

No. 877,503.

PATENTED JAN. 28, 1908.

J. M. HATFIELD & O. BASS.

WASHING MACHINE.

APPLICATION FILED JUNE 23, 1906.

2 SHEETS—SHEET 1.

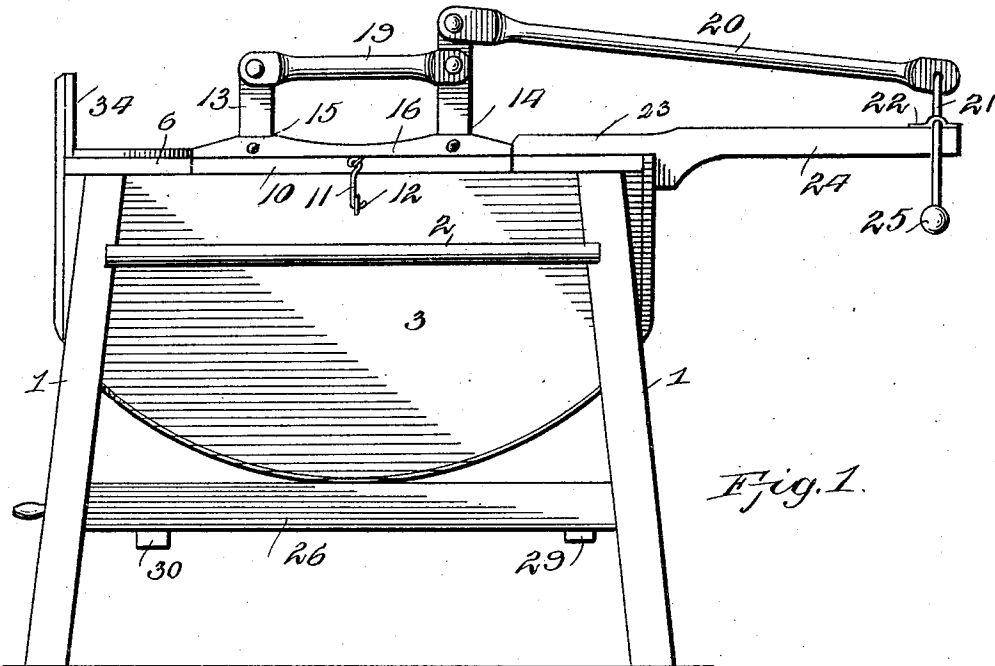


Fig. 1.

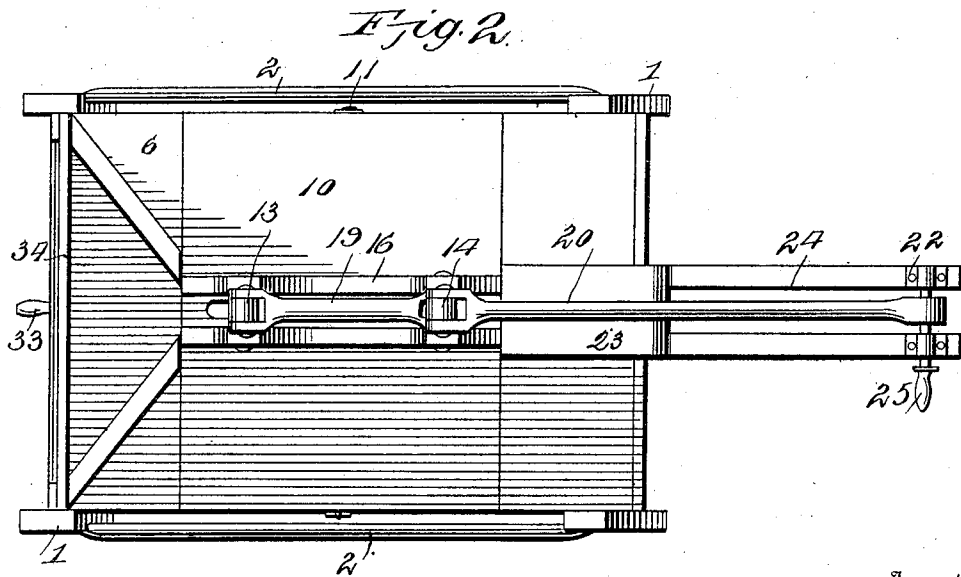


Fig. 2.

Witnesses  
Frank Hough

C. C. Hines.

Inventors  
J. M. Hatfield  
Omer Bass

By

Victor J. Evans.

