(No Model.)

F. ROWLEY.

DISH CLEANER.

No. 531,389. Patented Dec. 25, 1894.

Fig. 1.

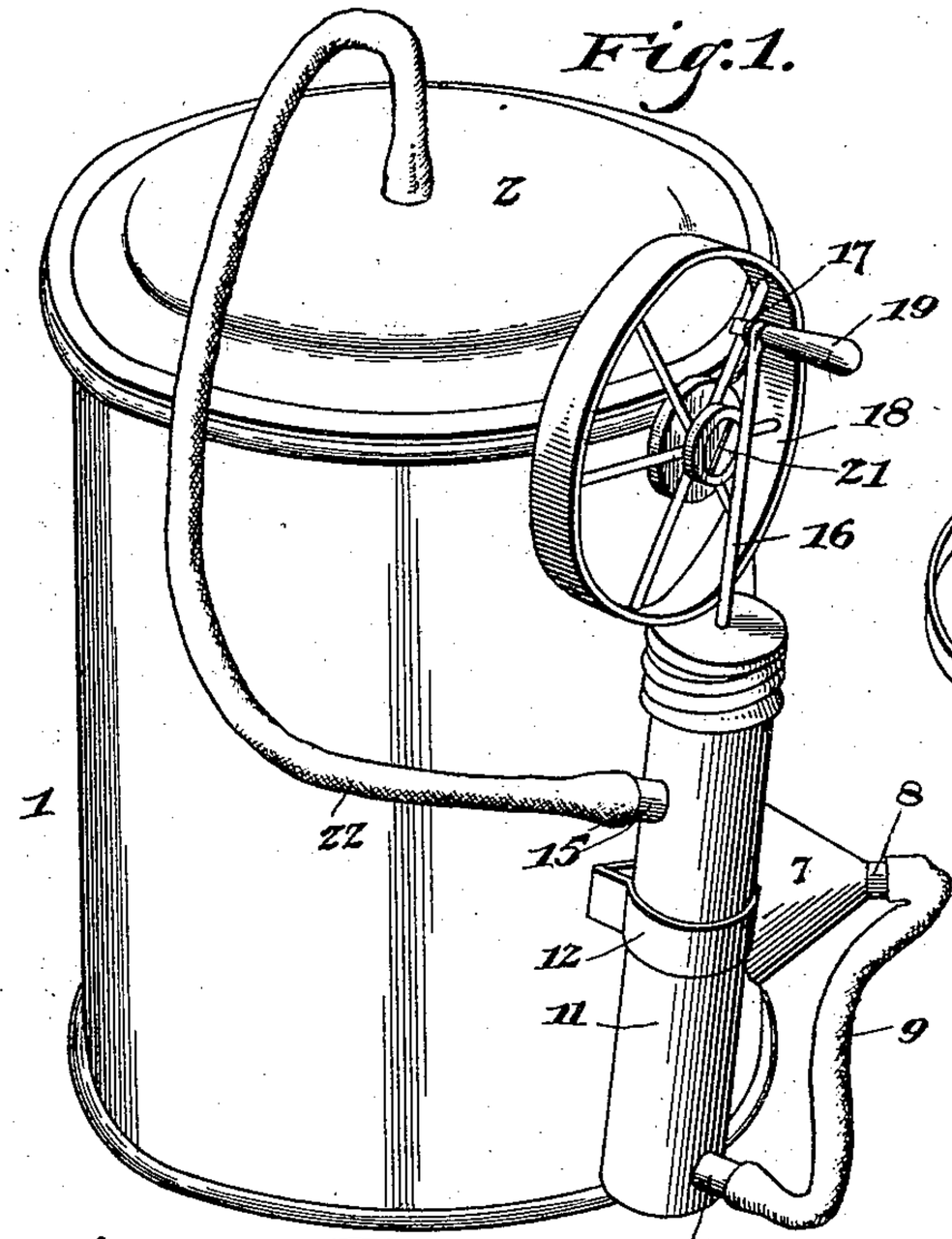


Fig. 4.

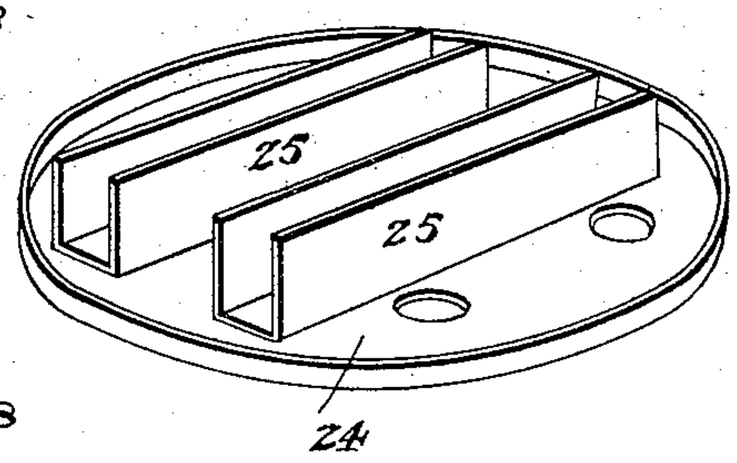


Fig. 2.

