J. E. HODSON.

WASHING MACHINE.

APPLICATION FILED DEC. 15, 1910.

1,041,793.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 1.

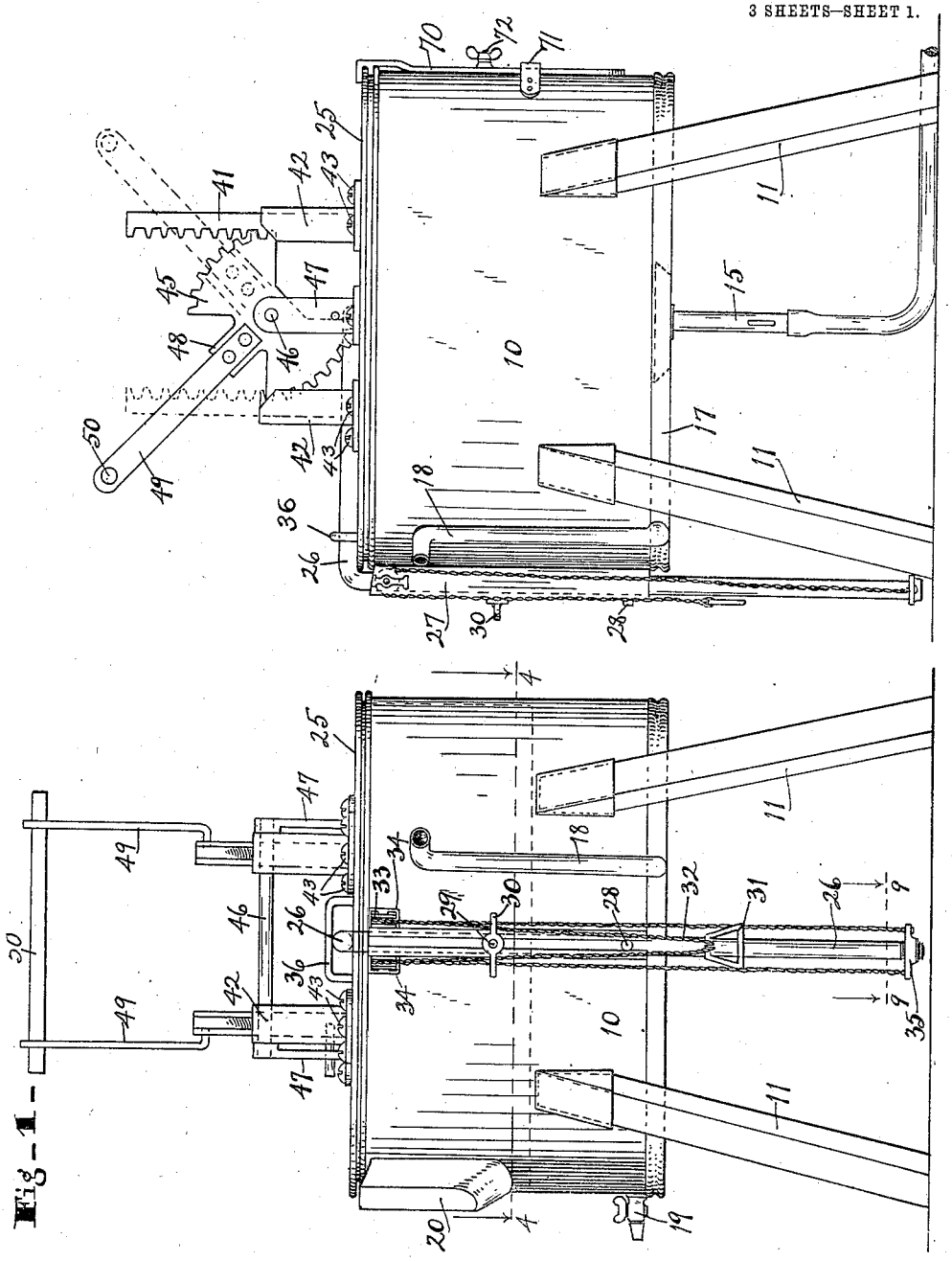

Fig. 1.

