

D. F. Williams,

Wringer,

N^o 51,888.

Patented Jan. 2, 1866.

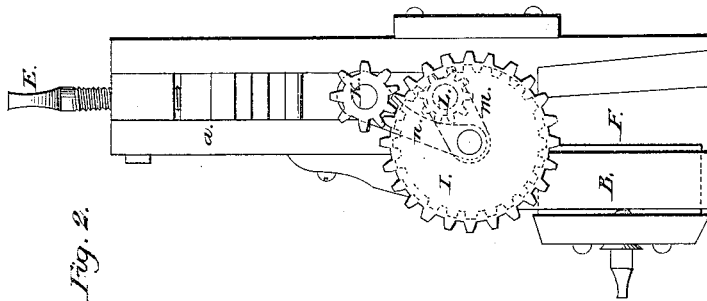


Fig. 2.

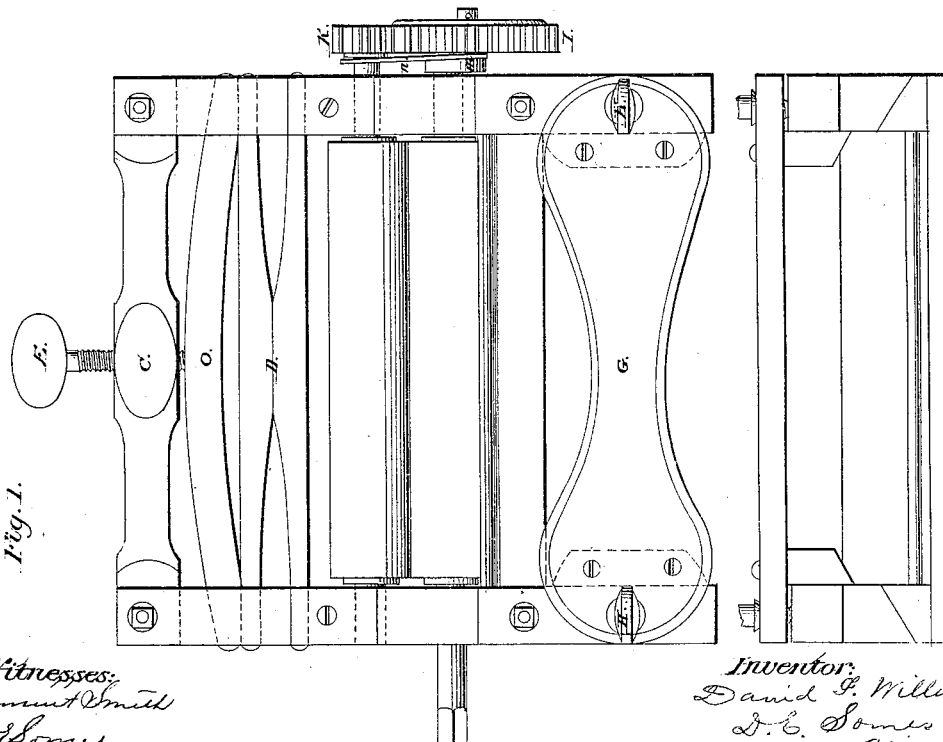


Fig. 1.

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UNITED STATES PATENT OFFICE.

DAVID F. WILLIAMS, OF CUMBERLAND, RHODE ISLAND.

CLOTHES-WRINGER.

Specification forming part of Letters Patent No. 51,888, dated January 2, 1866.

To all whom it may concern:

Be it known that I, DAVID F. WILLIAMS, of Cumberland, in the county of Providence and State of Rhode Island, have invented a new and valuable Improvement in Clothes-Wringers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The nature of my invention consists in providing means whereby the rollers of a wringer may be allowed to separate without throwing the cog-wheels out of gear.

It also consists in providing better springs than have heretofore been used for keeping the rollers in their proper places; also, better means than have heretofore been invented for attaching the machine to a wash-tub, and an improved method for guiding the suds from the rollers into the tub.

