May 11, 1926. 1,584,043

S. T. SHEPPARD

MACHINE FOR WASHING DISHES

Filed Feb. 26, 1923

Fig. 1.

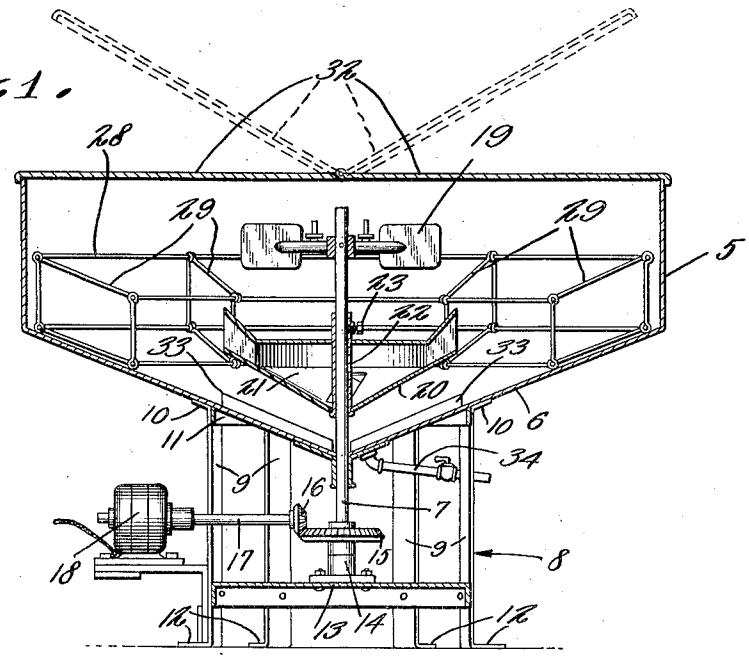


Fig. 2.

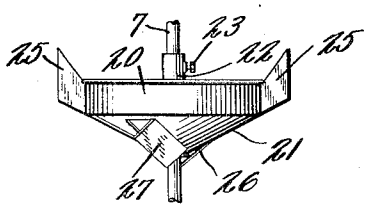


Fig. 3.

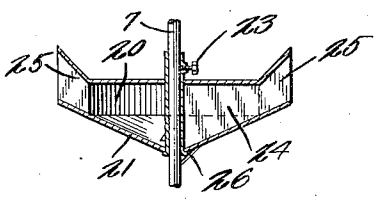
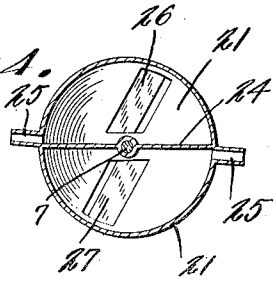


Fig. 4.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR WASHING DISHES.

Application filed February 26, 1923. Serial No. 621,312.

This invention relates to dish washing machines, the primary object of the invention being to provide novel means for creating a swirling action of the washing fluid in the tank of the machine, to cause foreign matter to be dislodged from the dishes placed therein.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a vertical sectional view through the machine.

Figure 2 is a side elevational view of the water throwing head.

Figure 3 is a sectional view therethrough.

Figure 4 is a transverse sectional view through the water throwing head.

Referring to the drawings in detail, the reference character 5 designates the body portion of the washing machine, which is in the form of a tank provided with a funnel-shaped bottom 6 that is formed with an opening to permit the shaft 7 to extend thereinto.

The body portion thereof is mounted on the support indicated generally by the reference character 8 and embodies a plurality of vertical bars 9 that have their upper ends disposed at angles as at 10 where they are secured to the funnel-shaped bottom 6 in any well known manner.

A flange 11 is formed on the outer surface of the funnel-shaped bottom 6 and provides an abutment for the leg members 9, the lower ends of the leg members being shown as extending at right angles as at 12 to provide feet. Mounted between the bars 9 is a platform 13 that provides a support for the bearing 14 in which one end of the shaft 7 operates, the shaft 7 being provided with a beveled pinion 15 that meshes with the pinion 16 carried at one end of the power shaft 17.

This power shaft 17 forms the movable element of the motor 18 which may be supplied with electric energy from any suitable source of electric supply, so that upon operation of the motor, the shaft 17 will be operated to transmit rotary motion to the pinion 15, which in turn rotates the shaft 7.

Keyed or otherwise secured to the upper extremity of the shaft 7 are the paddles 19 which may be adjusted longitudinally of the shaft to bring the paddles to various positions with respect to the dishes supported in the dish racks to be hereinafter more fully described.

Adjustably supported on the shaft 7 and disposed directly under the paddles 19 is a water throwing head 20 which is in the form of a receptacle provided with a funnel-shaped bottom 21 which is also provided with an opening to accommodate the tubular member 22, in which the shaft 7 is positioned, a set screw 23 being provided for holding the head in various positions of adjustment.

As clearly shown by Figure 6 of the drawings, the head 20 is provided with a transversely extending partition 24 dividing the head into lateral compartments, there being provided an outlet opening 25 at one end of each compartment, and an inlet opening 26 in the funnel-shaped bottom 21 of the head, the inlet openings being arranged in the bottom wall of the respective compartments. In order that fluid may be forced into the head 20, plates 27 are provided, which extend downwardly and are designed to scoop up the fluid during the rotation of the head 20 where the centrifugal force of the head throws the fluid from the outlet openings 25, forcing the fluid laterally and spraying the dishes contained in the dish racks.

Supported within the body 5, is a wire frame indicated at 28, which frame is divided into compartments by means of the wire sections 29, the compartments being of lengths to accommodate the dishes to be washed so that the dishes may be placed edge-wise within the racks, whereby the side faces of the dishes will be held in the path of travel of the fluid being thrown from the head 20, to the end that the foreign matter adhering thereto will be readily washed from the surfaces.

In order that the cleansing fluid may be placed in the body 5, hinged covers 32 are provided, which permit of access to the interior of the tank and at the same time guard against fluid being thrown from the tank when the device is placed in operation.

To further insure the agitation of the

cleansing fluid, a plurality of upwardly extended flanges 33 are provided at the base of the funnel-shaped bottom 6 of the body 5, which obstruct the passage of the fluid in a circular path to force the same upwardly.

A drain pipe 34 is in communication with the interior of the tank, and is provided with a valve member 35 to control the passage of fluid from the tank when it is desired to draw the water therefrom and replenish the supply of water.

From the foregoing it will be seen that dishes may be placed in the dish racks, and with the dishes in this position, it is obvious that when the motor is set into motion and the paddles 19 and head 20 rotates within the body 5, a swirling motion of the cleaning fluid is set up which causes the fluid to be thrown against the surfaces of the plates with great force dislodging foreign matter therefrom.

What is claimed as new is:—

In a washing machine, a body portion, a shaft extending into the body portion, a hollow head mounted on the shaft, said head having an inclined bottom, said bottom having cut out portions, plates arranged adjacent to the cut out portions, said plates being disposed at oblique angles with respect to the upper edge of the hollow head, said head having outlet openings, and a partition in the hollow head dividing the hollow head into lateral passageways, leading to the respective openings.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

SAMUEL T. SHEPPARD.