WITNESSES:

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Fig. 4.

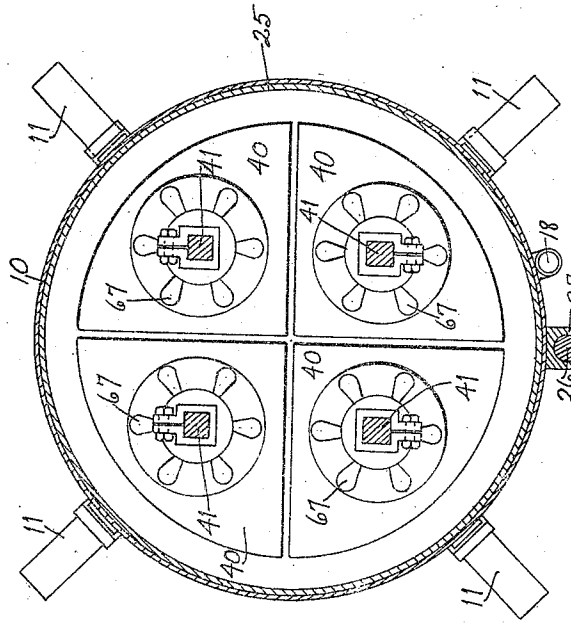
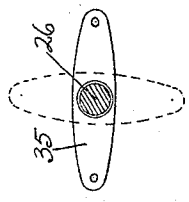


Fig. 9.



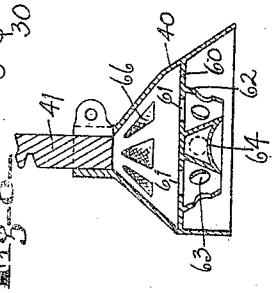


Fig. 3.

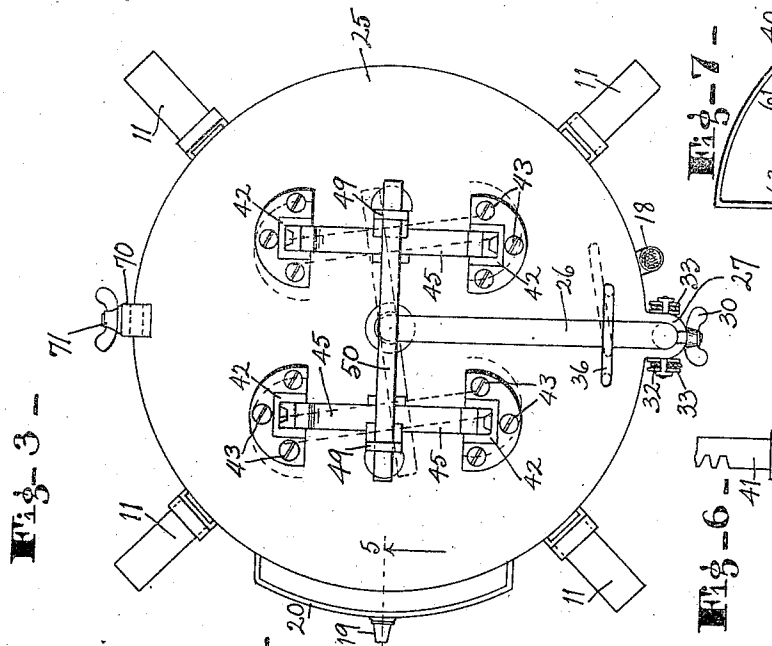


Fig. 7.

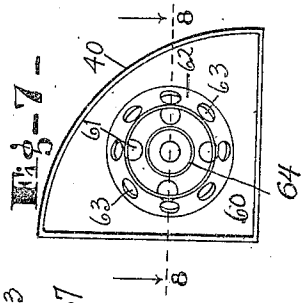


Fig. 6.

