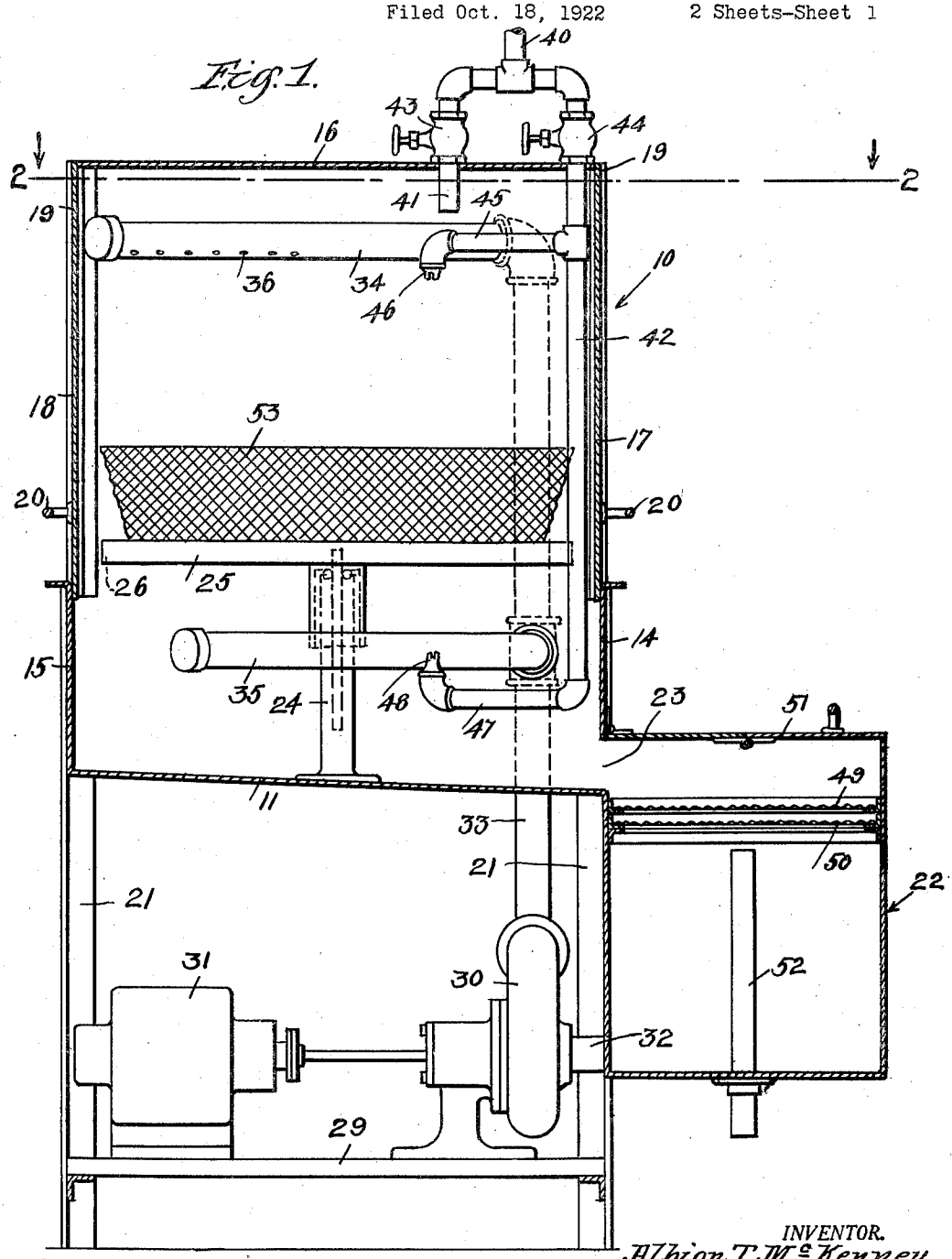
Feb. 10, 1925. 1,525,756

A. T. McKENNEY ET AL

DISHWASHING MACHINE

Filed Oct. 18, 1922 2 Sheets-Sheet 1

Fig. 1.



INVENTOR.
Albion T. McKenney
Joseph C. Goodman and
BY Stanley J. Walsh
Edmund A. Thurston
ATTORNEY.

