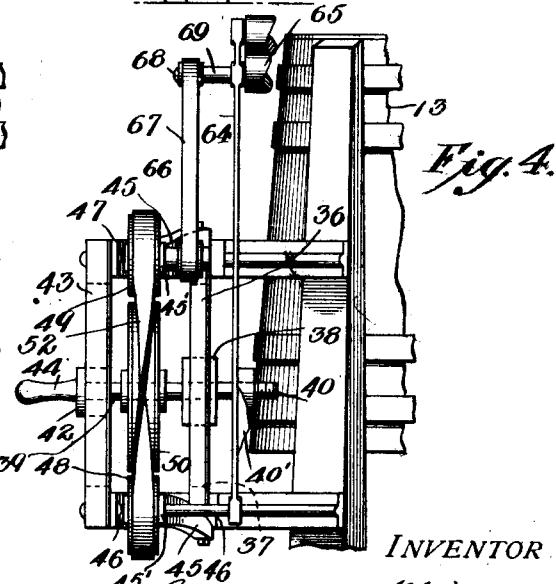
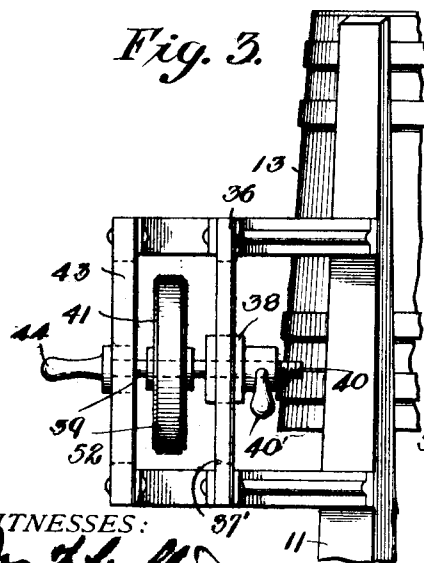
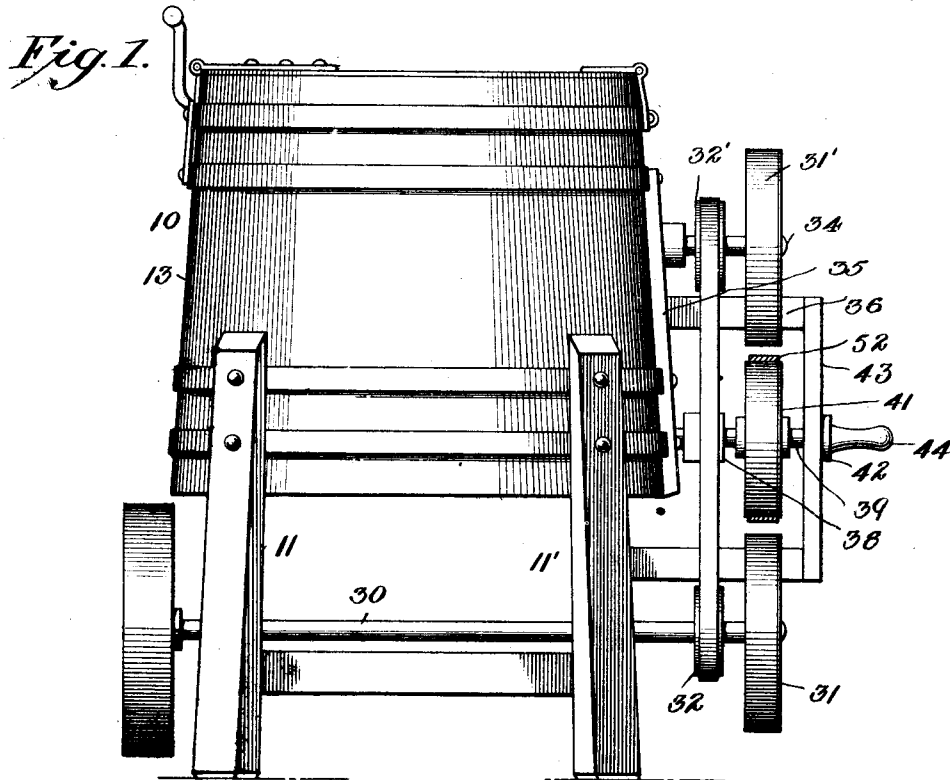


G. H. WILLEMS.
DRIVING MECHANISM AND SUPPORT THEREFOR.
APPLICATION FILED JULY 20, 1912.

1,066,068.

Patented July 1, 1913.