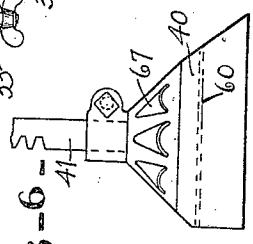
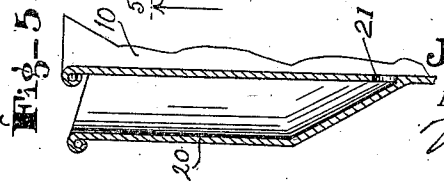


Fig. 5.



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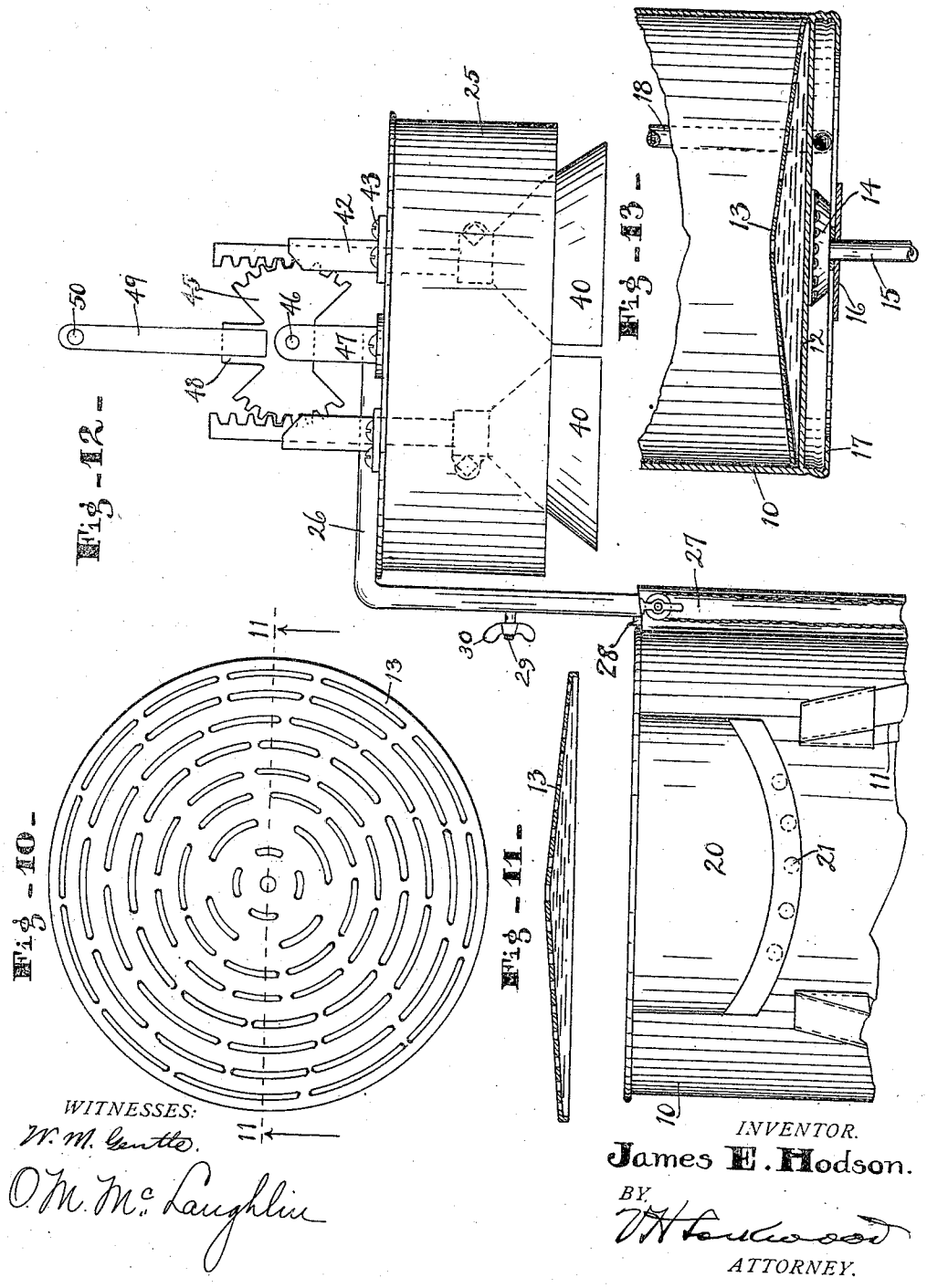