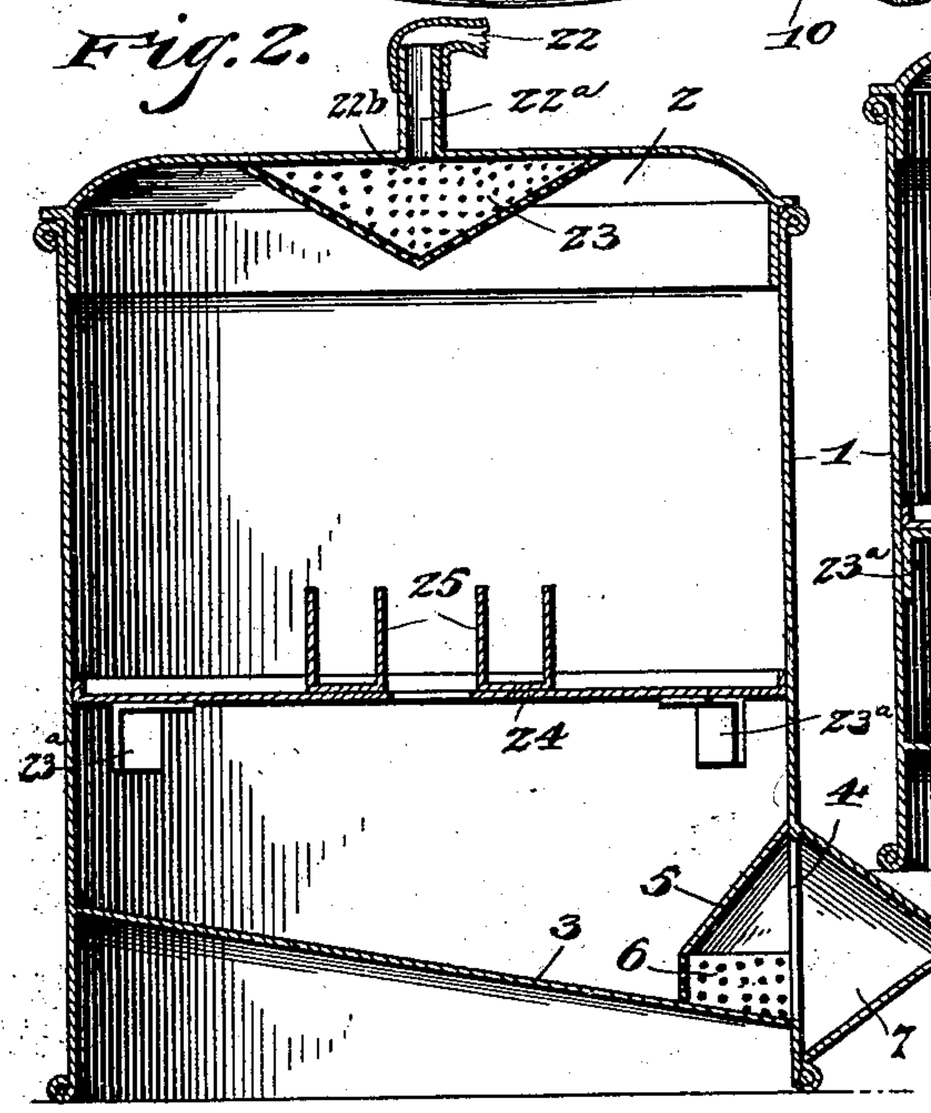
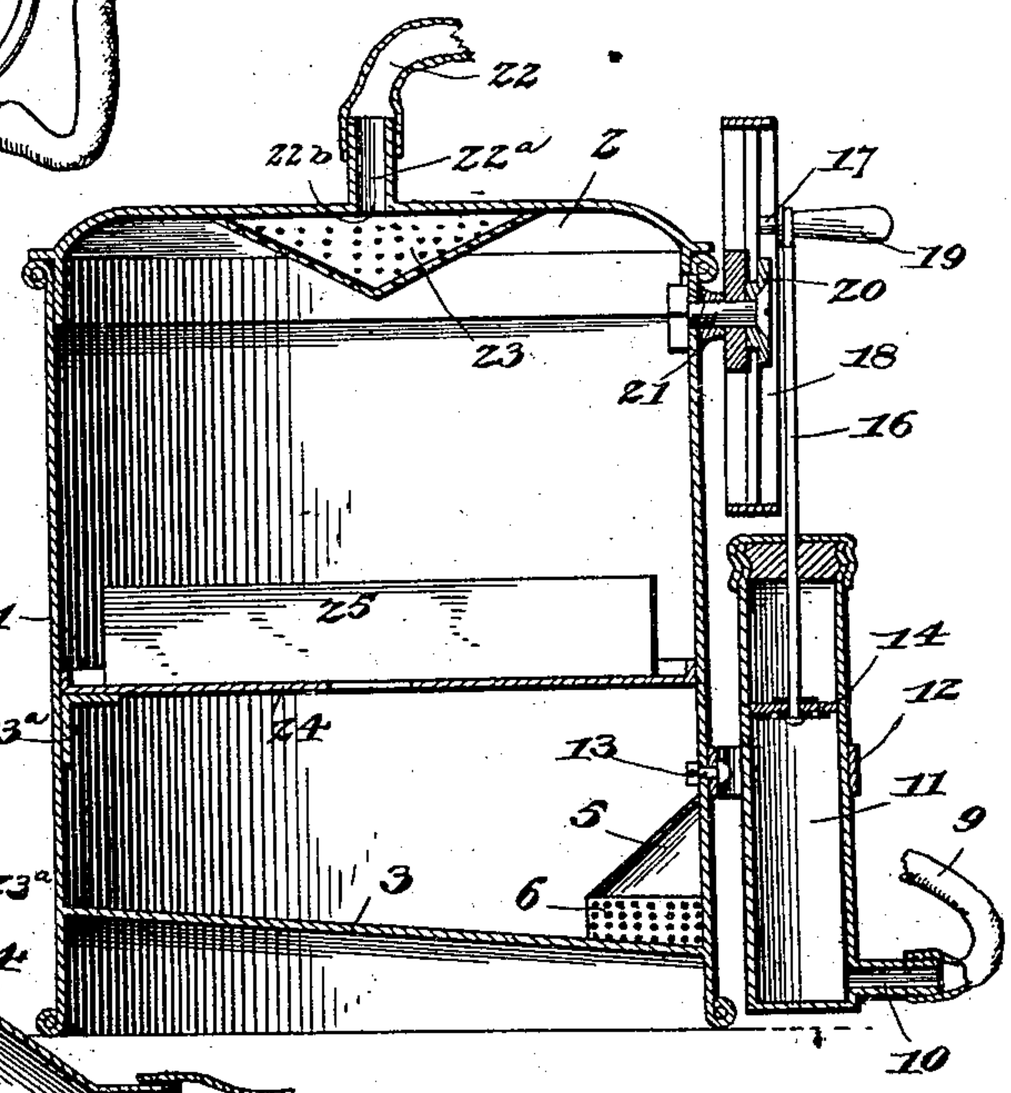