3 SHEETS-SHEET 1.



WITNESSES:

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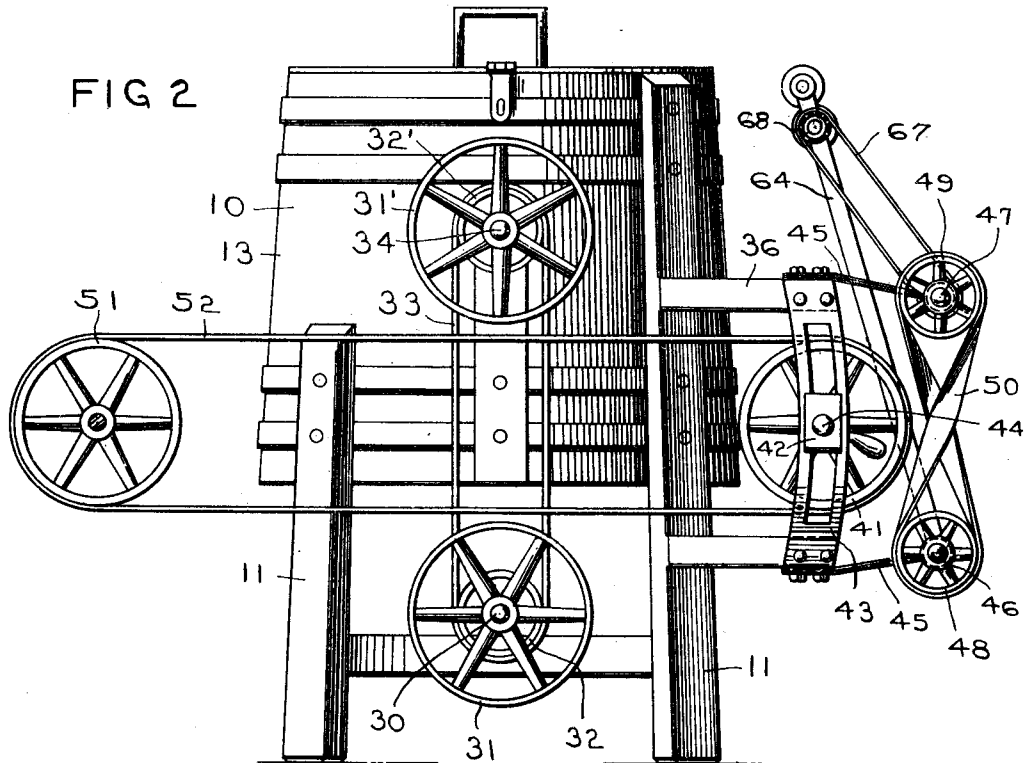
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

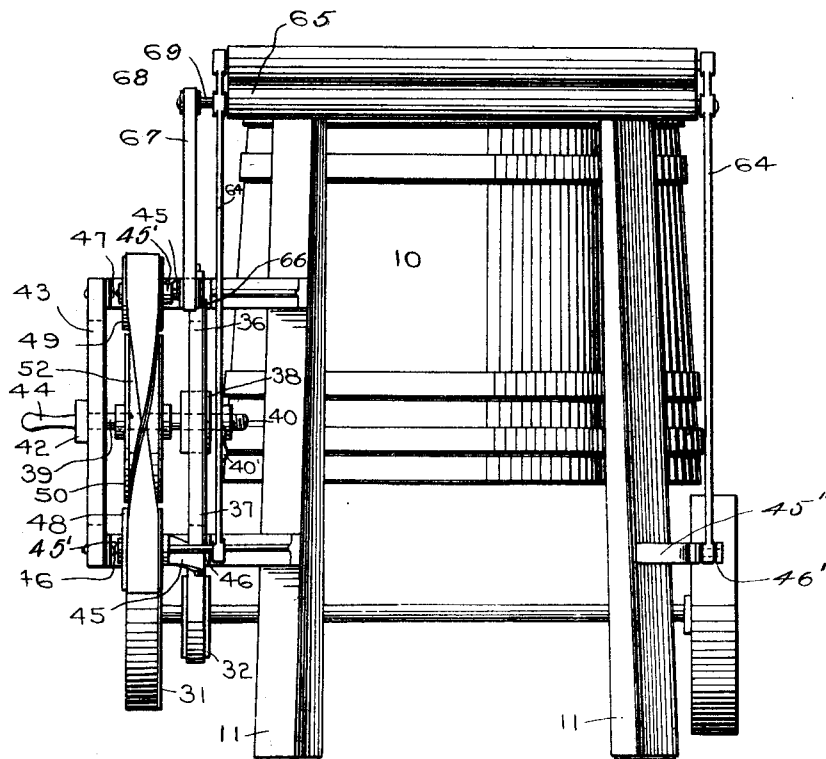


FIG. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE H. WILLEMS, OF ROANOKE, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO POWER WASHING MACHINE CO., OF PEORIA, ILLINOIS, A CORPORATION OF
ILLINOIS.