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UNITED STATES PATENT OFFICE.

JAMES E. HODSON, OF INDIANAPOLIS, INDIANA.

WASHING-MACHINE.

1,041,793. Specification of Letters Patent. Patented Oct. 22, 1912.

Application filed December 15, 1910. Serial No. 597,442.

To all whom it may concern:

Be it known that I, JAMES E. HODSON, of Indianapolis, county of Marion, and State of Indiana, have invented a certain useful Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of this invention is to provide an improved construction of a washing machine of the pneumatic type.

The features of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a front elevation of the washing machine. Fig. 2 is an elevation of the right hand side thereof. Fig. 3 is a plan view thereof. Fig. 4 is a section on the line 4—4 of Fig. 1. Fig. 5 is a vertical section on the line 5—5 of Fig. 3. Fig. 6 is a side elevation of a pounder and the lower part of a rack bar which is secured thereto, parts thereof being broken away. Fig. 7 is a bottom view of a pounder. Fig. 8 is a vertical section on the line 8—8 of Fig. 7. Fig. 9 is a section on the line 9—9 of Fig. 1. Fig. 10 is a plan view of a perforated false bottom. Fig. 11 is a section therethrough. Fig. 12 is a side elevation of the upper part of the device with the pounders and associated parts elevated out of the tub or tank and turned to one side out of the way. Fig. 13 is a vertical transverse section through the lower part of the tub or tank.

In detail a tank or tub 10 is supported by removable legs 11. The tank has a bottom 12 upon which a perforated false bottom 13 is removably located to keep the clothes out of contact with the bottom 12 when it is heated by a burner 14 mounted below the bottom 12 and on the upper end of a gas pipe 15. The gas pipe is held in place by a cross bar 16 that is secured to an annular flange 17 of the tank or tub 10, see Fig. 13. 18 is a pipe in the nature of a flue leading from the region near the burner below the tank or tub 10. 19 is a drain spout on the tub or tank and a drain attachment 20 is provided on the side of the tank where a wringer is adapted to be secured, the dripping therefrom draining back into the tank by holes 21, shown by dotted lines in Fig. 12. The tank or tub is cylindrical and a casing 25 telescopes into the tank and has a wall which extends down about half way to the bottom thereof and which is mounted on a crank rod 26, the vertical portion of which rod is slidable in a slot guide 27 secured to the tank. A pin 28 extends from the rod in said guide through the slot therein for supporting the rod in its elevated position from the top of the guide. There is a pin 29 projecting through the slot of the guide, and a nut 30 on said pin is used to clamp the rod with the guide so as to hold the rod at any desired elevation. The purpose of this is to enable the casing 25 and the washing mechanism associated therewith to be elevated and swung around to one side without being entirely separated from the tank. The elevation of these parts is effected by a handle 31 on a double cable 32 that extends from pulleys 33 in brackets 34 at the side of the guide near its upper end and down to a nut 35 secured to the lower end of the rod 26. A stop bar 36 is secured on the top of the casing 25 and over the rod 26 for limiting the oscillation of the casing relative to the rod.

