May 23, 1933. L. E. BURKETT 1,910,235

DISHWASHING NOZZLE

Filed Nov. 14, 1930

Fig. 1.

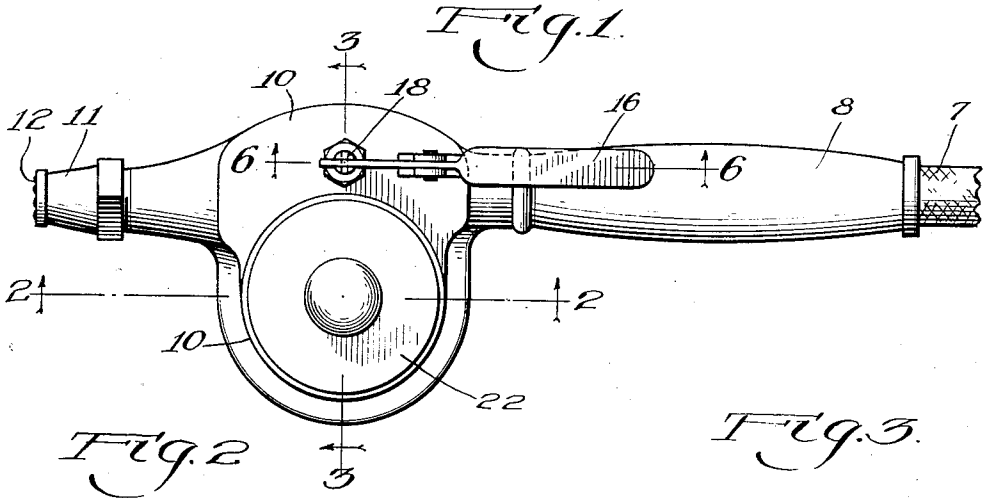


Fig. 2

Fig. 3.

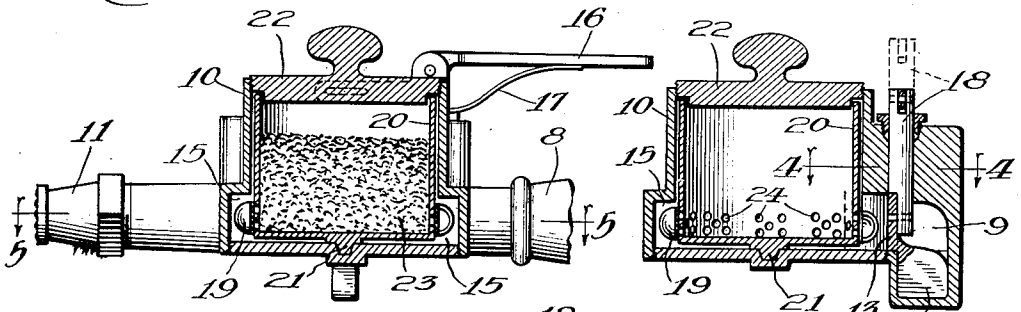


Fig. 4

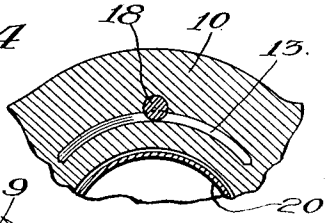
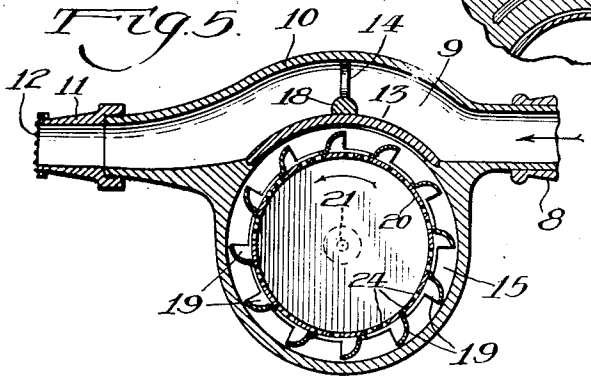


Fig. 5.