Fig. 3.



Witnesses
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D. P. Holhampton.

Inventor
Frank Rowley,
By his Attorneys.
Church & Co.

UNITED STATES PATENT OFFICE.

FRANK ROWLEY, OF WEST SUPERIOR, WISCONSIN, ASSIGNOR OF ONE-HALF TO GEORGE W. ROBERTS, OF SAME PLACE.

DISH-CLEANER.

SPECIFICATION forming part of Letters Patent No. 531,389, dated December 25, 1894.

Application filed April 30, 1894. Serial No. 509,553. (No model.)

To all whom it may concern:

Be it known that I, FRANK ROWLEY, a citizen of the United States, residing at West Superior, in the county of Douglas and State of Wisconsin, have invented a new and useful Dish-Washer, of which the following is a specification.

This invention relates to dish-washers; and it has for its object to effect certain improvements in dish washers of that class in which the same water may be used continuously for the purpose of washing the dishes and also for making the dishes sufficiently hot so that after the operation of washing the same will quickly and readily dry.

To this end the main and primary object of the present invention is to construct a simple, practical, and efficient dish washer that shall provide means for thoroughly washing and cleansing dishes, and also for drying the same before being moved from the position in which they were placed to be washed.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings;—Figure 1 is a perspective view of a dish washer constructed in accordance with this invention. Fig. 2 is a central vertical sectional view thereof, the line of section including the bottom screened outlet. Fig. 3 is a similar view, the line of section including the oscillating pump cylinder and the pump operating mechanism. Fig. 4 is a detail in perspective of the removable supporting shelf.