There are four pounders 40 provided, each quadrant shaped and large enough, so that the four pounders substantially cover the horizontal area of the tank or tub. Each pounder is clamped to the lower end of a rack bar 41 that extends up through a vertical guide 42 secured to the top of the casing 25 by screws 43. These rack bars are actuated by segmental gears 45 secured to a rock shaft 46 mounted in bearings 47 on the top of the casing 25. At each end of said shaft 46 two oppositely located segmental gears integral with each other are shown and there is also an upper extension 48 to which an arm 49 is secured and a handle bar 50 is fastened in the outer end of each of said arms 49. The result is that there are two pairs of segmental gears, one at each side of the machine, and each pair of gears operates two pounders in opposite directions, one going up while one goes down. These parts may be so arranged with relation to each other that the diagonally opposite pounders will move in the same direction at the same time.

Referring to the construction of each pounder, as shown in Figs. 6, 7 and 8, the pounders 40 flare downwardly and have an elevated bottom 60 about an inch above the bottom, as indicated by dotted lines in Fig. 6 and as shown in Fig. 8. Through the bottom 60 there are some holes 61 and sur-

rounding the holes there is a downwardly extending flange 62 that tapers inwardly and has holes 63 in its wall. Between the holes 61 there is a downwardly extending cup 64. The parts 62 and 64 extend almost to the bottom of the pounder. The upper tapering portion of the pounder has some openings 66 which are covered by rounded tapering plates 67, shown in Fig. 6, which are closed excepting at their lower ends. This particular construction of the pounder is for the purpose of enabling the water to pass up rapidly through the pounder when it goes down on the clothes and also to prevent the clothes from closing the openings in the bottom of the pounder so as to prevent the water passing up therethrough, and to do this without in the least diminishing the suction effect of the pounders. The insertible top 25 is held in position in the tank 10, not only by the means heretofore described, but also by a spring catch bar 70 which engages said top 25 and extends loosely through a bracket 71 secured to the side of the tank 10 and is vertically slotted and clamped by a clamp 72 which extends through said slot. This bar 70 is situated opposite the guide 27.

I claim as my invention:

1. A washing machine including a circular tank open at the top, a circular casing of slightly less diameter than the tank and open at the bottom and closed at the top and insertible in said tank, means mounted in connection with said tank so as to be vertically adjustable for supporting said casing in the tank and to which the casing is connected so that the casing may be vertically adjusted and agitating apparatus mounted in connection with said casing.

2. A washing machine including a circular tank open at the top, a circular casing of slightly less diameter than the tank open at the bottom and closed at the top and insertible in said tank, a bent rod mounted in connection with the tank so as to be vertically adjustable for supporting said casing in the tank and with a horizontal portion projecting over the top of the casing and with which rod the casing is centrally connected so as to be oscillatory, means secured on top of the casing and overlying said rod for limiting the oscillatory movement of the casing with reference to said rod, and agitating apparatus mounted in connection with said tank.

3. A washing machine including a tank open at the top, a casing of slightly less diameter than the tank and insertible in the tank and open at the bottom and closed at the top, agitating apparatus mounted in connection with said casing, a bent rod having horizontal and vertical portions and with the horizontal portion extending over and connected with said casing, a vertical guide secured to the tank in which the vertical portion of said rod is mounted, means for clamping said rod in said guide, and a pin in said rod adapted to rest upon the top of the guide and support the rod and agitating apparatus and on a higher level than the tank.

4. A washing machine including a tank, an agitating apparatus adapted to be inserted in said tank, a bent rod having a horizontal portion secured to said agitating apparatus, a vertical guide for the vertical portion of said rod secured to the tank, means for clamping said rod at the desired elevation, pulleys at the upper end of said guide, cables secured to the lower end of said rod and passing over said pulleys, and a handle secured to said cables, whereby said agitating apparatus can be elevated and swung to one side.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

JAMES E. HODSON.

Witnesses:
G. H. BOINK,
J. H. WELLS.