Feb. 10, 1925. 1,525,756

A. T. McKENNEY ET AL

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Fig. 2.

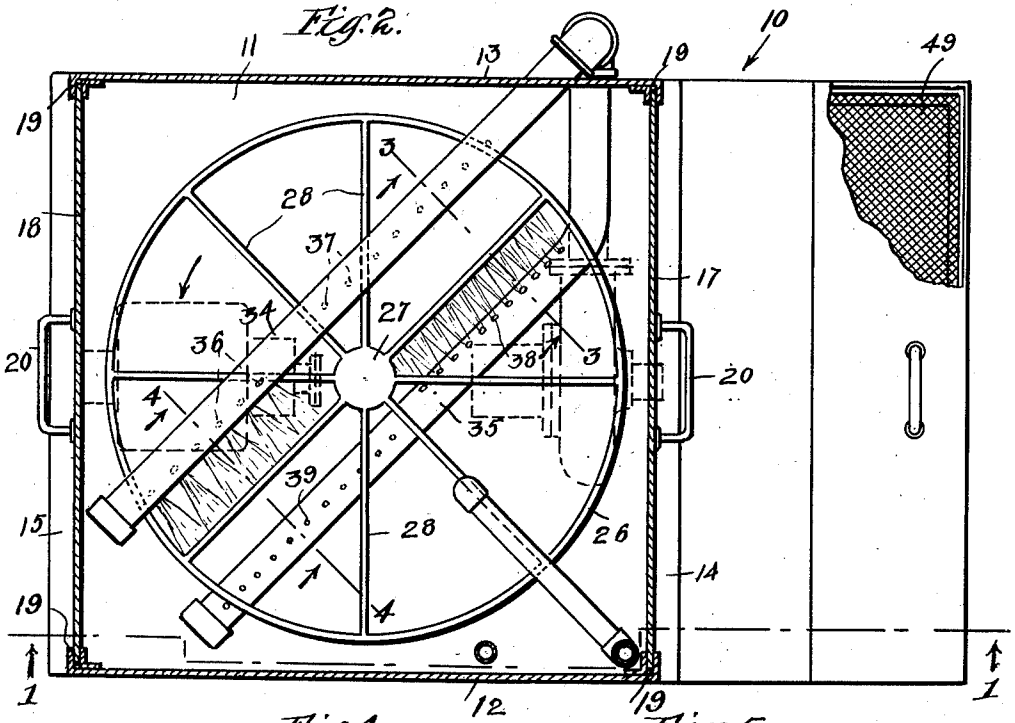


Fig. 3.

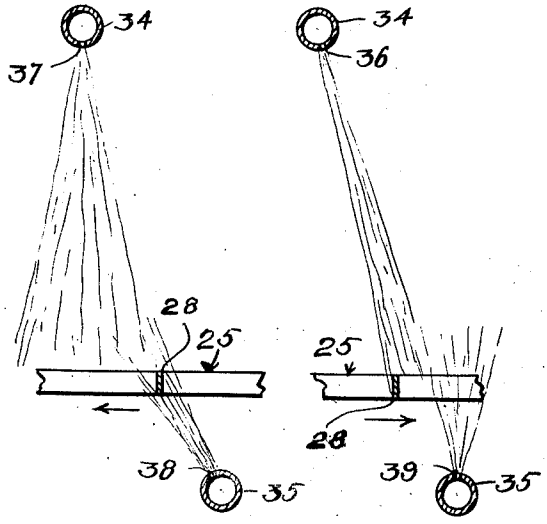
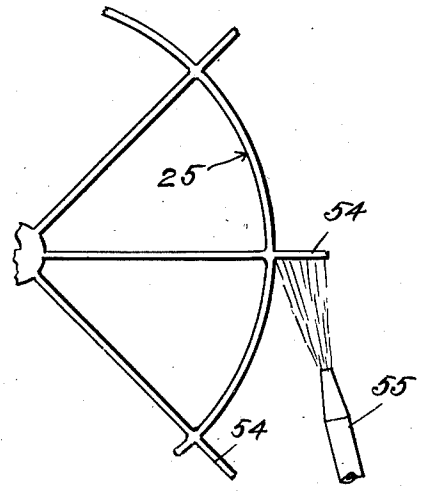


Fig. 4.