Attorney

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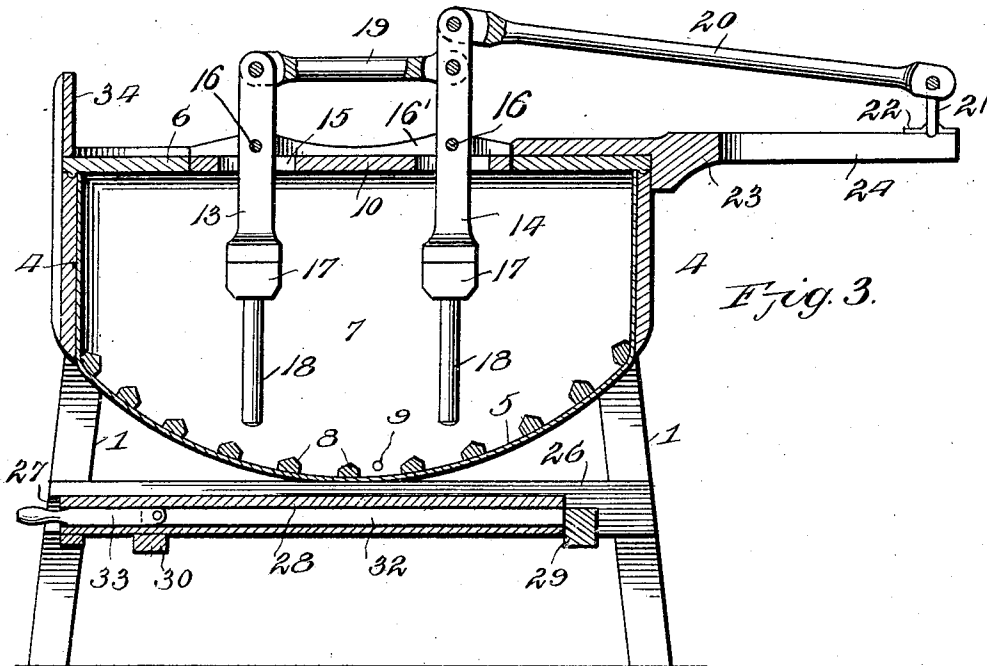


Fig. 3.

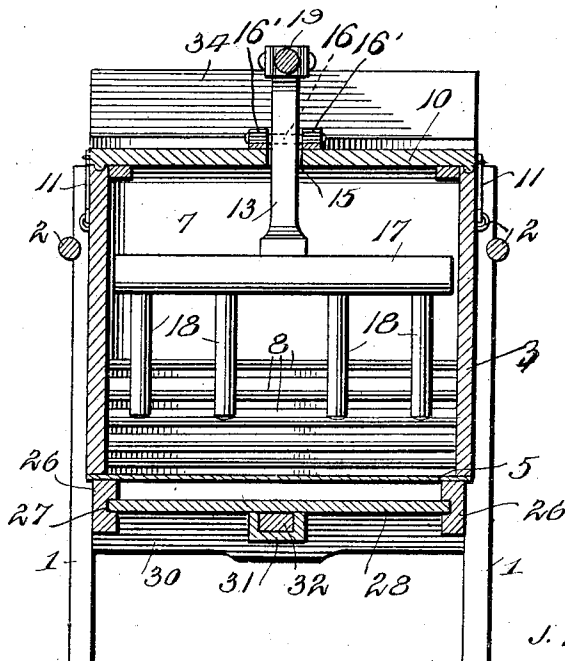


Fig. 4.

Inventors  
J. M. Hatfield  
Omer Bass.

Witnesses  
Frank Hough

C. C. Hines.

By

Victor J. Evans.  
Attorney

# UNITED STATES PATENT OFFICE.

JOHN M. HATFIELD AND OMER BASS, OF YARROW, MISSOURI, ASSIGNORS OF ONE-THIRD TO SAID HATFIELD, ONE-THIRD TO CHARLES ELSEA, OF CONNELLSVILLE, MISSOURI, AND ONE-THIRD TO JAMES D. HATFIELD, OF YARROW, MISSOURI.

## WASHING-MACHINE.

No. 877,503.

Specification of Letters Patent.

Patented Jan. 28, 1908.

Application filed June 23, 1906. Serial No. 323,103.

To all whom it may concern:

Be it known that we, JOHN M. HATFIELD and OMER BASS, citizens of the United States, residing at Yarrow, in the county of Adair and State of Missouri, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

This invention relates to improvements in washing machines.

The object of the invention is to provide a simple construction of machine which will thoroughly wash the clothes without injury to those made of delicate fabrics and which may be easily operated.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a side elevation of a washing machine embodying our invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal section of the machine. Fig. 4 is a vertical cross section thereof.

The frame of the machine comprises end pairs of supporting standards 1, the standards of each pair on opposite sides of the machine being connected by a longitudinal brace 2, the braces being properly formed to serve as handles to enable the machine to be readily lifted and transported from place to place.

On the frame is supported the body of the machine, embodying depending sides and end pieces 3 and 4, a bottom 5 and a top 6. The sides 3, ends 4 and top 6 are preferably formed of wood and the bottom 5 of metal, the latter being secured at its side edges to the side walls 3 and at its ends to end walls 4. These parts cooperate to form a washing chamber or suds compartment 7. The bottom wall 5 is longitudinally curved, as shown, and is provided with transverse ribs or projections 8 forming a rubbing surface. A suitably closed outlet 9 is provided in one of the side walls of this compartment to permit of the discharge of the suds water after the operation of washing the clothes is completed.

