(Model.)

D. BLAKESLEE.

WASHING MACHINE.

No. 354,529. Patented Dec. 21, 1886.

Fig. 1.

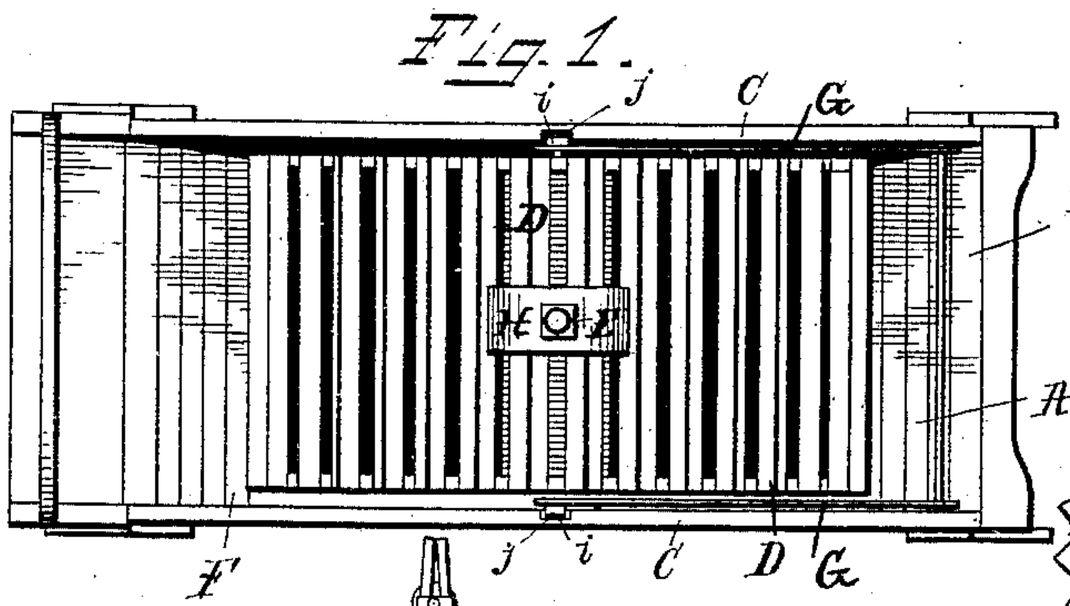


Fig. 2.

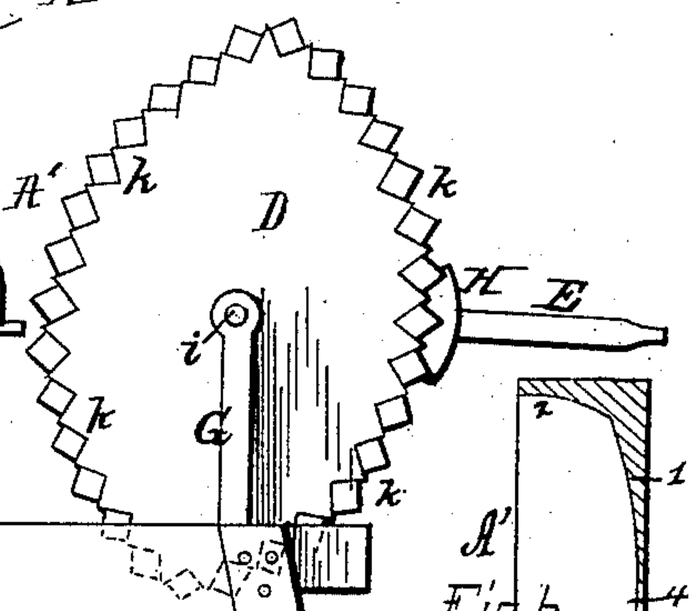
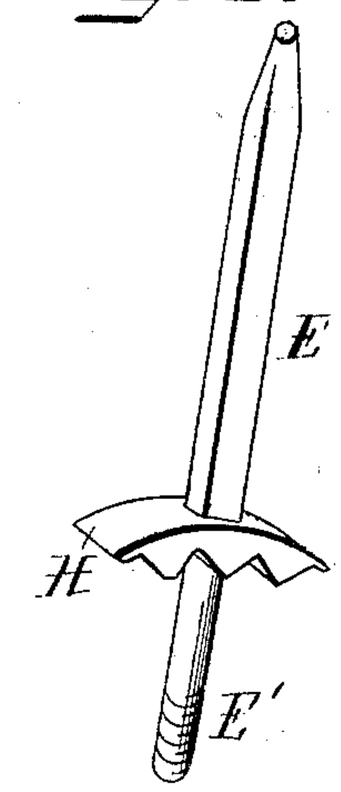


Fig. 5.



