C. W. FETHEROLF.

DISH WASHER.

APPLICATION FILED NOV. 25, 1907.

902,064. Patented Oct. 27, 1908.

Fig. 1.

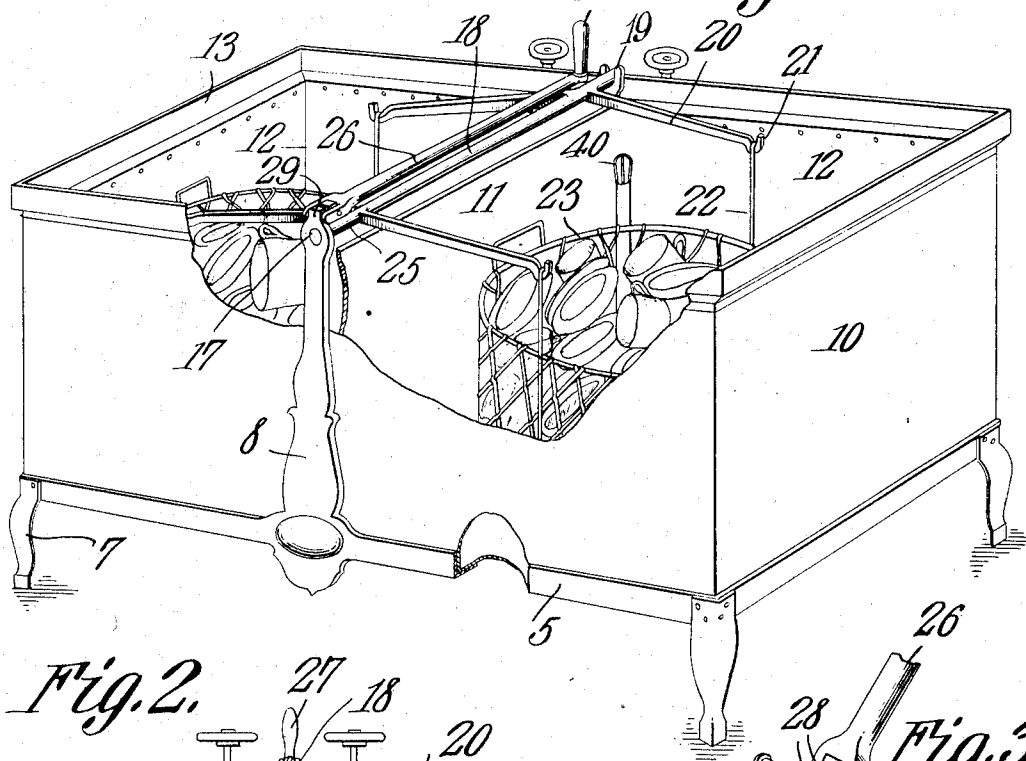


Fig. 2.

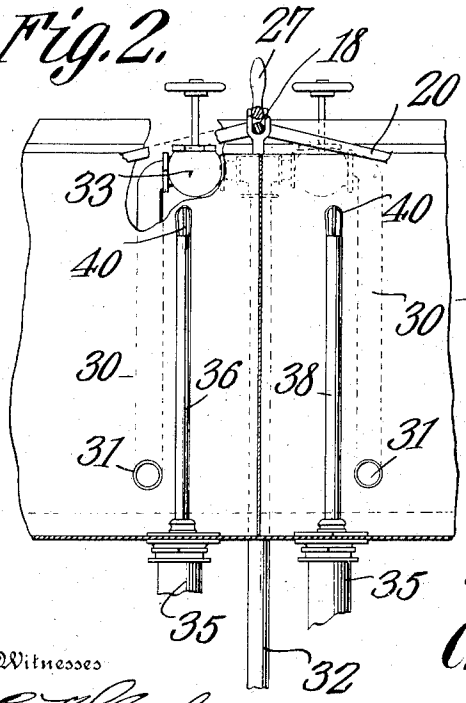


Fig. 3.

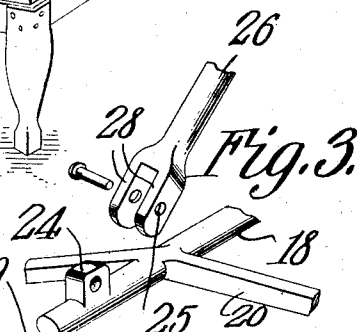


Fig. 5.

