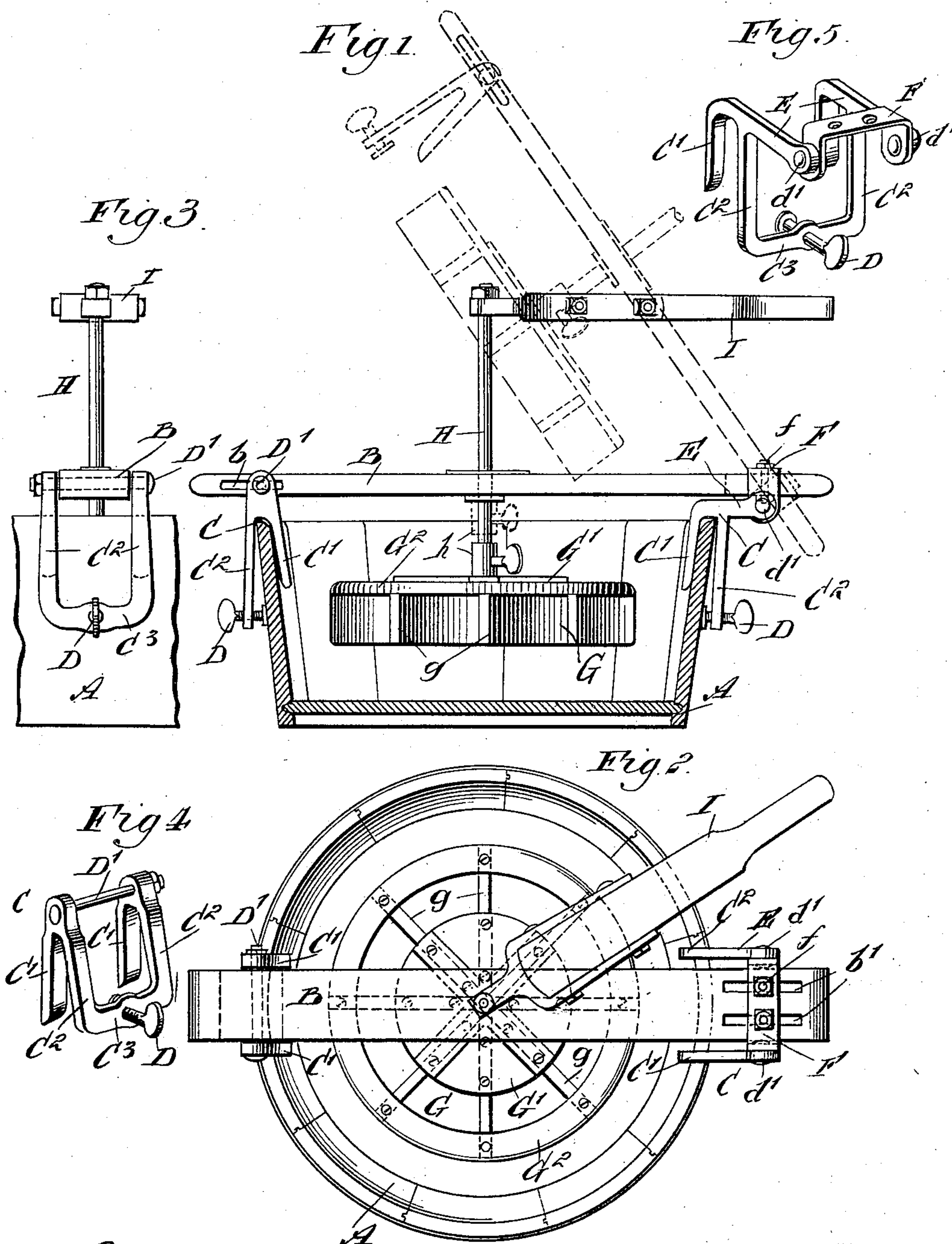


(No Model.)

S. HARTRIDGE.  
WASHING MACHINE.

No. 598,869.

Patented Feb. 8, 1898.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

SAMUEL HARTRIDGE, OF HUNTINGTON, NEW YORK.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 598,869, dated February 8, 1898.

Application filed March 13, 1897. Serial No. 627,350. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL HARTRIDGE, of Huntington, in the county of Suffolk and State of New York, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in washing-machines of that class which are adapted to be attached to an ordinary tub.

It consists, in part, of a bar which is clamped at its ends to opposite sides of the tub and at its center has a journal carrying a shaft, which at its upper end carries a crank and at its lower end a rubbing-wheel. The ends of the bar are pivoted to clamps of peculiar construction, which engage the sides of the tub.

The invention consists in the novel construction and combinations of parts, as will be hereinafter fully described, and then pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of my device, the position of the bar and rubbing-wheel when raised being shown by dotted lines. Fig. 2 is a top plan view of the device. Fig. 3 is an elevation from the outer side of one of the clamps. Fig. 4 is a perspective view of the clamp attached to the outer or swinging end of the bar; and Fig. 5 is a perspective view of the other clamp, or the one upon which the bar pivots.

