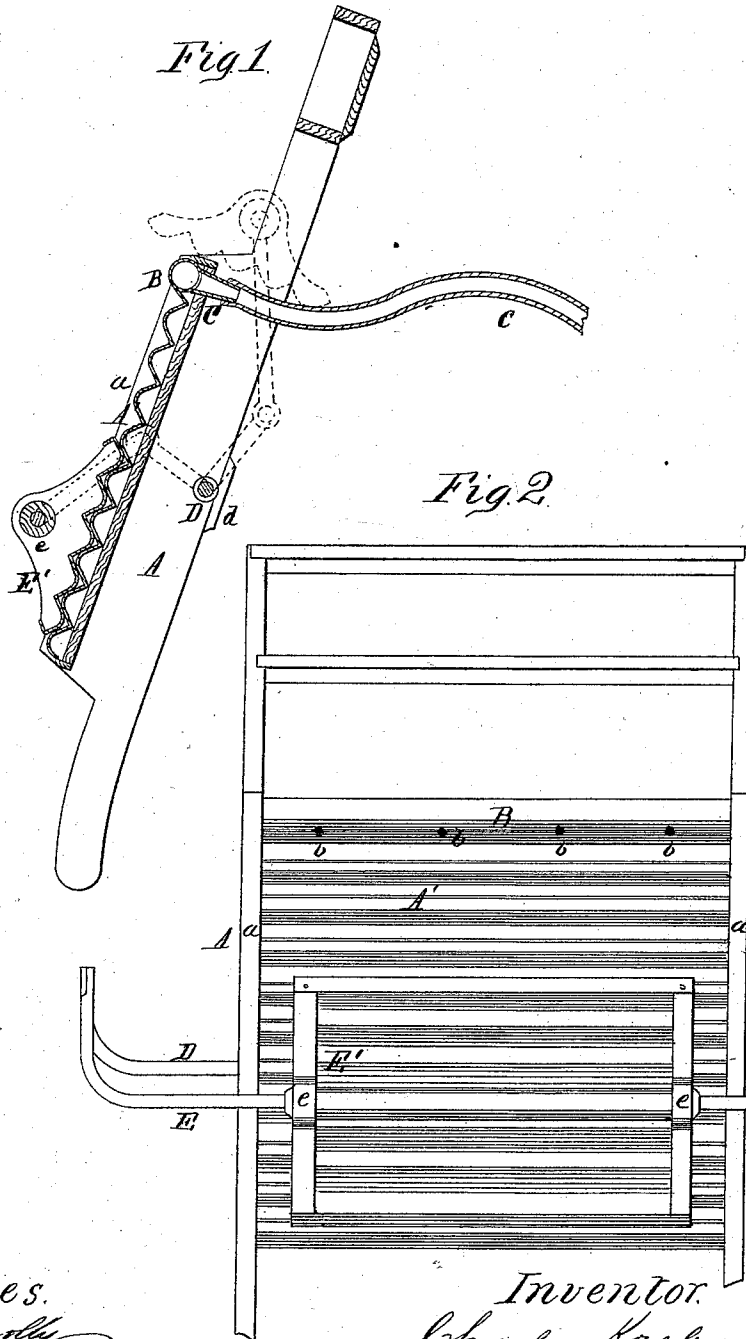


C. KREBS.
Wash-Boards and Rubbers.

No. 137,847.

Patented April 15, 1873.



Witnesses.
Martin Connolly
Anthony Connolly

Inventor.
Charles Krebs
Connolly Bros
attys.

UNITED STATES PATENT OFFICE.

CHARLES KREBS, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN WASH-BOARDS AND RUBBERS.

Specification forming part of Letters Patent No. 137,847, dated April 15, 1873; application filed February 1, 1873.

To all whom it may concern:

Be it known that I, CHARLES KREBS, of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Combined Wash-Board and Rubber; 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 drawing which forms part of this specification.

My invention has reference to wash-boards; and it consists in the construction, combination, and arrangement of parts as hereinafter described. This invention consists of a wash-board and rubber, the latter being mounted on a swiveled arm, and so arranged that it can be moved by hand to and fro over the former. For the purpose of wetting the garments or material operated upon, a perforated tube is located at the head of the board communicating with a tube which conveys water from any suitable reservoir.

Referring to the drawing, A shows a wash-board, differing from the ordinary construction in the particulars hereinafter mentioned. A' shows the corrugated portion thereof, sustained between the uprights or lugs *a a*, in order to permit the rubber to be drawn up and dropped out of the way to allow hand-washing on the board, and also to bring the board nearer to the operator, and thereby to prevent stooping. B is a pipe located above the corrugations, which may be made in one piece with said corrugations, or separate therefrom. It communicates with any suitable reservoir by means of a tube, C, (which I prefer to make of flexible material,) which conveys water discharged upon the board through the orifices *b b*. D is a shaft arranged laterally beneath the wash-board, and sustained in place by the clips *d d*. This shaft is bent, as shown, at both extremities, where it is jointed to a similarly-shaped arm, E, which sustains the rubber E' passing through the ears *e e* thereof. The shaft D is located at a point between the ends of the corrugated portion of the board, so that the rubber may pass, while in operation, on both sides of the point of oscillation of said shaft. The arm E and shaft D are bent at their ex-

tremities at right angles to their middle portions, or substantially at right angles thereto.

It will be observed that the joints or elbows where the bent ends of the arm E and shaft are pivoted together do not pass beyond the surfaces of the board or edges of the sides pieces; and hence do not interfere with the operation of the rubber by coming in contact with the sides or bottom of the wash-tub.

The under side of the rubber is corrugated, as seen, the corrugations on both it and on the board being made in the peculiar manner plainly shown in the drawing, *i. e.*, the groove is angular or V-shaped, while the ridge is rounded, so that when the ridges enter the grooves there will be a space left for the water. Were both rounded or grooved alike they would fit snugly together and no such space would be left.

The operation of this machine is as follows: The board, for convenience, is placed in a tub in an inclined position, and at about the usual angle adopted in washing. The material to be operated upon, being soaped, is then placed upon the board, the water turned on, and the rubber brought to bear by passing it up and down, pressure being exerted according to the character or quality of the material which is being washed.

What I claim as my invention is—

1. In a combined wash-board and reciprocating rubber, the shaft D journaled between the ends of the corrugated portion A, and having its extremities bent, as shown and described, in combination with the reciprocating rubber E', and with the arm or shaft E having its ends bent and jointed to the shaft D, substantially as and for the purpose specified.

2. The combination, with the wash-board A, of the tubes B and C, constructed and arranged substantially as specified, to permit of a continuous flow of clean water over the surface of the board.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1873.

CHARLES KREBS.

Witnesses:

GEO. C. SHELMEKDINE,
M. DANL. CONNOLLY.