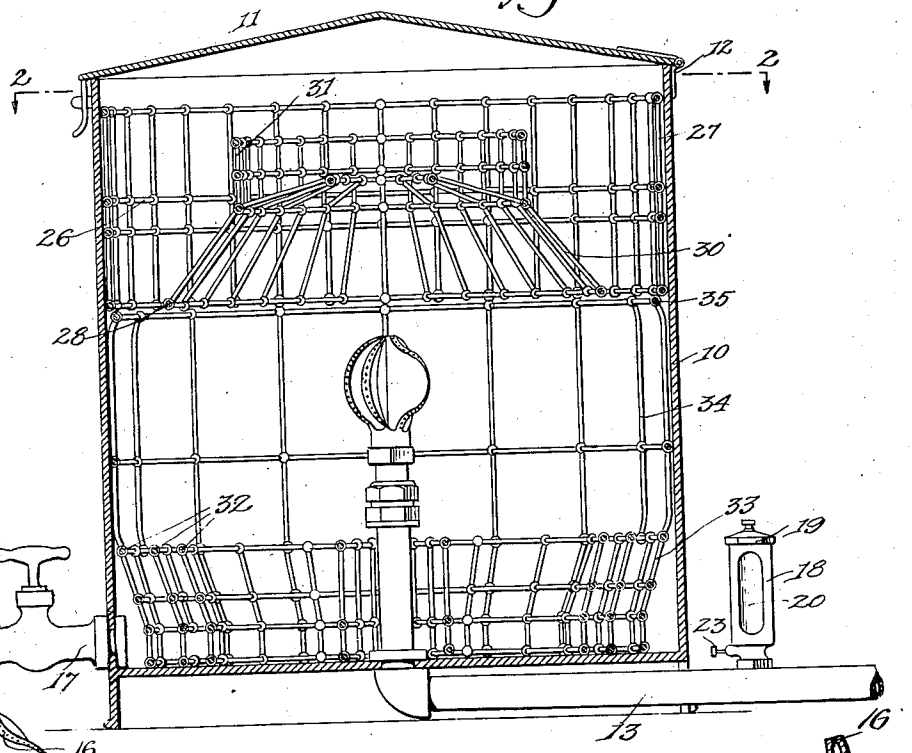
March 31, 1925. 1,531,958

L. T. LATHROP

NOZZLE FOR WASHING MACHINES

Filed May 8, 1920

Fig. 1.



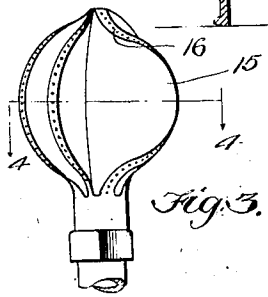


Fig. 2.

Fig. 3.

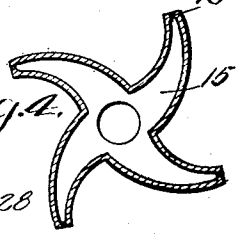
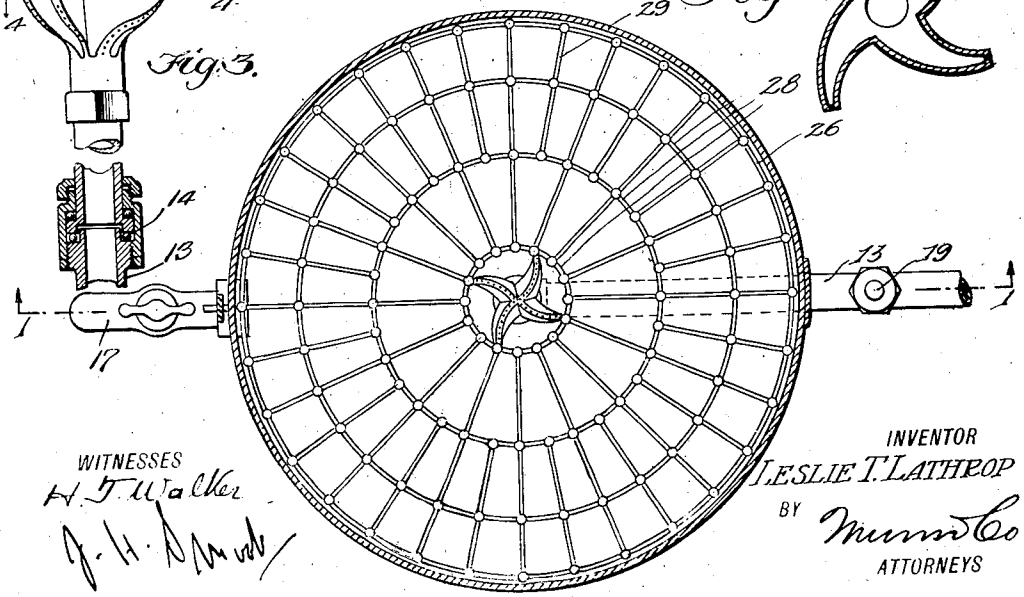


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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NOZZLE FOR WASHING MACHINES.