DRIVING MECHANISM AND SUPPORT THEREFOR.

1,066,068.

Specification of Letters Patent.

Patented July 1, 1913.

Original application filed April 27, 1911, Serial No. 623,657. Divided and this application filed July 20,
1912. Serial No. 710,581.

To all whom it may concern:

Be it known that I, GEORGE H. WILLEMS, a citizen of the United States, residing at Roanoke, in the county of Woodford and State of Illinois, have invented certain new and useful Improvements in Driving Mechanism and Supports Therefor, of which the following is a specification.

This invention relates to improvements in washing machines and particularly to that type wherein the washer is preferably driven by power and a wringer mechanism is mounted so as to be capable of being moved to various positions relative to said washing machine and power driven in any of such positions and reversed if necessary.

This is a division of the application filed by me in the United States Patent Office, on the 27th day of April, 1911, said application bearing Serial Number 623,657.

A principal object of this invention is the provision of a supporting means, or frame for the wringer mechanism which is pivoted at its lower end to the main frame of the device and adapted to swing to and from the washing machine so as to permit clothes to be wrung directly from the washing machine into a rinsing tub and then after the wringer is moved to a position at a distance from the washing machine to permit the clothes to be wrung directly from the rinsing tub to the basket or other receptacle to be taken away for drying, the wringer mechanism being capable of being driven by power in any position.

Additional objects and advantages will be apparent from the following description and from the drawings, in which,

Figure 1 is a side view from one side of the device, parts in section. Fig. 2 is a side view of the device showing the driving connections. Fig. 3 is a front elevation illustrating the idler support and shifting means, partly in section, the wringer being removed. Fig. 4 is a similar view showing the wringer connections and frame. Fig. 5 is an end view of the wringer end of the machine.

Referring to the drawing, there is shown a tub receptacle 10, supported on a suitable frame 11, and including the bottom 12 and the inwardly inclined sides 13, as shown. This receptacle, which is the washing machine proper, may be of any suitable construction and include interiorly arranged

washing elements, actuated in any suitable manner. Such structure is not shown or described, as the same forms no part of the invention claimed.

30 denotes a shaft suitably supported by the frame 11, carrying the friction pulley 31 and a pulley 32 connected by a belt 33 with a similar pulley 32' on the stub shaft 34 suitably bracketed near the top of a standard 35 of the frame, this shaft carrying also the friction pulley 31'. The pulleys are all splined to their respective shafts, these 31 and 31' being arranged to be unkeyed readily in any suitable way. The shaft 30 and associated parts just described, are included for the purpose of illustrating a reversible drive for the washing elements, not shown, and which may be connected up with same in any suitable manner.

Secured to a suitable part of the frame there is a bracket frame 36, including an arcuate guideway 37 including spaced bars between which there is slidably disposed a carriage block 38 suitably flanged to retain it upon the guideway. Carried non-revolubly in the block is the stub shaft 39 projected upon both sides of the guideway. A worm thread is formed upon one end 40, upon which is engaged the lock arm 40', a turn of which will compress the flanges of the block against the guideway and hold it against reciprocation. Oppositely the shaft carries the idler pulley 41, outwardly of which it is provided with the draft supporting shoe 42, bearing slidably upon the rail 43 running parallel with the guideway, whereby the tension of a belt upon the pulley 41 will not twist the shaft longitudinally in the guideway. A handle 44 is provided at this outer end of the shaft for cooperation with the lock arm 40 in the shifting shaft and pulley.

Extending from the upper and lower portions of said bracket frame are the brackets or arms 45, each being provided with the bearing sleeves or bearings 45'. The stub shaft 46 is carried in the bearings on the lower arm or bracket and the shaft 47 is revolutely supported in the bearings of the upper arm or bracket, the end of said shaft 47 being suitably supported or journaled, if necessary to a portion of the bracket frame 36. These shafts 46 and 47 support the operative connecting mechanism for driving

the wringer mechanism from the driving means. This mechanism takes the form of pulleys 48 and 49 mounted on said shafts which are mounted in alinement with the pulley 41. A belt 50 engages said pulleys 48 and 49, this belt being preferably crossed as shown.

In use, power from a suitable source should be applied to a pulley of approximately the same size and location with respect to the machine, as illustrated in Fig. 2 at 51. A suitable belt 52 is then engaged around this pulley and the pulley 41. It will be seen that with the latter pulley disposed at either limit of its movement in the guideway, the belt 52 will bear against either the pulley 31 or the pulley 31'. At the same time the movable pulley 41 bears against the belt 50 and pulleys 48 and 49, each producing rotation of the wringer shaft in a different direction.

