

No. 636,320.

Patented Nov. 7, 1899.

P. W. CASLER.
WASHING MACHINE.

(Application filed Oct. 26, 1898.)

(No Model.)

2 Sheets—Sheet 1.

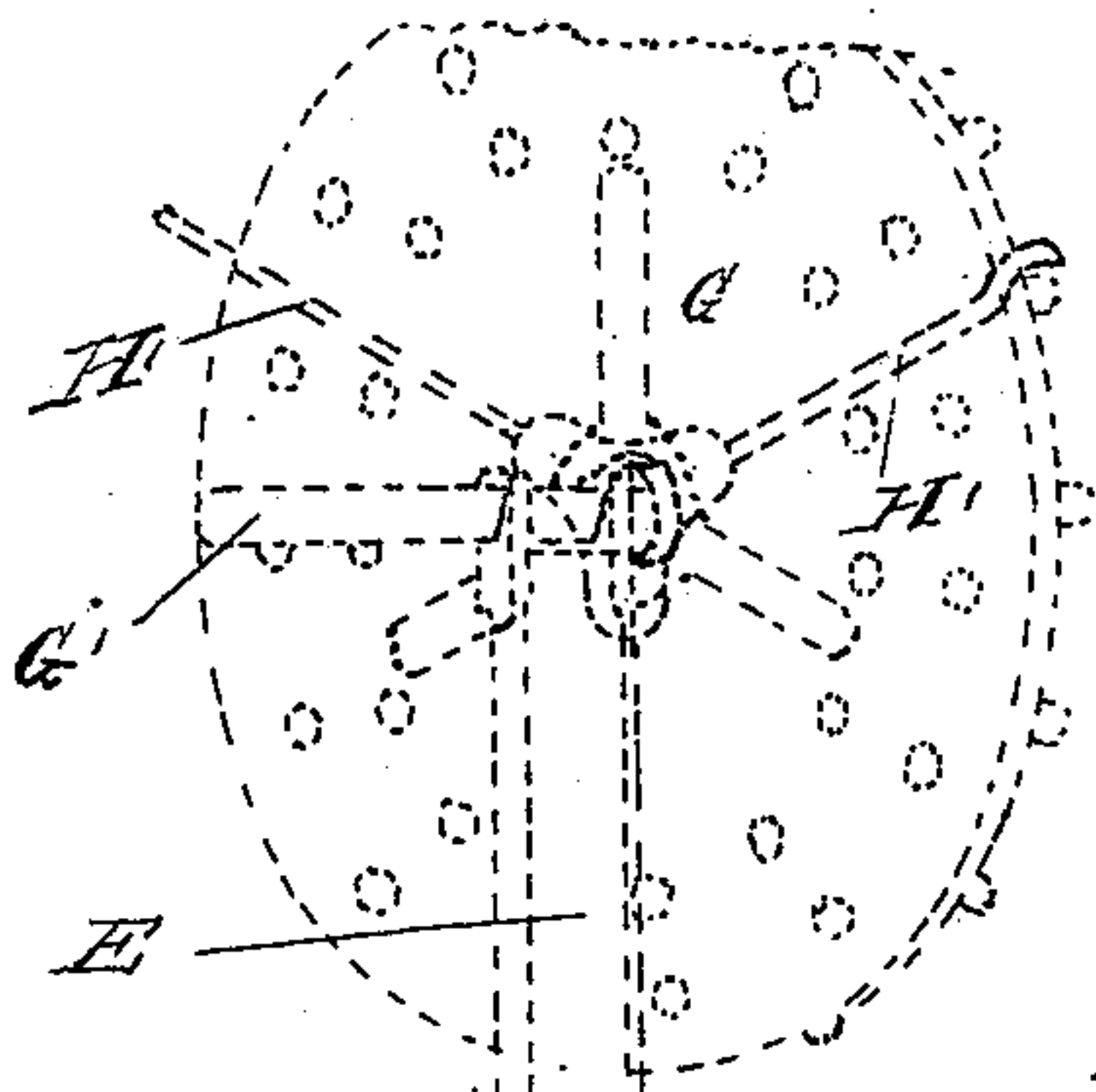


Fig. 1

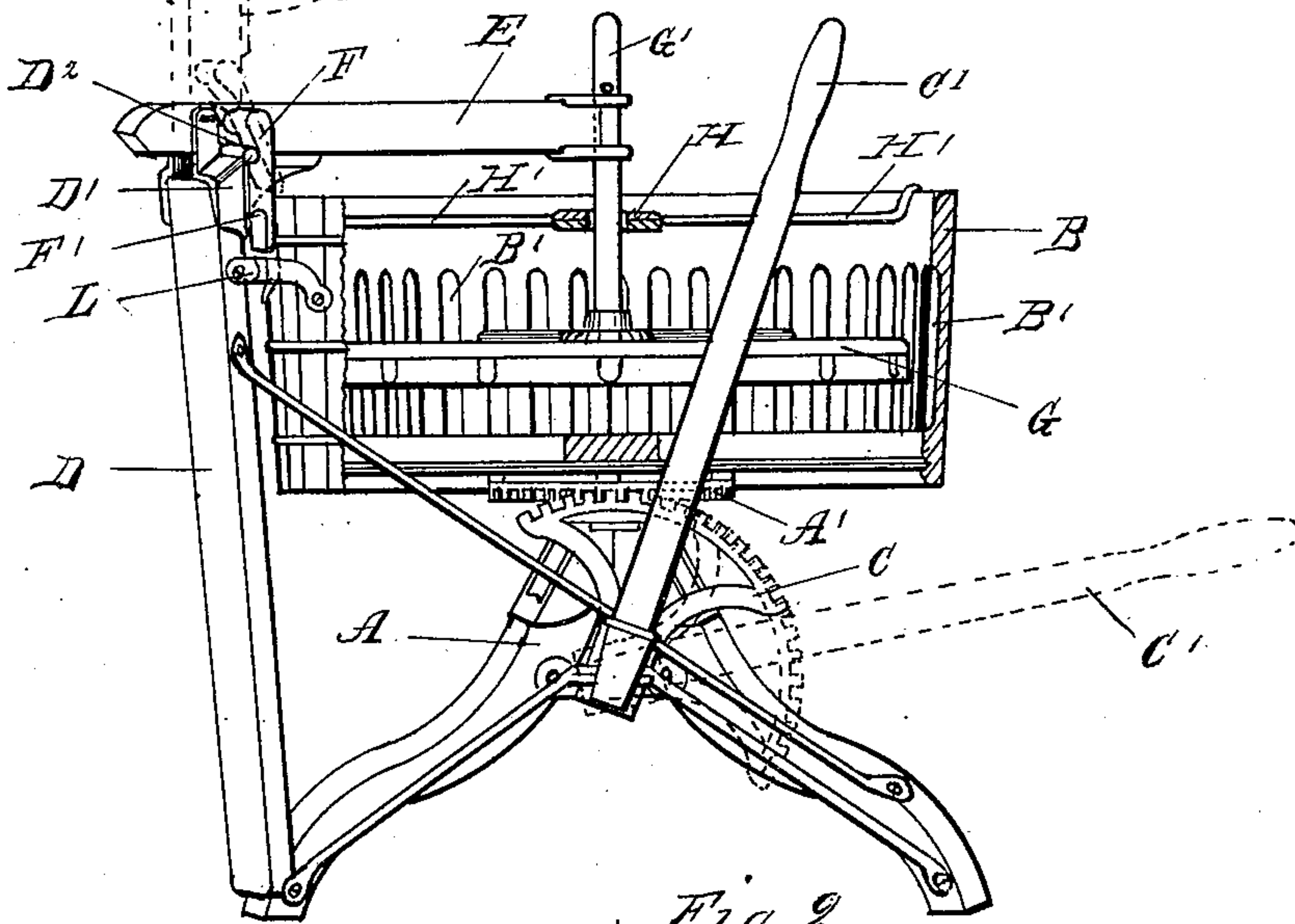


Fig. 2.