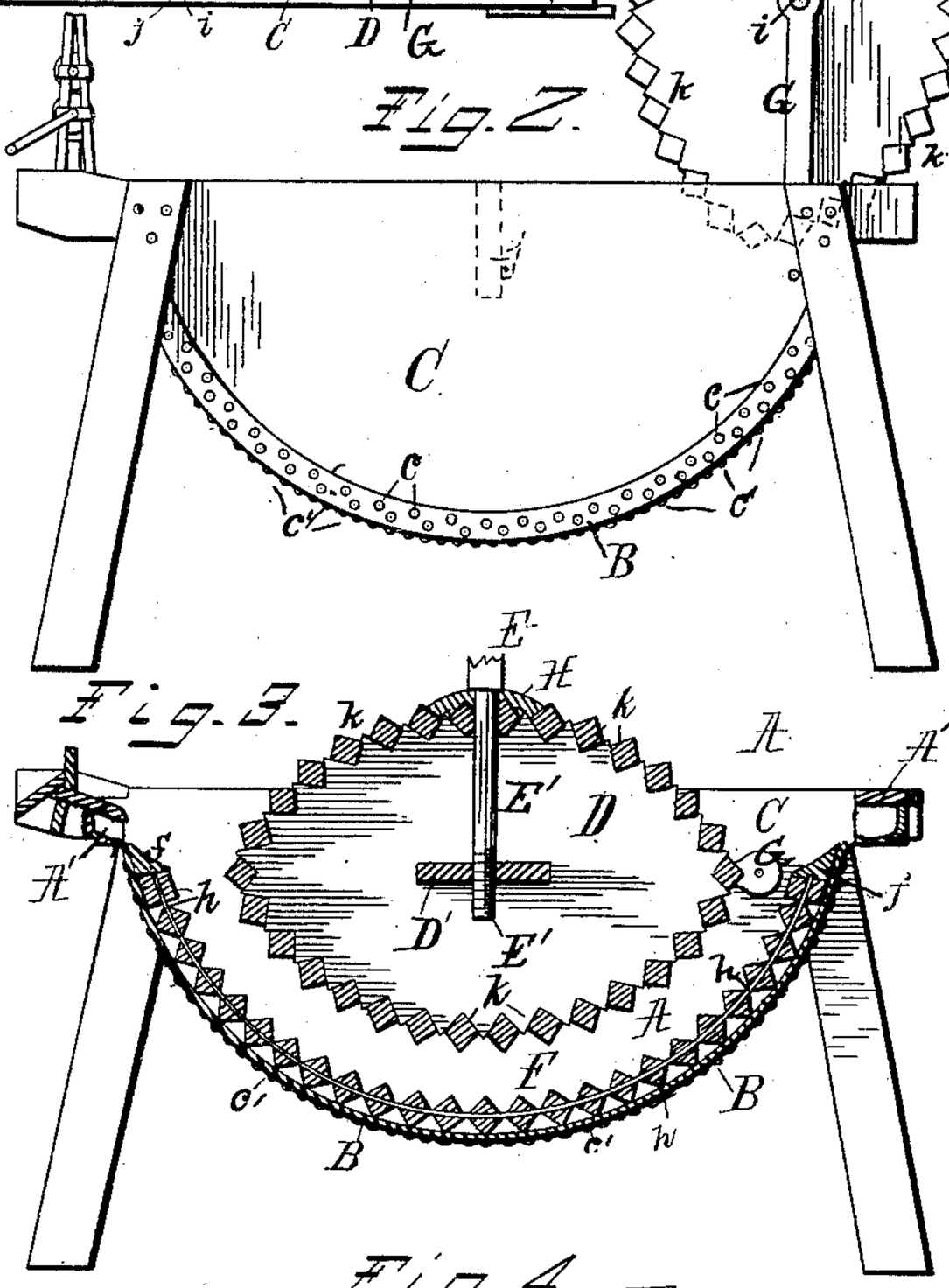


Fig. 6.