To this end I construct a frame of two upright posts cut off and slotted at their bottoms, as represented on Fig. 2, where one of them is shown marked A. The upper ends of these posts are also slotted down to a point immediately below the lower roller, where they form boxes upon which the gudgeon of the lower roller revolves. On the sides of these posts I attach other false posts, (marked B.) These latter are attached to the former by bolts, nuts, and screws at a point immediately above the lower slots on the main posts, and by screws which pass through the said false posts near their upper ends. The gudgeon of the upper roller rotates in movable blocks placed in the upper slots of said main posts, the movements of which are regulated by the grasshopper-springs—additional spring and screw herein-after described. At the upper end of the upper slot in said main posts I place a cross-bar, (marked C,) which is held in its place by bolts, nuts, and screws, or other suitable devices.

Above the aforementioned movable blocks, and resting on the same, I place two grasshopper-springs, (marked D,) and resting on said grasshopper-springs I place an additional spring, bent upward at its middle, (marked O.)

Passing through the cross-bar above mentioned is a screw, (marked E.) This screw has

its point resting upon the spring O, and pushes it down upon the said grasshopper-springs with such force as may be required for the proper working of the machine.

I fasten a slat across the said main posts, extending from a point immediately below the upper end of the lower slots, and running from thence upward to about the point of junction between the rollers. I also fasten a dripping-board in said main posts in grooves cut therefor. It is placed on an angle of about forty-five degrees with the slat above mentioned, and its lower edge is separated from said slat by about half an inch of space. This device secures a flow of the suds from the rollers and wet garments through said open space into the tub.

My device for attaching my wringer to a circular wash-tub is as follows, namely: The lower end of each side of the upright frame is composed of two pieces, one of which is screwed onto the other, as above mentioned; and the bottoms thus formed are slotted diagonally, as shown at letter F on Fig. 2. The slot in the bottom of the posts opposite to those shown on the drawings is turned in a direction opposite to the one shown, and thereby the two are adapted to the circle of any ordinary tub or other circular vessel on which they may be placed. I also construct a cross-bar (marked G) on Fig. 1, which extends from one upright post to the other, and is fastened thereto by two set-screws, (marked H.) On the inside of this cross-bar I attach two blocks which severally fit closely to the insides of the upright frame pieces or posts, and which are beveled on their inner edges, so as to correspond to the slots in the bottoms of the frame-pieces above described. This last-mentioned device enables me to attach my wringer to the rims of circular tubs of various thicknesses, and to hold it there securely without oscillation or movement of any kind whatever. This is effected by the said blocks and set-screws working in combination with the slots in the bottoms of the posts, as described. Thus, if the staves of the tub are thinner than the width of the slots, I turn the set-screws H, and thereby press the blocks firmly against the tub and clamp it closely between said blocks and the farther side of said slots.

My device for allowing the rollers to sepa-

rate without throwing the cog-wheels out of gear is shown partially on Fig. 1, but more particularly on Fig. 2, where letter I is a cog-wheel having cogs both on the outside and inside of its rim. Letter K is a small cog-wheel that works on the outside of cog-wheel I, and is attached to the gudgeon of the upper roller. L is a small cog-wheel attached to the gudgeon of the lower roller, and works in the cogs on the inside of the rim of cog-wheel I. On the end of the gudgeon of the lower roller, between the frame and cog-wheel L, I attach one end of a crank, (marked M.) The opposite end of this crank passes through the center of the large cog-wheel I and forms the journal upon which it rotates. I also construct an arm, (marked N,) the upper end of which passes around the gudgeon of the upper roller, and the lower end passes around that part of the crank M which serves as a journal for the large cog-wheel. Now, whenever it is desired to pass large garments through the rollers of such size as to separate them the arm N draws up the pinion of the crank, and with it the cog-wheel I. This device allows the rollers to separate, even to

the distance of several inches, without in the least disturbing or disarranging the action of the cog-wheel gearing above described.

My device for attaching the wringer to the tub possesses great advantages in this, namely: It clamps the tub, box, or sink the full length of the opposite standard in the slot and makes the bearing equal both at the top and bottom of the said slot. It is equally well adapted to a circular tub or barrel and a square box or sink, and it holds the wringer firmly and securely to either without injury thereto.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the cross-bar G and blocks thereon, with the screws H, slots F, and false standards B, constructed and operated substantially as described.

2. The cog-wheels I, K, and L, the crank M and arm N, constructed and operated substantially as set forth.

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Witnesses:

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