Fig. 5.



INVENTOR.
Albion T. McKenney
BY Joseph C. Goodman and
Sidney J. Walsh
ATTORNEY.

Patented Feb. 10, 1925. 1,525,756

UNITED STATES PATENT OFFICE.

ALBION T. McKENNEY, JOSEPH C. GOODMAN, AND SIDNEY J. WALSH, OF LOS ANGELES, CALIFORNIA.

DISHWASHING MACHINE.

Application filed October 18, 1922. Serial No. 595,225.

To all whom it may concern:

Be it known that we, ALBION T. McKENNEY, JOSEPH C. GOODMAN, and SIDNEY J. WALSH, citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Dishwashing Machines, of which the following is a specification.

Our invention relates to dish washing machines, particularly adapted to be used in the kitchens of public eating houses, where it is necessary to wash and cleanse a great quantity of dishes in a minimum time and at the least possible expense.

The object of our invention is to provide a simple, durable and efficient machine for the purpose above described which will operate to thoroughlv and efficiently wash the dishes and then quickly rinse and dry the same.

The above and other objects of our invention will be more fullv disclosed in the following specification, reference being had to the accompanying drawings forming a part thereof, in which:

Fig. 1 is a section through a machine embodying the principles of our invention, taken on the line 1—1 of Fig. 2 viewed in the direction indicated by the arrows.

Fig. 2 is a plan section through the same taken on the line 2—2 of Fig. 1 viewed in the direction indicated by the arrows.

Fig. 3 is a detail section taken on the line 3—3 of Fig. 2.

Fig. 4 is a detail section taken on the line 4—4 of Fig. 2.

Fig. 5 is a fragmental plan view showing a modified construction of the revolving table.

In carrying out our invention we provide a suitable housing 10 preferably formed of sheet iron and having the bottom 11 the side walls 12 and 13, the front and rear walls 14 and 15 and the top 16. The front and rear walls are provided with slidably mounted doors 17 and 18 adapted to be moved upwardly in the guideways 19, formed on the walls 11 and 12, by means of the handles 20 secured thereto. The housing 10 is supported above the floor by means of suitable legs 21, and has secured thereto at its front a filtering tank 22, said tank being adapted to receive the washing solution, from the inclined bottom 11, through a passage 23 formed therein.

Extending upwardly from the bottom 11 of housing 10 is a centrally disposed stem 24 upon which is pivotally mounted a revoluble support or table 25, said table comprising a circular rim 26 secured to the hub 27 by means of the radially disposed spokes or vanes 28.

A platform 29 is secured to the legs 21 and upon said platform is secured a centrifugal pump 30 adapted to be driven by means of an electric motor 31. An intake pipe 32 leads from the bottom of tank 22 to the pump 30 and a discharge pipe 33 leads from the pump 30 upwardly along the outside of the housing 10 and has connected to its upper end a pipe 34 which passes through an aperture in said housing and is disposed above the table 25 horizontally and in a diagonal direction across the housing. A branch pipe 35 leads from the pipe 33 and is disposed below the table 25 also in a diagonal direction with respect to the housing 10, and these pipes 34 and 35 are provided with the groups of perforations 36 and 37 and 38 and 39 respectively.

Leading from a source of hot water supply (not shown) is a pipe 40 provided with the branch pipes 41 and 42 which extend through the top 16 of housing 10 and are provided with the valves 43 and 44 located outside of said housing. The pipe 41 is designed as a filling pipe and projects through the top 16 for a short distance only. The pipe 42 is provided with a branch 45, located above the table 25, and having a spray nozzle 46 secured in its end adapted to direct a spray of water downwardly on the table. The lower end of pipe 42 is provided with a horizontally disposed pipe 47 which extends under the table 25 and is provided at its end with a spray nozzle 48 adapted to direct a spray of water upwardly on the table.

