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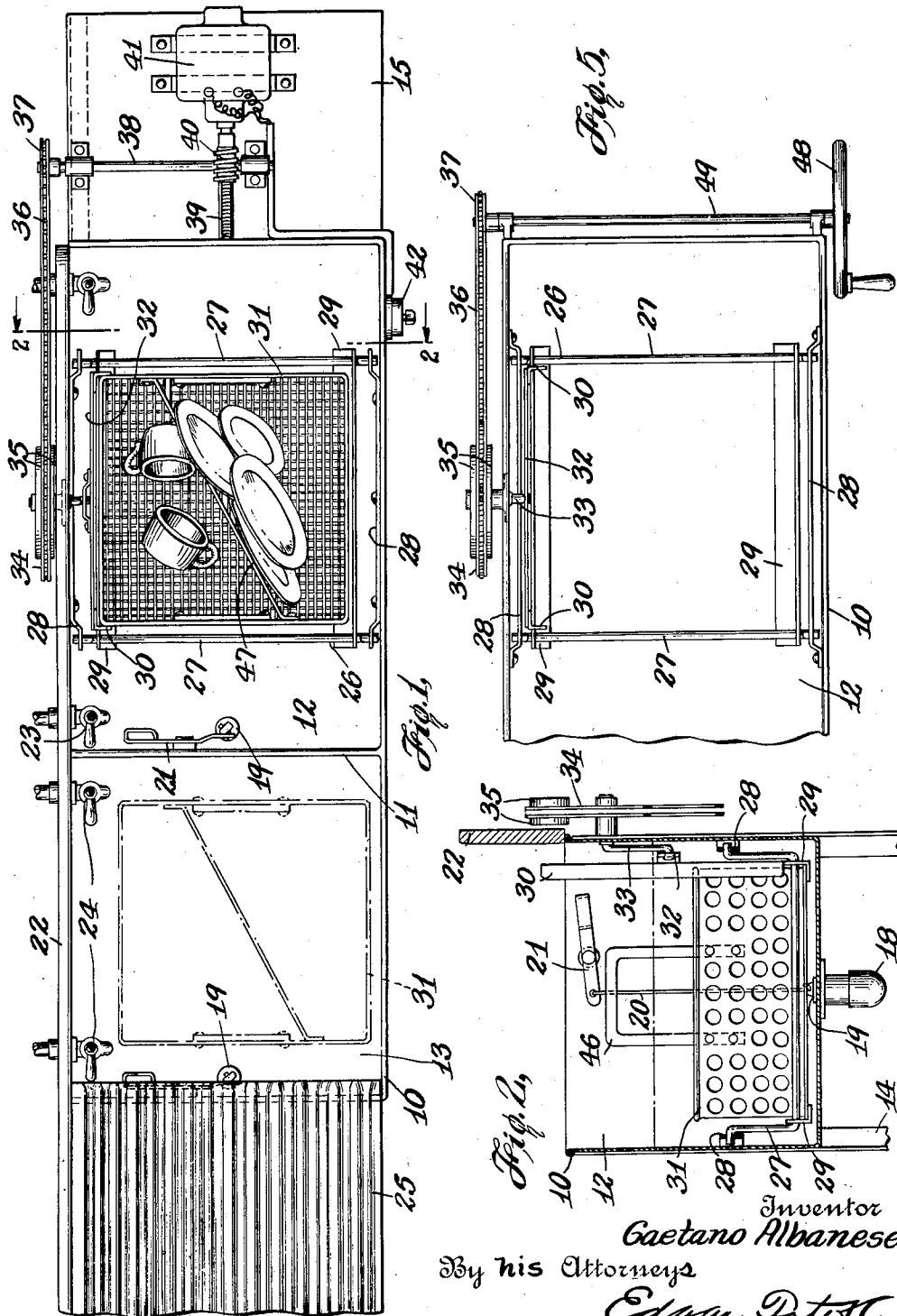
1,543,308

