

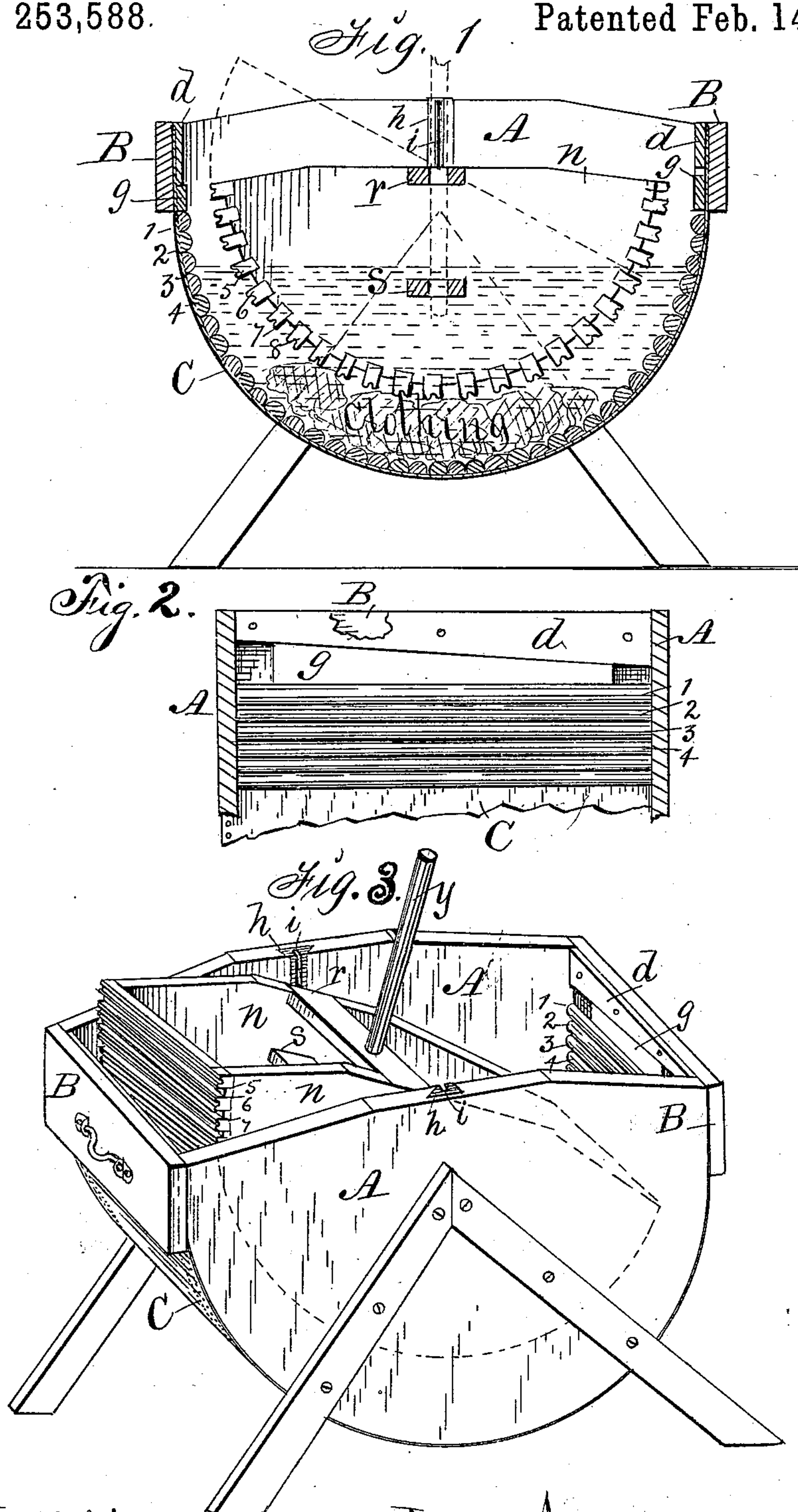
(No Model.)

M. C. CUMMINGS.

WASHING MACHINE.

No. 253,588.

Patented Feb. 14, 1882.



Witnesses:
Fred Hampton,
P. C. Kenyon.