Application filed May 8, 1920. Serial No. 379,948.

To all whom it may concern:

Be it known that I, LESLIE T. LATHROP, a citizen of the United States, and resident of Fort Ontario, in the county of Oswego and State of New York, have invented a new and Improved Nozzle for Washing Machines, of which the following is a full, clear, and exact description.

My invention relates to a washing and more particularly to a spray nozzle adapted to be employed in connection with a dish washing machine.

The object of the invention is to provide a spray nozzle of the above character which may be rotated from the pressure of water or liquid forced therethrough; and which is exceedingly efficient in breaking up or spraying the water.

The invention is illustrated by way of example in the accompanying drawings, in which:

Figure 1 is a sectional side view of a dish washing machine in which the nozzle of the present invention is incorporated, said section being taken substantially on the line 1—1 of Figure 2.

Figure 2 is a sectional plan view taken along the line 2—2 of Figure 1.

Figure 3 is an enlarged perspective view of the nozzle and also showing in section the rotary mounting therefor, and

Figure 4 is an enlarged sectional view taken along the lines 4—4 of Figure 3.

In these views the reference numeral 10 designates the casing or container, conveniently provided with a cover 11 which may be hinged to the casing 10, as at 12.

Any suitable type of fluid inlet pipe 13 enters the casing 10 through the floor thereof and extends centrally within the same.

Referring now more particularly to Figure 3 it will be seen that a nozzle is rotatably secured as at 14 to the upper end of the pipe 13, this nozzle conveniently including a series of radially and rearwardly extending fins 15 formed with perforations 16 through their outer edges.

It will be noted that each fin 15 gradually decreases in width from its transverse median plane toward its ends, the section line 4—4, Figure 3, lying in said median plane.

It will now be appreciated that water flowing through the pipe 13 will enter the nozzle, and by virtue of the construction of the fins thereof will cause a rotation of the same, the streams of fluid being sprayed broadcast within the casing 10 so that the fluid sprayed from the nozzle reaches any objects positioned within said casing.

Any suitable type of outlet valve 17 may be associated with the casing 10 so as to permit a drainage of the water sprayed from the nozzle. With a view of providing a soapy mixture within the washing machine by means of which a thorough cleansing of the utensils placed therein may be effected, a soap dispenser generally designated by reference character 19 is conveniently associated with the fluid inlet pipe 13.

I conveniently provide upper and lower trays within the container 10, such trays being arranged above and below the centrally positioned nozzle. Referring now more particularly to the upper tray, it will be seen that the same conveniently includes a number of annular bands or wires 26 conforming to the inner face of the container 10, such wires being arranged one above the other and connected together by means of upright wires 27 of any desired construction.

A plurality of wires or bands 28 are concentrically arranged within the space enclosed by the wires 26, and in the same plane as the lowermost of said wires, the bands or wires 28 being retained in this position by any suitable means such as radially extending supporting wires 29.

A suitable frame work is conveniently built up within the upper tray, which frame work preferably includes a series of wires or supporting members 30, arranged in two different inclined planes, a retaining wall such as 31 being conveniently provided at the point of merging of its two planes, and extending upward therefrom.

The lower tray conveniently includes a plurality of concentrically arranged bands or wires 32 which are supported and connected together by means of a plurality of upwardly extending side wires 33 arranged in an inclined plane, the upper ends of certain of said wires being extended upwardly as at 34, and conveniently having an annular wire attached to its ends whereby to provide a support or rest for the upper tray.

By the construction adapted, it will be appreciated that any number of dishes, platters, utensils, etc., may be conveniently arranged at desirable points within the trays, and that the jets of fluid originating from

the nozzle will reach the soiled portions of the plates and utensils so that a thorough cleansing of the same is effected by means of the soap-charged fluid ejected from the nozzle.

It is now to be noted that the innermost concentric wire 32 of the lower tray is of sufficient diameter to permit its being passed over the nozzle so that both trays may be entirely removed for the purpose of thoroughly cleansing the interior of the washing machine.

It will further be appreciated that the construction of my apparatus may be varied in numerous details and that the nozzle and dispenser may be used in numerous connections other than a dish washing machine.

What I claim as new is:—

As a new article of manufacture, a nozzle comprising a hollow body having a plurality of longitudinally extending curved radial fins, each fin gradually decreasing in width from its transverse median plane toward its ends on curved lines, presenting curved longitudinal edges, said edges being provided with a series of openings.

LESLIE T. LATHROP.