G. ALBANESE

DISHWASHING MACHINE

Filed May 1, 1922

2 Sheets-Sheet 1



Inventor  
*Gaetano Albanese*  
By his Attorneys  
*Edgar Tate & Co.*

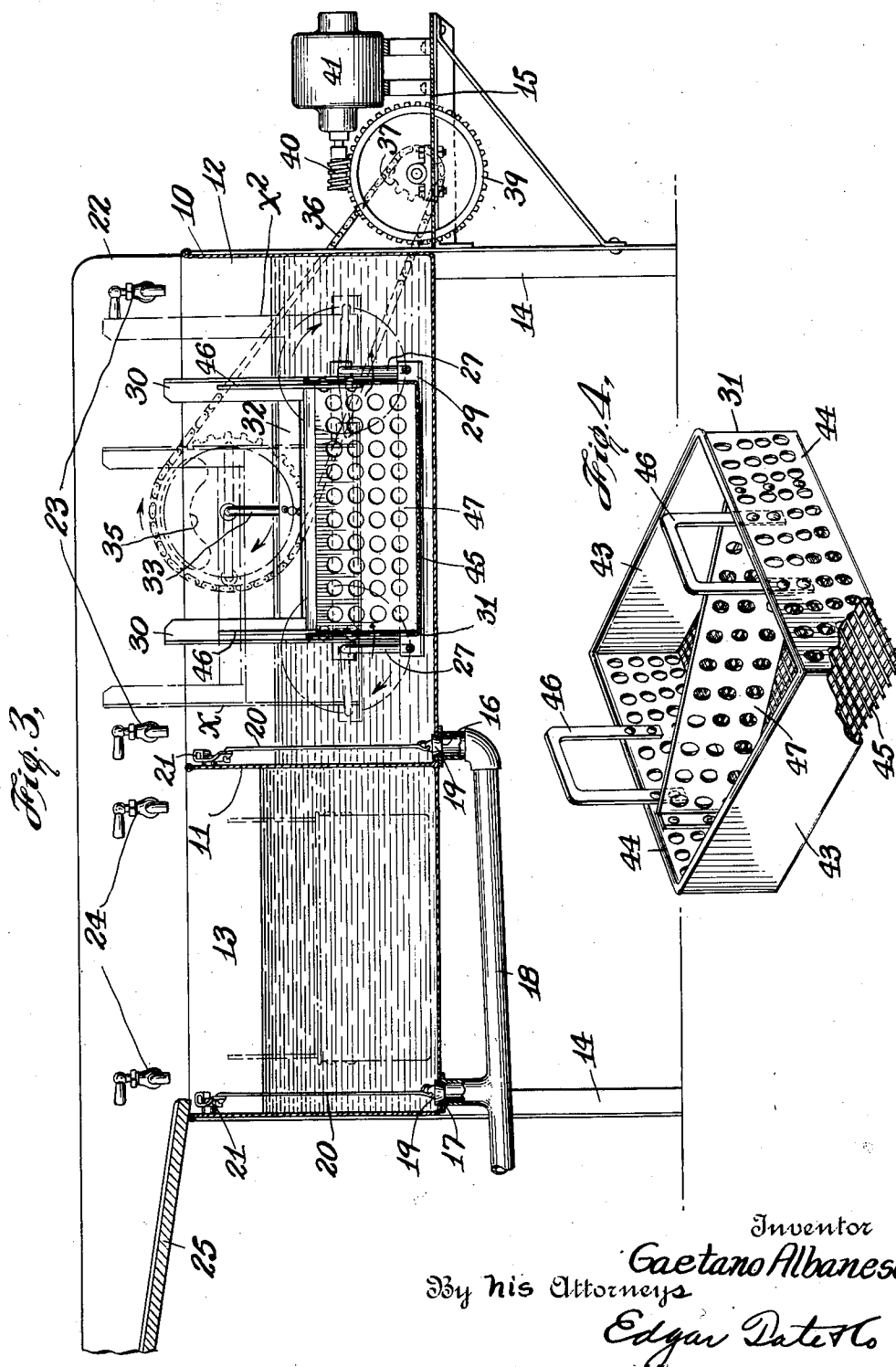
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## UNITED STATES PATENT OFFICE.

GAETANO ALBANESE, OF BROOKLYN, NEW YORK.

## DISHWASHING MACHINE.

Application filed May 1, 1922. Serial No. 557,707.