As a preferred construction and manner of supporting the wringer mechanism, I provide a frame suitably pivoted to the main frame at its lower end and adapted to support and carry the wringer mechanism on its upper end. This frame is pivoted so that its upper end and the wringer mechanism thereon may be swung to and from the washing machine. Specifically this frame includes uprights, arms or standards 64 which are pivoted at their lower ends to the frame. One of said arms 64 is carried on an extension of said shaft 46, while the other of said arms is mounted on a stud shaft or spindle 46' which is mounted on the bifurcated end of bracket 45'' which is secured to and extends from the side of the frame opposite the brackets 45. The stud shafts 46 and 46' are necessarily in alinement. These arms 64 extend upwardly, terminating adjacent the top of the washer. On their upper end is mounted the wringer mechanism 65 which may be any form and construction. This wringer is driven from the belt 50 through the following connections. On the shaft 47 or an extension thereof, is mounted the pulley 66, over which runs the belt 67, the latter communicating to pulley 68 which is mounted on the end of the shaft 69 which is journaled in the arms or uprights 64 and drives the wringer 65.

It is to be noted that by providing the duplicate arms 64, I form a frame for supporting the wringer, which frame is pivoted to the main supporting frame of the device at its lower end so that it may be swung on this pivot to a position adjacent the washing machine and to a position removed therefrom. The operative connection will drive the wringer in either one of the positions. This arrangement is desirable in order to provide a device wherein the wringer mechanism may be positioned approximate the washing machine so as to readily wring the

clothes directly from the washing machine to a suitable rinsing or other receptacle and then to be moved to a more distant position so that the clothes may be wrung directly from the rinsing receptacle into a basket or other receptacle in which they may be taken away for the drying operation. The wringer may be reversed in either position by the movement of the pulley 41, or can be left idle by leaving pulley 41 in the position shown in Fig. 2.

What I claim is:—

1. In a machine of the character described, a main frame, a supplemental frame pivotally mounted thereon, an operating means mounted on said supplemental frame, said supplemental frame being adapted to be moved to different angles relative to a perpendicular line through its pivot to position said operating means at different positions relative to said main frame so as to adapt said operating means to operate on the same work during different stages of its treatment, a power driven element, and connections between said power driven element and said operating means, said connections including reversing means so arranged as to drive said operating means in its adjusted position in either direction, as desired.

2. In a machine of the character described, a main frame, a supplemental frame pivotally mounted thereon, an operating means mounted on said supplemental frame, said supplemental frame being adapted to be moved to positions on either side of a perpendicular line through its pivot to position said operating means at different positions relative to said main frame so as to adapt said operating means to operate on the same work during different stages of its treatment, a power driven element, and connections between said power driven element and said operating means, said connections including reversing means so arranged as to drive said operating means in its adjusted positions in either direction, as desired.

3. In a machine of the character described, a main frame, a supplemental frame pivotally mounted thereon, an operating means mounted on said supplemental frame, actuating means for said operating means, said actuating means including a power driven element and a plurality of rotary members and connections between said rotary members and said operating means, said connections being so arranged that when one of said rotary members is driven directly by said power driven element, said operating means will be driven in one direction and when the other of said rotary members is driven directly by said power driven element, said operating means will be driven in the opposite direction, said power driven element being normally out of operative relation with said rotary members

and being adapted to be placed in operative relation with either of said rotary members.

4. In a machine of the character described, a main frame, a supplemental frame mounted to oscillate on said main frame, a driving member coincident with the pivot of said supplemental frame, an operating means at the head of said supplemental frame, a short shaft located between said operating means and said driving member, a belt connection between said driving member and said short shaft, a belt connection between said short shaft and said operating means, and means adapted to have engagement with the belt connecting the driving member and said short shaft, for actuating said operating means.

5. In a machine of the character described, a main frame, a supplemental frame mounted to oscillate on said main frame, a driving member coincident with the pivot of said supplemental frame, an operating means at the head of said supplemental frame, a short shaft located between said operating means and said driving member, a

twisted belt connection between said driving member and said short shaft, a belt connection between said short shaft and said operating means, and power driven means movable into operative relation with said twisted belt, adjacent the short shaft and driving member, whereby a reverse operation may be imparted to said operating means.

6. In combination, a support, a member pivoted thereto and uprising from its pivot, a mechanism mounted on the outer portion of said member, a drive-wheel having its axis of rotation substantially coincident with the axis of the pivot of the member, means to operate said mechanism from said drive-wheel, and means adapted for reversing the direction of rotation of said mechanism and for interrupting said rotation.

In testimony whereof I affix my signature, in presence of two witnesses.

GEORGE H. WILLEMS.

Witnesses:

CHAS. N. LA PORTE,
SILAS H. ALTFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."