Referring to the accompanying drawings, 1 designates a cylindrical, squared, or other suitable shaped wash-tank or receptacle that is adapted to contain or hold a sufficient quantity of water for the purpose of washing a number of dishes, and which may be placed on a stove or in any other convenient position for maintaining the hot temperature of the water to insure a thorough washing and drying of the dishes. The said wash tank or receptacle 1, is open at its upper end to detachably receive the flanged cap or cover 2, and is provided with an imperforate inclined bottom 3, that declines to the bottom outlet opening 4, located at one bottom side of the tank or receptacle, and by reason of the disposition of the bottom, all of the liquid contents of the tank or receptacle are directed toward the bottom discharge or outlet opening 4. Inside of the tank or receptacle 1, and over the inner side of the opening 4, is arranged the fender cap 5, having a lower screen portion 6, that serves to screen the liquid as it is drawn out of or through the opening 4, to prevent dirt, sediment, &c., from being circulated back again onto the dishes being washed, and over the outer side of the opening 4, on the outside of the tank or receptacle, is fitted the conical discharge cap 7, that is sufficiently large to admit of the free discharge or escape of the water from the tank, and is provided at its apex with a reduced neck 8, over which is removably fitted one end of the flexible suction tube or hose 9.

The flexible suction tube or hose 9, is removably fitted at one end over the inlet neck 10, of the oscillating pump cylinder 11. The oscillating pump cylinder 11, receives its supply of water from the bottom thereof through the inlet neck 10, and is embraced at an intermediate point by an attaching clamp 12, that is pivotally and detachably secured directly to one side of the tank or receptacle on the pivot bolt 13. The said cylinder 11, is closed at both ends and accommodates therein the valved piston 14, that serves to draw the water from the bottom of the tank or receptacle into the lower end of the cylinder, and then discharges it out through the upper off-standing outlet neck 15, of the cylinder, and said piston is secured to the inner end of the piston rod or stem 16, the upper outer end of which is pivotally connected to the crank pin 17, of the operating wheel 18.

The operating wheel 18, is provided with a handle 19, mounted on the crank pin 17, and said wheel is provided with a central hub 20, that is mounted on the journal bolt 21, detachably clamped or fitted in one side of the tank or receptacle 1, at the upper end thereof, and it is to be noted that the nuts of the bolts 21 and 13 are arranged on the inside of the tank 1, providing means whereby both of said bolts can be easily loosened up to provide for

the ready removal and replacing of the pump cylinder and said operating wheel when desired. By operating the wheel 18, the cylinder 11, is necessarily oscillated and water is drawn into the bottom of the cylinder and then discharged out through the outlet neck 15, onto which is removably fitted one end of the flexible circulating pipe or hose 22, the other end of which is fitted onto the cover neck 22^a, projected from the top of the tank cover 2, and communicating with the top opening 22^b, whereby the water will be discharged into the top of the tank or receptacle. The water that is circulated into the top of the wash tank or receptacle is sprayed throughout the entire area and toward all sides thereof by the inner depending conical spray cap or rose-jet 23, secured to the under side of the cap or cover 2, over the top opening therein.

The wash tank or receptacle 1, is provided therein at a point above its inclined bottom with an annular series of supporting lugs 23^a, that are adapted to removably support thereon the removable perforated supporting shelf, 24. The supporting shelf 24, is provided thereon with a parallel series of U-shaped dish supports 25, that provide means for conveniently positioning the dishes while being washed, while at the same time allowing the water to circulate through the perforations of the shelf and into the bottom of the tank or receptacle.

With the water in a heated condition and continuously circulated through the wash tank or receptacle it will be obvious that the dishes can be quickly washed and dried with the use of but a small quantity of water, thereby rendering the apparatus very efficient in its particular use, and it will be understood that changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a dish washer, the combination with the tank having a bottom outlet and a top inlet opening; of an oscillating pump cylinder arranged at one side of the tank and having its piston rod or stem extended thereabove, a circular attaching clamp 12, embracing the cylinder at an intermediate point, a bolt 13, detachably and pivotally connecting said clamp 12, to the tank, the nut of said bolt 13 being arranged inside of the tank, an operating wheel having a crank pin connected to said piston rod or stem, a headed journal bolt 21 passed through the hub of said wheel and detachably bolted to one side of the tank, the nut of said bolt 21, being arranged inside of the tank, and the pipes connected with the pump cylinder and the outlet and inlet openings of the tank, substantially as set forth.

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

FRANK ROWLEY.

Witnesses:
WM. R. BRADBURY,
T. V. BADGLEY.