*To all whom it may concern:*

Be it known that I, GAETANO ALBANESE, a citizen of Italy, and residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Dishwashing Machines, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to dish washing machines and particularly to machines of this class designed for use in small restaurants, lunch-rooms and boarding houses; and the object of the invention is to provide a machine of the class described provided with a rotary reciprocating tray supporting member with means for operating said member; a further object being to so support the dishes in a tray as to facilitate the thorough cleaning or washing of such dishes when placed in the machine; and with these and other objects in view the invention consists in a machine of the class and for the purpose specified which is simple in construction and operation, and efficient in use and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a plan view of my improved machine indicating the method of its use;

Fig. 2 a partial section on the line 2—2 of Fig. 1;

Fig. 3 a central longitudinal section through my improved machine and indicating the method of its use;

Fig. 4 a perspective detail view of one of a number of baskets which I may employ; and

Fig. 5 a plan view of a part of the machine shown in Fig. 1 but showing a modification.

My improved machine comprises, in the construction shown, an oblong rectangular body 10 which is closed at the sides and bottom and open at the top and provided with a central partition wall 11 which divides the body 10 into a large tank 12 and a smaller tank 13, the tank 12 constituting a washing tank, while the tank 13 is a rinsing

tank. The body 10 is preferably mounted upon legs 14 and is provided at one side with a table or platform 15, in the construction in Figs. 1 and 3, and the separate tanks 12 and 13 are provided with discharge apertures 16 and 17 which communicate with a drain pipe 18, and said discharges are controlled by closure devices 19 provided with operating rods 20 which extend upwardly through the tanks 12 and 13, and are connected at one end by pivoted levers 21 by means of which the closure device 19 may be moved into operative and inoperative positions.

At the back of the body 10 of the tanks 12 and 13 is an upstanding wall 22 in which are mounted two sets of hot and cold water faucets 23 and 24, the faucets 23 being located above the tank 12, while the faucets 24 are located above the tank 13, and at one side of the tank 13 is an inclined table or platform 25 upon which the trays which I employ may be placed after rinsing, as hereinafter described.

Movably mounted in the tank 12 is a tray receiving member 26 comprising two transverse crank rods 27 pivotally mounted in strips 28 secured to the inner faces of the front and back walls of the tank 12, as clearly shown in Figs. 2 and 5 of the drawing, and these crank rods are connected adjacent to the front and back walls of the tank by longitudinal angle-iron strips 29, and secured to the strip 29 adjacent to the back wall of the tank 12 are vertically extending angle-iron guide strips 30 which extend normally to the top of the tank 12 and which facilitate the placement of a dish receiving tray or basket 31 in the member 26.

The vertical strips 30 are also joined by a longitudinal strip 32 in connection with which a crank shaft 33 is pivotally mounted, said shaft extending through the back wall of the tank 12 approximately centrally thereof and is provided with a sprocket wheel 34, preferably provided with balance weights 35. In the construction shown in Figs. 1 and 3 of the drawing a chain 36 is passed around the sprocket 34 and around a sprocket 37 mounted upon a drive shaft 38, which is mounted in suitable bearings upon the table 15, and mounted on the shaft 38 is a worm gear 39 which operates in connection with a worm 40 on the shaft of an

electric motor 41 also mounted upon the table 15, and the operation of the motor is controlled by a suitable switch device 42 mounted on the front wall of the tank 12.

5 My improved tray 31 is approximately box-shaped in form and comprises front and rear solid walls 43 and perforated side walls 44 and a perforated or network body 45. The side walls 44 are provided with upright  
10 handle members 46 by means of which the tray may be moved about from place to place and inserted into the separate tanks 12 and 13 and removed therefrom. The basket 31 is also provided with a diagonally  
15 arranged and perforated partition wall 47 which is mounted between the side walls 44, as clearly shown in Figs. 1 and 4 of the drawing, and the object of the wall 47 is to facilitate the placement of plates and  
20 other dishes in an angular position in the basket 31 so as to permit the water in the tank 12 to thoroughly wash and clean both faces of the dishes or plates in the operation of the machine.

