate with double-dovetail grooves  $a^2$ , in combination with the rubbing-board C, having doubly-dovetailed tenons, rubbing-surfaces D D', and cap E, substantially as described.

4. In a wash-board, the side bars, A, having double-dovetail grooves  $a^2$  and plain grooves  $a^6$ , in combination with the rubbing-board C, provided with double-dovetail tenons, the soap-board F, having legs  $f$ , and the cap E, having grooves  $e$ , substantially as described.

5. In a wash-board, the side bars, A, provided with double-dovetail grooves, and having dovetail-tenons  $a$ , in combination with the head-bar B, having dovetail-notches  $b$  and fastening-pins  $b'$ , and the board C, having double-dovetail tenons, substantially as described.

Signed in presence of two subscribing witnesses.

CHARLES ERNST.

Witnesses:

D. B. LAIRD,  
C. F. MORLOCK.