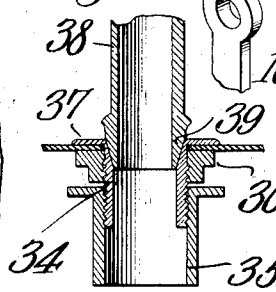
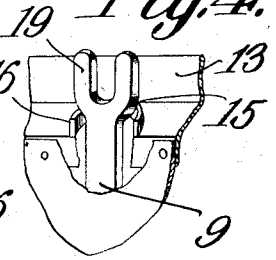


Fig. 4.



Witnesses

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DISH-WASHER.

No. 902,064. Specification of Letters Patent. Patented Oct. 27, 1908.

Application filed November 25, 1907. Serial No. 403,784.

To all whom it may concern:

Be it known that I, CHARLES W. FETHEROLF, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented a new and useful Dish-Washer, of which the following is a specification.

This invention relates to dish washers and has for its object to provide a strong, durable and thoroughly efficient device of this character particularly designed for use in hotels, boarding houses, restaurants and similar places and by means of which several pans or trays of dishes may be thoroughly washed at each operation of the machine.

A further object of the invention is to provide a dish washer including a liquid containing tank having a rock shaft journaled therein and provided with oppositely disposed arms for supporting the tray or trays of dishes to be washed, said trays being alternately raised and lowered within the liquid containing receptacle when the rock shaft is operated.

A further object is to provide an operating lever having one end thereof pivotally connected with the rock shaft and provided with spaced ears or lugs adapted to engage the supporting frame when the handle is moved to inoperative position thereby to lock the shaft against rocking movement.

A further object is to provide improved means for supplying water to the liquid containing tank, and means for discharging the same after each washing operation.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of a dish washing apparatus constructed in accordance with my invention. Fig. 2 is a detail vertical sectional view of the same. Fig. 3 is a perspective view of one end of the rock shaft showing the manner of connecting the operating lever therewith. Fig. 4 is a similar view showing the opening in the reinforcing rim for the reception of the frame standard. Fig. 5 is a vertical sectional view of the waste pipe and its associated parts.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved dish washer forming the subject matter of the present invention includes a substantially rectangular supporting frame 5 preferably formed of angle iron, as shown, and provided with depending legs or feet 7 and oppositely disposed uprights or standards 8 and 9. Resting on the supporting frame and interposed between the uprights or standards 8 and 9 is a tank or receptacle 10 having a transverse partition 11 defining independent liquid containing compartments 12. The upper edge of the tank 10 is provided with a marginal reinforcing rim 13 which also serves to deflect the water downwardly within the liquid receiving compartments and thus prevent the water from splashing over the sides of the tank when the machine is in operation. The reinforcing rim 13 is provided with oppositely disposed openings 15 for the reception of the adjacent uprights or standards 8 and 9, the metal constituting the rim being bent upwardly around said openings to form vertical reinforcing flanges 16. The upper or free end of the standard 8 is provided with a bearing 17 in which is journaled one end of a rock shaft 18 the opposite end of which is journaled in the bifurcated end 19 of the upright or standard 9. The rock shaft 18 is preferably disposed above and in vertical alinement with the transverse partition 11 and extending laterally from the rock shaft are oppositely disposed arms 20 provided with terminal hooks 21 which engage the adjacent hangers 22 of the dish receiving vessels 23 for supporting said vessels within the adjacent liquid receiving compartments of the tank. One end of the rock shaft 18 is provided with a vertically disposed boss 24, on which is pivotally mounted at 25 an operating lever 26, the latter being provided with a terminal handle 27 preferably disposed at right angles to the longitudinal axis of the lever 26, as shown.

The pivoted end of the operating lever 18 is bifurcated to form spaced ears 28 which extend beyond the pivot point 25 for engagement with the terminal lug 29 of the upright or standard 8 when the operating lever is swung downwardly to inoperative position parallel with the rock shaft thereby to lock

said shaft against rocking movement. Disposed parallel with one wall of the tank are spaced branch pipes 30 which discharge into the liquid receiving compartments 12 through suitable inlet ports 31, said branch pipes being operatively connected with a pipe 32 which latter extends to a suitable source of liquid supply. A globe valve 33 is preferably disposed between each branch pipe and the main pipe for controlling the flow of water from the main pipe into the liquid receiving compartments.

Extending through the bottom of each liquid receiving compartment 12 is a pipe section or socket 34 having its lower end threaded for connection with a waste pipe 35, there being a clamping nut 36 threaded on the pipe section or socket 34 and bearing against the lower wall of the tank for clamping the latter in engagement with the lateral flange 37 of the socket member, as best shown in Fig. 5 of the drawings.