25 The operation of my improved machine will be readily understood from the foregoing description when taken in connection with the accompanying drawing and the following statement. The basket support-  
30 ing member 26 will normally assume the position shown in Figs. 1 and 3 of the drawing, and after the required number of dishes to be cleaned have been placed in a basket similar to the basket 31 and the tank 12  
35 filled with water to approximately the height shown in Fig. 3 of the drawing, the basket 31 with the dishes therein is placed upon the member 26, which operation will be guided by the vertical guide rails 30  
40 which extend above the surface of the water, as clearly shown in Fig. 3, and it will be noted that the basket 31 rests upon the strips 29 between the crank rods 27 and is guided and held in position by such crank  
45 rod as well as the guide rails 30, and by operating the switch device 42 the circuit to the electric motor 41 will be closed and the machine put in operation, the drive  
50 shaft 31 being operated through the worm 40 and worm gear 39, while the crank shaft 33 is operated through the chain 36 mounted upon the sprockets 34 and 37, and the operation of the crank 33 will cause the member  
55 26 with the basket 31 therein to be moved forwardly and upwardly into the position shown at  $x$  in Fig. 3 of the drawing and in the continuation of this operation, the member 26 and basket 31 is moved upwardly and backwardly into the position  
60 shown at  $x^2$  in Fig. 3, and then downwardly into the position shown in full lines in said figures thus completing one cycle of operation. In other words, the member 26 with the basket 31 therein  
65 moves forwardly and backwardly in the

tank 12 as well as upwardly and downwardly therethrough, and the water in the tank is caused to flow forwardly and backwardly through the basket 31 and upwardly and downwardly therethrough to thoroughly wash and clean the dishes mounted therein.

In the above operation of the member 26 and basket 31 it will be apparent that the crank rods 27 also rotate as is indicated by  
75 the dot and dash lines in Fig. 3 of the drawing, and in this way I provide a very simple, positive and effective method of actuating the member 26 with the basket 31 thereon, and this operation will clean dishes  
80 in the quickest and most effective manner. After a number of operations the basket 31 will be removed from the tank 12 and placed in the tank 13 to thoroughly rinse the dishes after the basket 31 may be placed on the  
85 table or platform 25 for draining and another basket 31 with dishes therein placed in the number 26 and the operation repeated.

In Fig. 5 of the drawing, it will be noted  
90 that the motor 41 as well as the gears 39 and 40 are omitted, and substituted therefor, I provide a crank wheel 48 mounted upon a shaft 49 upon which the sprocket 37 is  
95 mounted, and with this form of construction it will be apparent that the member 26 is operated by hand instead of an electric motor as in Figs. 1 and 3 of the drawing. It will also be noted that the balance weight  
100 35 on the sprocket 34 operates to balance the basket 31 with the dishes therein so as to prevent sudden movement of said basket and member 26 in the operation thereof,  
105 and especially when the basket 31 and member 26 are moved downwardly into the tank 12, in other words, the weight 35 is designed to balance the weight of the basket with the dishes therein.

It will be apparent that while I have  
110 shown certain details of construction for carrying my invention into effect, I am not necessarily limited to these details, and various changes therein and modifications thereof may be made, within the scope of  
115 the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by  
120 Letters Patent, is:—

1. A machine of the class described comprising a tank, two crank members rotatably mounted in the tank at spaced intervals, a frame mounted on said cranks and supported thereby and a drive crank independent of the first named cranks and  
125 mounted in connection with the frame.

2. A machine of the class described comprising a tank, a basket supporting member  
130 mounted in said tank, a driven crank for

imparting a rotary movement to said member, cranks mounted in said tank and pivotally mounted in connection with the free end portions of said member for supporting and guiding the same and for retaining the member in horizontal position in its rotary movement.

3. A dish washing machine comprising a tank, a power driven crank mounted centrally of one side of said tank, two other cranks mounted in connection with the opposite side walls of the tank and extending transversely through said tank, the mountings of said cranks being below the driven crank and at opposite sides thereof, a basket supporting member mounted on the last named cranks and operatively connected to said first named crank whereby the rotation of the first named crank will impart rotary movement to said member within the tank, and said last named cranks serving to sup-

port said member in horizontal position in the rotary movement thereof in said tank.

4. A dish washing machine comprising a tank, a basket supporting member rotatably mounted in said tank, three cranks for operating said member and for maintaining the same in horizontal position in the rotary movement thereof in said tank, one of said cranks being power driven and coupled with said member to impart rotary movement thereto, and the other of said cranks extending transversely through the tank and coupled with said member and being positioned below the first named crank in common horizontal plane and at opposite sides of the first named crank.

In testimony that I claim the foregoing as my invention I have signed my name this 27th day of April, 1922.

GAETANO ALBANESE.