The top 6 is provided with an opening for the insertion and removal of the clothes, which opening is adapted to be closed by a

lid or cover 10. This lid or cover is bodily removable and is provided at each side with a hook 11 to engage a staple 12 on the body of the machine, whereby the cover is fastened in closed position. Any other suitable type of fastening may be employed for this purpose.

Carried by the cover are levers 13 and 14 which project upwardly through openings 15 therein. These levers are fulcrumed to pivot pins 15 fitting in openings in a pair of spaced longitudinal ribs or cleats 16 secured to the upper surface of the cover, on which the levers are mounted to swing longitudinally within the washing chamber 7. The lower end of each lever carries an agitator comprising a transverse head 17 from which depends a series of parallel fingers or projections 18. In the operation of the machine as the levers swing to and fro the fingers 18 engage the clothes and move them back and forth within the chamber 7 and in contact with the rubbing surface 8, the clothes being constantly turned over so as to present new surfaces to the action of the rubbers and suds water. The construction and arrangement of the fingers is such that the clothes will be prevented from hanging thereto and so that the most delicate fabrics may be washed without injury.

The upper ends of the levers 13 and 14 are connected by a link 19, and to the upper end of the lever 14 is also connected a rod 20. The rod 20 is pivotally attached to the lever 14 and to the crank portion of an operating crank shaft 21 journaled in bearings 22 upon the outer end of a bearing arm 23 extending outwardly from the adjacent end of the machine. The arm 23 is longitudinally slotted or bifurcated, as indicated at 24, to permit the outer end of the rod 20 to have freedom of movement therein during the operation of said rod by the crank shaft. The crank shaft is provided with an operating handle 25, whereby it may be rotated to impart a reciprocatory motion to the rod 20. The reciprocatory action of this rod causes motion to be transferred to the levers 13 and 14 to swing the same on their fulcrums, to carry the body of clothes back and forth in the washing compartment 7, as will be readily understood.

Extending longitudinally between the legs 1 at each side of the machine below the wash-

ing compartment is a brace bar 26, the two  
 brace bars being provided with longitudinal  
 guideways 27 in which is slidably fitted a  
 shelf 28. The inner ends of the groove form  
 5 stops to limit the inward movement of said  
 shelf, and the latter is provided at its rear  
 end with a cross bar 29 adapted to engage a  
 cross piece 30 attached to the two bars to  
 limit the outward movement of the shelf.  
 10 The shelf is provided on its underside with a  
 longitudinal guideway 31 in which is slidably  
 fitted a bar 32 provided at its outer end with  
 a pivoted combined handle and supporting  
 leg 33. The shelf 28 may be drawn outward  
 15 beyond the body of the machine to support  
 a tub containing rinsing or bluing water, and  
 when so desired the bar 32 may be drawn out-  
 ward to the desired extent and the part 33  
 turned down to form a supporting leg for the  
 20 outer end of the shelf. After use, the bar 32  
 and leg 33 may be moved back into the  
 guideway and the shelf slid back to normal  
 position, in which it will be out of the way  
 of the operator.

25 The end wall 4 located at the side on which  
 the shelf is adapted to be drawn out is pro-  
 vided with an upwardly extending board or  
 bracket 34 adapted to support a wringer,  
 which may thus be so arranged that the  
 30 water wrung from the clothes will flow down  
 into the tub supported upon the drawn out  
 shelf.

From the foregoing description, taken in  
 connection with the accompanying draw-  
 35 ings, the construction and mode of operation  
 of our improved washing apparatus will be  
 readily understood, and it will be seen that  
 it provides a simple and inexpensive con-

struction of machine of this character which  
 is efficient in action and may be easily and 40  
 conveniently operated.

Having thus described the invention, what  
 is claimed as new, is:—

A washing machine comprising a support-  
 ing frame with a washing chamber mounted 45  
 thereon provided with a curved bottom, ribs  
 on said bottom, an opening in the top of said  
 chamber having a cover for closing the same  
 which is provided with spaced apart cleats  
 on its upper surface, levers mounted in open- 50  
 ings of the cover and arranged at suitable  
 distances apart and pivoted to said cleats  
 and projecting above the cover and into the  
 chamber, said levers being provided on their  
 lower ends with transverse heads having a 55  
 plurality of fingers depending therefrom, a  
 link pivoted to the upper ends of the levers,  
 a rod pivoted to the upper end of one of said  
 levers and extending rearwardly beyond the  
 chamber, a right angular arm secured to one 60  
 end of the chamber and to the top of the  
 same and having a bifurcated end, a crank  
 shaft pivoted to bearings on said bifurcated  
 end, said crank arm being pivoted to the  
 outer end of said rod and said rod serving to 65  
 operate between the bifurcated end of the  
 arm to permit of a swinging movement of  
 said levers, substantially as specified.

In testimony whereof, we affix our signa-  
 tures in presence of witnesses.

JOHN M. HATFIELD.  
 OMER BASS.

Witnesses:

RUSSELL SIMLER,  
 SUSIE SIMLER.