My device is intended to be used in connection with a tub or any similar vessel and does not interfere with the attachment of a wringer or other device thereto. The bar B, which extends across the tub and forms the bearing for the shaft carrying the rubbing-wheel, is attached to the tub by clamps C. These clamps are somewhat different upon opposite ends. The one upon the swinging or free end of the bar consists of two V-shaped parts formed by the legs C' and C<sup>2</sup>. These are placed with the opening of the V down. The lower ends of the outer arms C<sup>2</sup> are connected by a horizontal bar C<sup>3</sup>; through the center of which is threaded a set-screw or clamping-bolt D. Through the upper ends of each half is fixed a pivot-pin D', which passes through a slot b in the end of the bar

B. This permits an automatic adjustment of the clamp to tubs of different size using the same bar B. The clamp upon the opposite end, or that to which the bar B is pivoted, is similar to the clamp above described in several respects. It has the same bars C' and C<sup>2</sup>, connected by the horizontal bar C<sup>3</sup> and the clamping-bolt D. In addition to this the bar E extends outward from the upper end of each of the V's or yokes and has pins d' passing through the same and upon which is pivoted a yoke F. This latter yoke consists of a plate or bar having its ends bent at right angles and provided with two holes through its central portion. Through these latter holes bolts f pass, engaging the bar B by passing through the slots b'. This clamp is thus adjustable upon the end of the bar B by moving the bolts f in their slots.

A shaft H is journaled in the center of the bar B and carries upon its lower end the wheel which is in contact with the clothes and which does the washing. This wheel G consists of a central disk or circular plate G' concentric with the shaft, an outer ring G<sup>2</sup>, which is separated from the disk G' by some little space, and of a series of radial slats or arms g, which are connected both to the disk G' and the ring G<sup>2</sup>. These slats or ribs g are comparatively narrow, but of some little depth. The wheel G is designed to rest immediately upon the clothes and to keep the same beneath the surface of the water. To secure this an adjustable collar h is placed about the shaft. After the clothes are in place the rubbing-wheel is forced down upon the surface of the clothes and the collar h moved up to engage the lower side of the bar B, as shown by dotted lines. This secures an even pressure upon the clothes and holds the rubbing-wheel down upon them. To the upper end of the shaft H is attached a handle I, by which the shaft is revolved. The clothes, being put in the tub, are covered with water and soaped or otherwise prepared for washing. The wheel G, resting upon them, is then turned back and forth. This results in rubbing and stirring the clothes, forcing the water through them, so that they are rapidly cleansed and without tearing or otherwise causing unnecessary wear.

When it is desired to fill or empty the tub



of clothes or to examine the clothes in the tub, the clamp upon the outer end of the bar B may be released and the whole device thrown up to the position shown in dotted lines in Fig. 1, or even farther, if desired. This leaves the tub entirely open, so that it may be easily emptied or filled. The connection of the clamps to the bar B by the slots in the manner shown pivots the clamps thereon, so that they may adjust themselves to any angle of the staves of the tub. It also secures an automatic adjustment of one of the clamps for tubs varying considerably in diameter. The other or pivotal clamp may be readily adjusted in position upon the bar B by loosening and tightening the nuts upon the bolts *f*. The clamps are secured upon the tub by tightening the set-screw or clamping-bolt D.

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

1. In a washing-machine, the combination with a bar adapted to extend across a tub, and a rubbing-wheel mounted in said bar, of clamps for securing the ends of the bar to the tub, each clamp being adjustably secured to the bar, and one of the clamps having a hinged connection with one end of the bar, substantially as described.

2. In a washing-machine, the combination with a bar adapted to extend across a tub,

and having a slot at one end and a rubbing-wheel mounted in said bar, of a clamp having a hinged member to which one end of the bar is adjustably secured, and a second clamp loosely held in the slot at the end of the said bar, substantially as described.

3. In a washing-machine, the combination with a bar adapted to extend across a tub and having its ends slotted, the slots being at right angles to each other, and a rubbing-wheel mounted in the center of the bar, of a clamp having a pivoted yoke, bolts securing the yoke in the slots at one end of the bar, and a second clamp having a fixed pivot passing through the slot at the other end of the said bar, substantially as herein shown and described.

4. In a washing-machine, the combination of a bar adapted to extend across a tub, a rubbing-wheel mounted in the center of the bar and provided with a handle at its upper end, an adjustable sleeve on the shaft of the wheel below the said bar, a clamp having a hinged member to which one end of the bar is adjustably secured, and a second clamp adjustable on the other end of said bar, substantially as herein shown and described.

SAMUEL HARTRIDGE.

Witnesses:

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