Inventor:
Mark C. Cummings,
By Thomas G. Orwig, atty.

UNITED STATES PATENT OFFICE.

MARK C. CUMMINGS, OF DES MOINES, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 253,588, dated February 14, 1882.

Application filed August 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARK C. CUMMINGS, of the city of Des Moines, and county of Polk, and State of Iowa, have invented a new and Improved Washing-Machine, of which the following is a specification.

Heretofore washing-machines have had concave sheet-metal bottoms and convex self-adjusting rubbers that rested upon clothing placed in the water in the tub and between the corrugated surfaces of the concave bottom and the convex rubber.

My invention relates to the manner of combining a detachable wash-board surface with a tub composed of semicircular wooden sides, wooden end pieces, and a flat sheet-metal bottom fixed to the curved edges of the wooden sides.

Heretofore half-round wooden bars have been placed in parallel position to each other across the top surface of the concave sheet-metal bottom of the tub, and secured by fixing end pieces to the tub to overlap the upper bars at each end of the inverted arch composed of the series of parallel bars; but a wash-board surface thus formed to abut against fixed end pieces will shrink, so the bars will become loose and displaced; and when they are in place offensive sediment gathers between and under them, that cannot be readily removed. To overcome these objections I provide a means for adjusting the bars relative to each other and the ends of the tub in such a manner that the complete concave wash-board surface of the tub can be readily expanded and contracted at pleasure to compensate for the alternate shrinking and swelling of the wooden bars, and also in such a manner that the complete series of bars can be readily removed at pleasure for the purpose of getting away sediment that accumulates between and under them, and then again replaced and fastened by means of detachable and adjustable keying-pieces and fixed re-enforcing pieces, as hereinafter fully set forth.

Figure 1 of my accompanying drawings is a transverse section of a tub and washing-machine of common form, to which my improvement is applied. Fig. 2 is a detail view of a section of my adjustable and detachable wash-board surface. Fig. 3 is a perspective view

of a complete machine, in which the series that form the concave wash-board surface in the tub are locked together and in proper position for use.

A A are the semicircular wooden sides of the tub. Their corners are cut off square to receive the wooden end pieces, B, that are nailed thereto after the sides have been connected by nailing a flat sheet-metal bottom, C, to their curved edges.

d d are re-enforcing pieces, made of wood and fitted to and nailed fast on the insides of the ends B, to aid in securing the top edges and ends of the concave sheet-metal bottom C, and also to aid in fastening and adjusting the detachable wash-board surface, for which latter purpose their lower edges are made tapering, as clearly shown in Fig. 2.

1 2 3 4 represent a series of half-round wooden bars of uniform size, placed flat upon the concave sheet-metal bottom C, so that they will be in parallel position relative to each other, as required, to form a continuous corrugated surface that will extend between the wooden sides A, nearly up to the tapering under sides of the fixed re-enforcing pieces d. To fasten and adjust this detachable wash-board surface thus placed, I insert keying-pieces g, that have straight edges on one side, to engage the square ends of the removable wash-board surface, and tapering edges on their opposite sides, corresponding with the tapering edges of the fixed re-enforcing pieces d. By simply moving the keying-pieces g, thus placed, longitudinally by the pressure of the hand or by means of a hammer, they can be readily operated to adjust and fasten the removable series of bars 1 2 3 4 as required for use or loosen them as required for removing sediment or making repairs.

I am aware that keying-pieces of like form have been used in printers' galleys and chases for locking up forms, and for various other purposes. I therefore do not claim that there is novelty in the forms of my re-enforcing pieces and keying-pieces; but what I claim as my invention, and desire to secure by Letters Patent, is a novel combination of common elements to accomplish the results contemplated.

I claim—

5 In combination with a washing-machine tub composed of semicircular wooden side pieces, A, wooden end pieces, B, and a sheet-metal bottom, C, the fixed re-enforcing pieces *d* the detachable wash-board surface composed of series of wooden bars 1 2 3 4, and the adjustable and detachable keying-pieces *g*, substan-

tially as shown and described, to operate in the manner set forth, for the purposes specified.

MARK C. CUMMINGS.

Witnesses:

L. A. WILKINSON,
FRED HAMPTON.