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No. 636,320

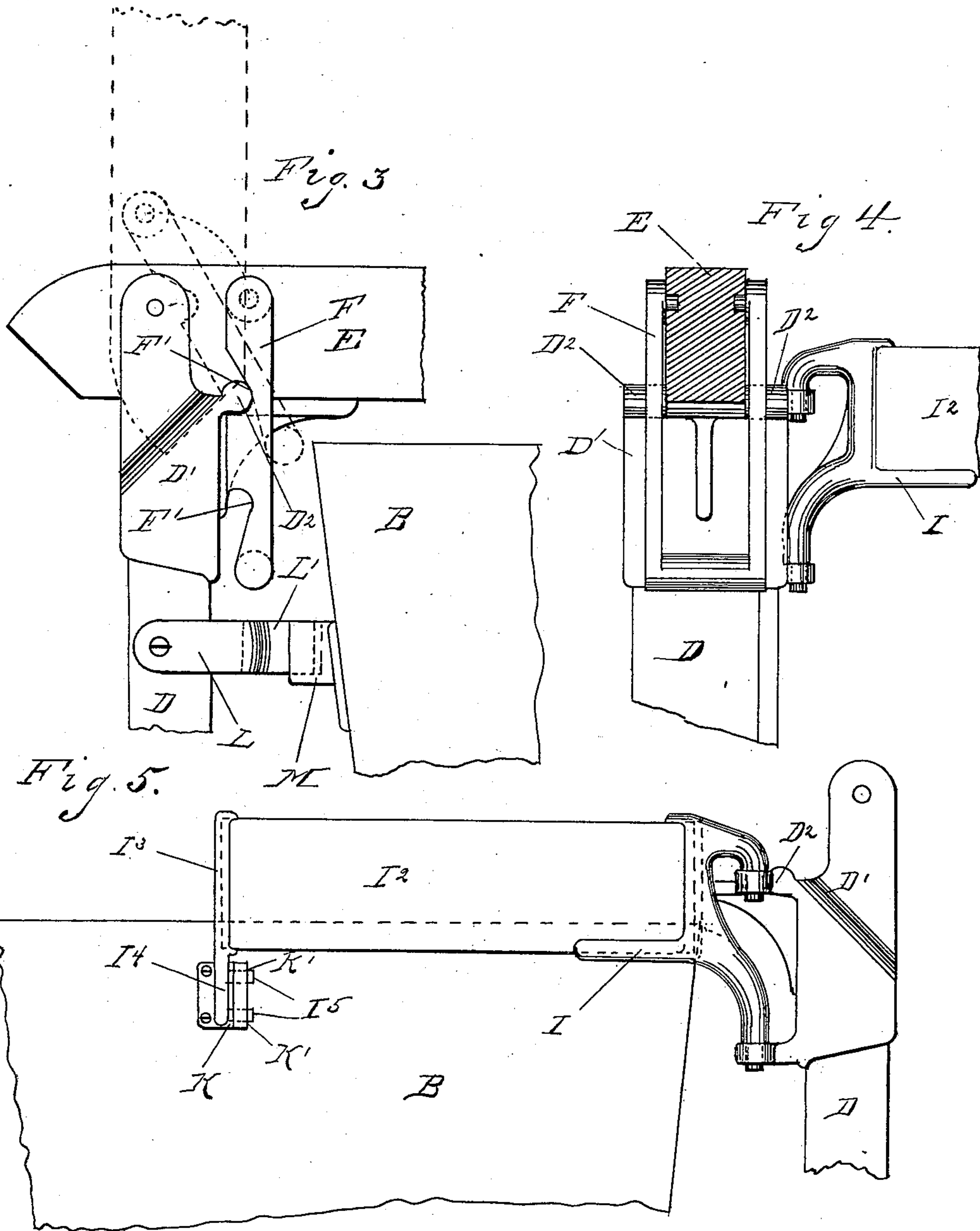
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INVENTOR

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UNITED STATES PATENT OFFICE.

PHILO WILLIAM CASLER, OF LITTLE FALLS, NEW YORK.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 636,320, dated November 7, 1899.

Application filed October 26, 1898. Serial No. 694,571. (No model.)

To all whom it may concern:

Be it known that I, PHILO WILLIAM CASLER, a citizen of the United States, residing at Little Falls, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

The present invention is in the nature of some specific improvements in the line of the invention shown and claimed in my application for a washing-machine, Serial No. 665,678, filed January 5, 1898.

The improvements consist, essentially, in a novel and useful device for guiding the follower and in certain other new and useful features, all of which will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which similar letters refer to similar parts throughout the several views, Figure 1 is a partly-sectional and partly-elevated view of the invention. Fig. 2 is a plan view of the same. Fig. 3 is a fragmental side view of the upper portion of the upright standard and the horizontal supporting-arm, showing the construction of the automatic locking device for the supporting-arm and also showing the lock whereby the tub is held in a stationary position. Fig. 4 is an end view of the locking device for the supporting-arm. Fig. 5 is a side elevation of the swinging bracket for holding the wringer.

A represents a supporting-frame, and B a tub revolubly mounted thereon. Mounted in horizontal bearings on the said frame is a segmental gear C, which normally engages an annular gear A', secured to the bottom of the tub. C' represents an operating-lever connected with the segmental gear and by which the machine is operated.

Secured at one side of the supporting-frame is an upright standard D, the upper end portion of which is provided with a bracket D', to which a horizontal supporting-arm E is pivotally connected. This supporting-arm is capable of being swung back in an upright position, as indicated by the dotted lines in Fig. 1 on the drawings.