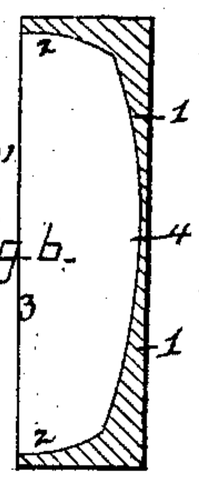


Fig. 7.

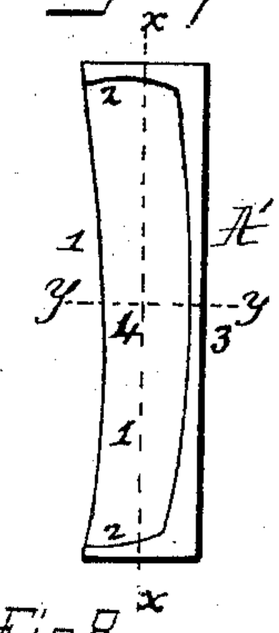


Fig. 8.

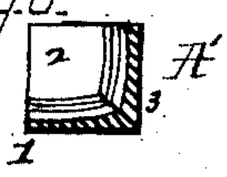
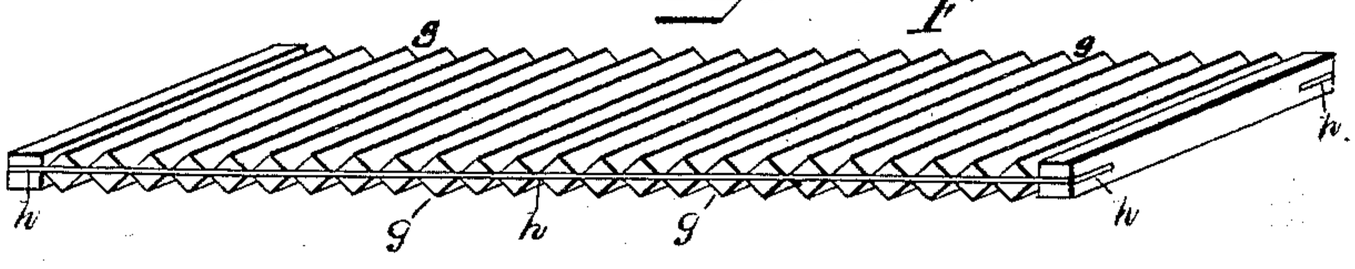


Fig. 4.



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Atty.

UNITED STATES PATENT OFFICE.

DAN BLAKESLEE, OF LIMESTONE, NEW YORK.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 354,529, dated December 21, 1886.

Application filed May 18, 1886. Serial No. 202,565. (Model.)

To all whom it may concern:

Be it known that I, DAN BLAKESLEE, a citizen of the United States, residing at Limestone, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Washing-Machines; 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 washing-machines, particularly that class of machines in which a rubber is suspended within the suds-box and rocked by a hand-lever applied thereto, the washing being effected by the action of the rubber as it rocks back and forth over the clothes, which are placed upon the bottom of the suds-box beneath said rubber; and my said invention consists in certain details of construction of the parts comprising said washing-machine, as will be hereinafter more fully described, and pointed out in the claims.

The object of this invention is to so form the rubber and removable bottom as to adapt them for use upon either or both sides thereof, so that when one side is worn out the other side may be used, thereby increasing the length of service of the machine. Provision is also made for the return of the water to the suds-box that may escape over the ends of the same during the operation of washing. The hand-lever is made removable, and the bottom of the suds-box is made of a single piece of sheet metal, whose edges are bent over the sides of the box and there nailed, as well as along the bottom of the box, so that leakage is prevented.

Referring now to the accompanying drawings for a better understanding of the details of construction of my invention, Figure 1 represents a plan, Fig. 2 a vertical side elevation, and Fig. 3 a central vertical sectional elevation, of a washing-machine constructed according to my invention. Fig. 4 is a view in perspective of the removable and reversible slotted false bottom, showing the construction of the same. Fig. 5 represents the removable hand-lever for operating the rubber as detached therefrom. Fig. 6 represents a longitudinal sectional view on the line *x x* of Fig. 7 through the returning-chamber at the ends of the suds-box, showing the curvature of the bottom of said chamber from end to end thereof; and Fig. 7 a plan, and Fig. 8 a transverse sectional elevation on the line *y y* of Fig. 7, of said chamber in further illustration of the longitudinal and vertical curvatures of the back and end walls thereof.

A is the suds-box, having a curved sheet-metal bottom, B, and vertical sides C, of wood.