Arranged within each compartment is an over-flow pipe 38 having its lower end inclined or beveled to form a plug 39 adapted to enter the adjacent socket 34, the opposite ends of said over-flow pipes being provided with suitable screens 40 through which the liquid in the compartment enters the over-flow pipe when the liquid has reached a predetermined height.

In operation the over-flow pipes 38 are inserted in the socket member 37 and the valves 33 moved to open position thus permitting the water to enter the compartments 12 through the inlet ports 31. The lever 18 is then swung upwardly on its pivotal axis 25 to vertical position which disengages the terminals of the ears 28 from the lug 29 thus permitting the lever to be oscillated to rock the shaft 18 and raise and lower the dish containing vessels within the liquid receiving compartments. After the washing operation is completed the lever 18 is swung downwardly parallel with the rock shaft 18 which causes the ears 28 to engage the lug 29 and in which position the shaft 18 will be locked against rocking movement. The plug 39 is then withdrawn from the socket 37 by exerting an upward movement or pull on the pipe 38 which permits the water in the compartments 12 to be discharged through the socket member to the waste pipe 35.

Any suitable device may be employed for heating the water in the compartments 12 and in some cases the water may be heated at a distant point and discharged into the compartments 12 in a heated condition.

From the foregoing description it is thought that the construction and operation of the device will be readily understood by those skilled in the art and further description thereof is deemed unnecessary.

Having thus described the invention what is claimed is:

1. A dish washer including a supporting frame, a tank having a plurality of liquid receiving compartments, a rock shaft provided with oppositely disposed arms for supporting a dish containing vessel within each compartment, and an operating lever pivotally mounted on the shaft for rocking the latter thereby to alternately raise and lower the dish containing vessels, said operating lever being movable into engagement with the frame for locking the shaft against rocking movement.

2. A dish washer including a supporting frame a liquid containing tank, a rock shaft means carried by the rock shaft for supporting a dish containing vessel, and an operating lever pivotally mounted on the shaft and foldable downwardly in engagement with the frame for locking the shaft against rocking movement.

3. A dish washer including a supporting frame, a tank mounted on the frame and provided with a plurality of liquid receiving compartments, a rock shaft journaled in the frame and provided with means for supporting a dish containing vessel in each compartment, and an operating lever pivotally mounted on the shaft for actuating the latter to raise and lower the dish containing vessels, said lever being adapted to engage the frame when in folded position thereby to lock the shaft against rocking movement.

4. A dish washer including a supporting frame, a tank mounted on the frame and provided with a plurality of liquid containing compartments, a rock shaft journaled in the frame and provided with means for supporting a dish containing vessel in each compartment, a lug carried by the frame, an operating lever pivotally mounted on the rock shaft and adapted to engage the lug for locking the shaft against rocking movement.

5. A dish washer including a supporting frame having spaced uprights, one of which is bifurcated, a tank mounted on the frame and provided with liquid receiving compartments, a rock shaft journaled in one of the uprights and having its other end seated in the bifurcated end of the opposite upright, arms extending laterally from the rock shaft for supporting a dish containing vessel within each compartment, and an operating lever pivotally mounted on the rock shaft and adapted to engage one of the uprights for locking the shaft against rocking movement.

6. A dish washing machine including a supporting frame having spaced uprights, a tank mounted on the supporting frame and provided with a transverse partition defining liquid receiving compartments, a rock shaft journaled in the uprights above the tank and provided with oppositely disposed arms projecting within the compartments and provided with terminal hooks for engagement with a dish containing vessel, and an operat-

ing lever pivotally mounted on the rock shaft and adapted to engage the adjacent upright for locking the shaft against rocking movement when the lever is moved to inoperative position.

7. A dish washer including a supporting frame provided with spaced uprights, a tank supported on the frame and provided with a marginal reinforcing rim having openings formed therein for the reception of the adjacent ends of the uprights, said tank being provided with a plurality of liquid receiving compartments, a rock shaft journaled in the uprights and provided with means for supporting a dish receiving vessel, a lever pivotally connected with the rock shaft for operating the latter, said lever being provided with spaced ears adapted to engage the adjacent upright for locking said shaft against rocking movement when the lever is moved to inoperative position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES W. FETHEROLF.

Witnesses:

WM. AHERN,

O. A. BRAZIE.