Along the lowermost portion of the pipe 34. for substantially one half of its longitudinal extent is provided a series of perforations 37, while disposed along the other half of its longitudinal extent is a second series of perforations 36, which second series is in the side of the pipe slightly below the central plane thereof. Along the uppermost portion of the pipe 35 is pro-

vided a series of perforations 39 for substantially one-half of the longitudinal extent thereof, while disposed along the other half of its longitudinal extent is a second series of perforations 38, which second series is in the side of the pipe slightly above the central plane thereof.

It is apparent that the water from the perforations 37 and 39 will be directed perpendicularly upwardly and downwardly against the dishes in the basket, while the water from the perforations 36 and 38 will be directed upwardly and downwardly at an angle against the dishes and also against the spokes or vanes 28. The force of the water impinging against the spokes or vanes will be sufficient to rotate the basket when it contains cups and saucers and silverware, or other comparatively light articles. If the basket is filled with large articles, it will be noted that the streams from the perforations 36 and 38, which provide the rotating force, will also impinge against the sides of the articles thereby providing a large surface against which the rotating force will be applied.

The tank 22 is provided with a pair of filtering screens 49 and 50 which are removably mounted therein adjacent its top, the screen 49 being of coarser mesh than the screen 50 thereby providing for the filtering of the particles of food from the washing liquid, and in order that the screens may be conveniently removed when it is desired to clean the same, the tank is provided with a hinged cover 51. The tank 22 is provided with an overflow pipe 52 in order to limit the level of the liquid therein.

The dishes are preferably placed in a receptacle, preferably comprising a woven wire basket or tray 53, adapted to rest upon the table 25, while being washed, and this basket may be of any desired formation and provided with suitable partitions for the separation of the dishes, such partitions not being shown as the construction of the receptacle forms no part of our invention.

In utilizing the washing machine, the soiled dishes are placed in the receptacle 53, which is inserted through one of the doors 17 or 18, and placed on the table 25. The washing compound or soap is placed in the tank 22, the valve 43 is then opened thereby admitting hot water into the tank until it reaches the level of the overflow pipe, at which time said valve is again closed. The pump 30 is then started which sucks the washing solution from tank 22 and forces it through pipes 33, 34 and 35 thence through the perforations therein, thus causing the solution to spray upon the dishes and at the same time to cause the table 25 to revolve as previously described. By this action it will be obvious that all of the dishes in the basket 53 will be throughly cleansed by the force of the solution which passes through them both downwardly and upwardly and strikes them at various angles.

After the dishes have been sufficiently washed, the pump 30 is stopped and at the same time the valve 44 is opened, thus permitting the hot water to spray on the dishes through the nozzles 46 and 48, to rinse the same, the table 25 continuing to revolve under the momentum at this time. When the rinsing process has been completed, the valve 44 is closed, and the dishes permitted to revolve a few times, when they become thoroughly drained and dried. The tray is then removed, and another tray of dirty dishes substituted and the operation is repeated. The same solution however may be utilized for several trays of dishes as this solution is filtered through the screens as previously described.

Although we have described the table 25 as being revolved by the same sprays of water utilized in the washing of the dishes and prefer this construction, it will be obvious that the table may be revolved in many different ways, for instance as shown in Fig. 5 of the drawings. In this construction the table 25 is provided with the radially disposed vanes 54 on its periphery and a stream of water is directed on these vanes through a separate nozzle 55.

What we claim is—

1. In a dish washing machine, a rotatably mounted article supporting member, spray pipes disposed above and below said member, said pipes being provided with means for directing sprays of fluid against the supporting member in oblique directions whereby said member may be rotated, and said pipes being also provided with other means for directing sprays of fluid against the articles on said support to cleanse the same.

2. A dishwashing machine comprising a rotatable dish supporting member, said member being provided with vertical vanes, liquid discharge pipes disposed above and below said support, each pipe being provided with a plurality of perforations, certain of said perforations being located in the sides of the pipes and adapted to direct the liquid in an inclined direction against the sides of the vanes and certain of the perforations being located to direct the liquid vertically from the pipes whereby the said supporting member is rotated and the dishes supported thereby are cleansed.

In witness that we claim the foregoing we have hereunto subscribed our names this 29th day of September, 1922.

ALBION T. McKENNEY.
JOSEPH C. GOODMAN.
SIDNEY J. WALSH.