D is the rubber, E the hand-lever thereof, and F the removable false bottom, which constitute the essential parts of the machine.

The suds-box A is formed at each end with a chamber, as at A′ A′, which extends the whole width of the said box, and the bottom 1, as well as sides 2, and back portion, 3, of said chamber curve or are hollowed out from their ends toward the center 4 thereof, where the curvature is the greatest, whereby the water as it enters said chambers A′ is directed from the sides of the box toward the center thereof, and again returned thereto, as seen in Figs. 6, 7, and 8.

The bottom of the suds-box is, as before stated, of sheet metal, whose edges are brought over upon the edge of the wooden sides C and against the face thereof, where it is nailed, as seen at *c*, and said bottom is also nailed along the bottom into the edge of the sides C, as at *c′*. Upon this bottom B is placed the removable and reversible slatted bottom F, which is held in position by cleats *f* at the top edge of the suds-box, against which it abuts. This bottom F is, as shown in Fig. 4, composed of a series of square-shaped slats, *g*, centrally along the ends of which is run a narrow flexible metal strip, *h*, which secures said slats together in their proper position and permits the said bottom to be curved or bent to conform to the curvature of the bottom of the suds-box, as seen in Fig. 3. The slats *g* of this bottom are, as seen in Figs. 3 and 4, so arranged upon the securing-strips *h* that both sides of the bottom will be alike—that is, formed of a series of sharp angles to effect the rubbing of the clothes. The object of this is to adapt the bottom not alone to be removable for cleansing the machine, but so that it may be reversible—that is to say, when one side is worn out it may be turned over and the other side used.

The rubber D is made elliptical in form, of two ends or heads connected by a series of square-shaped slats, *k*, as seen in Figs. 2 and 3, and said rubber is suspended within the suds-box by hangers or arms G, secured to the center of the rubber and to the sides of the suds-box. At the outer ends of these arms G gudgeons, as at *i*, Figs. 1 and 2, are provided, which slide in a bearing-slot, *j*, in the top inside surface of the sides C of the suds-box, at the bottom of which slots the gudgeons rest when the rubber is in position for washing, and said slots are of such depth that the rubber will be suspended just above the bottom F, as seen in Fig. 3.

Longitudinally across the center of the rubber D is a center brace, D′, at the center of which is a screw-hole for receiving the threaded end E′ of the hand-lever E, whereby the same is held in its proper position. As before stated, the rubber is of elliptical form, and the slats *k*, composing the same, are square shaped in cross-section, with one of the angles projecting from the same, whereby said rubber is adapted to be reversed and used upon one or the other side thereof by a simple reversal of the position of the hand-lever, which hand-lever is, as before stated, provided at one end with a threaded shank, E′, upon which a curved and serrated piece, H, is placed, which bears against a shoulder on the lever E and upon the top of the slats, as seen in Fig. 3, whereby a secure bearing is made for said lever, and the same is held securely in place within the rubber. To reverse the position of the rubber for use upon its opposite side, all that is necessary is to unscrew the lever and insert it through the opposite side of the rubber and again screw it up tight, until the piece H is brought up flush against the slats of said rubber, when the parts are again in position for use.

When charging the machine with clothes, or cleansing the same, the rubber is tilted back over one end of the same, as seen in Fig. 2, while Figs. 1 and 3 represent the position of the parts while washing.

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

1. In a washing-machine, in combination with the suds-box A, the elliptical rubber formed of heads D, connected by angular slats *k*, and central cross-brace, D′, having a screw-threaded hole therein, combined with the removable hand-lever E, having a screw-threaded shank, E′, and curved serrated piece H, and hangers G, substantially as and for the purposes set forth and shown.

2. In a washing-machine, the combination, with the suds-box A, having the cleats *f f* at each end thereof, and rubber D, of the false bottom F, formed of a series of square-shaped slats, *g*, whose opposing angles project from the top and bottom of said bottom, and flexible metal strips *h h*, placed at the ends of said slats and connecting the same together, substantially as described and shown, whereby said bottom may be reversed for use upon opposite sides thereof, and when so reversed will present the same series of sharp angles to the rubber, for the purposes specified.

3. In a washing machine, the suds-box A, formed at each end with a return-chamber, A′ A′, whose bottom 1, ends 2, and back 3 are curved toward the center 4 of said chamber, substantially as and for the purposes described and shown.

DAN BLAKESLEE.

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