F represents an automatic locking device comprising a fork-shaped casting pivotally

secured at its open end to the supporting-arm and provided on its longitudinal rear edges with two pairs of notches F', which are adapted to engage two projecting lugs D², located on the forward side of the bracket above referred to. The purpose of this locking device is to hold the supporting-arm in either a horizontal or upright position, the upper pair of notches engaging the lugs when the arm is in a horizontal position and the lower pair of notches engaging the lugs when the arm assumes a vertical position.

Slidably mounted in the forward end portion of the supporting-arm is an upright shaft G', carrying at its lower end a follower G, provided on its under side with rubbers of any preferred form.

H represents a guide-bearing surrounding the upright angular shaft G', secured to the follower. This guide-bearing is secured to the tub by means of three radial arms H' and is adapted to revolve with the tub for the purpose of centering the follower, and thus prevent any irregular motion of the same. The object of securing the guide-bearing to the tub by means of radial arms is to expose the interior of the tub and enable the operator of the machine to watch the operation of the washing. Particular attention is called to the action of this guide-bearing. When an unequal distribution of the clothes in the tub causes the follower to assume an inclined position, the follower gradually straightens itself out to a level position as the tub is caused to revolve, for the reason that the follower is connected to a triangular rod G', which passes through the round hole in the guide-bearing H. The pressure of the sides of the opening against the edges of the triangular rod G' has a constant tendency to cause the rod and its followers to assume a level position, and in thus assuming the level position at the same time to even the clothes upon the bottom of the tub.

I represents a wringer-bracket hinged at one side of the supporting-bracket above referred to. This bracket is preferably provided with a board I², adapted to receive a wringer. To the forward end of this board is secured a cap I³, having a downwardly-projecting finger I⁴, which is provided with two inwardly-directed studs I⁵. When the wringer

is to be used, these studs are adapted to engage two holes K' in an outwardly-projecting locking-plate K, secured to the outer side of the tub. The studs having once engaged the
 5 said locking-plate the board holding the wringer is firmly held in position by locking the tub to the upright standard by means of the locking device L. This device consists of a fork pivoted at its open end to the up-
 10 right standard and provided at its forward end with a stem L', which engages a pocket M, secured to the outer side of the tub.

In order to promote the efficiency of the machine, I provide the inner sides of the tub
 15 with a continuous annular row of corrugations B', which act as rubbers on the clothes, also permitting of a more thorough circulation of the water than it is possible to attain in a tub having smooth sides.

20 In operating the machine the tub is partly filled with water and the clothes are placed in the ordinary manner between the follower and the bottom of the tub, in which position they are agitated and rubbed as the tub is re-
 25 volved by the operating-lever.

By having a segmental gear in driving the machine the tub may be thrown out of gear by simply lowering the lever, as shown by the dotted lines in Fig. 1 on the drawings.
 30 The tub may then be revolved completely around in any direction, making every portion of the same easily accessible, a feature of great advantage to the operator in placing and removing the clothes.

35 I do not desire to limit myself to the particular construction of the parts herein shown and described, but hold myself at liberty to make such changes as would fairly come within the scope of my invention.

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

1. In a washing-machine, a supporting-frame, a tub mounted to revolve thereon, a
 45 mechanism for causing the tub to have a horizontal reciprocating movement upon the supporting-frame, a standard secured to one side

of the frame, the bracket D' secured to the upper end of the standard, the pivoted arm E connected to the bracket, the automatic
 50 locking device F pivotally connected to the arm, and provided on its rear edges with the notches F' which are adapted to engage the two projecting lugs D² formed as a part of the bracket, the parts being combined and ar-
 55 ranged to operate substantially as shown and described.

2. In a washing-machine, a supporting-frame, a tub revolubly mounted thereon, a
 60 vertically-adjustable but non-rotating follower for the tub, an angular upright shaft connected to the follower, and a guide-bearing connected to the top of the tub, so as to revolve therewith, and which has a circular opening therethrough, substantially as de-
 65 scribed.

3. In a washing-machine, a supporting-frame, a tub revolubly mounted thereon, and an upright standard secured at one side of the
 70 frame, combined with a bracket secured to the upper end portion of said standard and provided with lugs on the forward side thereof, a supporting-arm, and an automatic locking device pivotally secured at its upper end to the supporting-arm, and provided with
 75 suitable notches to engage said lugs, substantially as specified.

4. In a washing-machine, a supporting-standard, a bracket secured to the upper end and provided with projecting lugs on the for-
 80 ward side of the bracket, combined with the supporting-arm, and an automatic locking device which is pivoted to the arm and provided with a series of notches in its rear edge, and which locking device, as the supporting-arm
 85 is raised, adjusts its lower notches through the projections upon the bracket for the purpose of holding the arm in a raised position, substantially as shown.

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Witnesses:

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