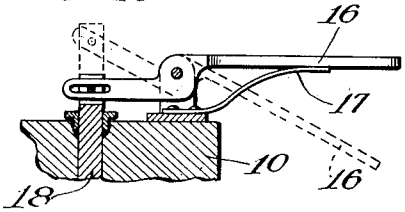


Fig. 6.

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UNITED STATES PATENT OFFICE

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DISHWASHING NOZZLE

Application filed November 14, 1930. Serial No. 495,590.

This invention relates to nozzles of the character employed for washing and rinsing dishes, pots, pans, and the like.

The salient object of the invention is to provide a novel dishwashing nozzle attachable to the hot water faucet of a kitchen sink or elsewhere as the facilities of the user may dictate and which may be used to thoroughly cleanse dishes and the like without the use of any other means.

Another object of the invention is to provide a dishwashing nozzle which may be alternately operated to provide a soapy stream of water for washing or a clear stream of water for rinsing the dishes and the like.

A further object of the invention is to provide a dishwashing nozzle wherein the formation of suds is accelerated.

In the accompanying drawing showing selected embodiments of the invention

Fig. 1 is an elevation of the nozzle;

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, showing soap in the drum;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, showing the drum empty;

Fig. 4 is a fragmental sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2; and

Fig. 6 is a detail sectional view taken on the line 6—6 of Fig. 1.

The nozzle or dishwashing device includes a housing 10 having a handle 8 extending therefrom in one direction and a discharge spout extending therefrom in the other direction and including a discharge tip or nozzle 11 with a screen 12 at the outer end thereof. There is a passage in the handle 8 and opening thereinto is a hose 7 or the like. The hose is connected to the hot water faucet of a sink or to other suitable source of water under pressure. A passage 9 in the housing extends between the handle or inlet 8 and the discharge nozzle 11 and water flows from the inlet 8 into the passage 9 when the valve member 13 is arranged in the position shown in Fig. 3, because this valve member provides a wall of the passage and prevents flow into the chamber 13, to be described, through an opening between the passage and the chamber. The valve member 13 includes a stem 18 extended through the housing 10, and connected to the valve member 13 and on the stem 18 is a baffle 14. When the parts are arranged in the position illustrated in Fig. 3 a clear stream of water will be discharged through the tip 11. However, when a soapy stream is desired the handle 16, pivotally mounted on the housing 10, is depressed into the dotted line position shown in Fig. 6 against the action of the spring 17, this preferably being performed by the user's thumb. The pressing of the handle 16 raises the valve stem 18 and moves the valve member 13 and baffle 14, said baffle moving into a position to close direct flow through the passage 9, so that the water will flow into the soap chamber 15 wherein a drum 20 is rotatably mounted on a trunnion 21, at one end of the drum, journaled in one wall of the housing 10. The opposite end of the drum is open. A cap 22 is screw threaded into the adjacent end of the housing and has a circumferential recess therein in which the end of the drum is arranged to be rotatably supported. On the periphery of the drum 20 vanes 19 are provided against which the water moving past the open valve 13 impinges to impart a rotary movement to the drum 20. By removing the cap 22 soap flakes or powder may be introduced into the drum, and as the water passes thereby the drum is set in rotation which accelerates the saponification of the water which passes into the drum through the openings in the periphery thereof. As best illustrated in Figs. 2 and 3 the housing 10 is enlarged in the portions surrounding the vanes 19 to define a passage through which the water may pass to rotate the drum and be saponified by the soap in the drum. When the device is operated in this manner a soapy stream will be discharged through the tip 11 past the screen 12. In use the device will first be operated so as to discharge a soapy stream; and after the dishes have been thoroughly cleansed thereby, the depressed valve 16 is released and is moved by the spring 17 back into the full-line position in Fig. 6, and thus

a clear stream of water will pass through the nozzle which may be used for rinsing the dishes or the like for the valve 13 prevents passage of water into the soap chamber when in closed position and when the valve is so located the baffle is located to permit free passage of the water through the passage 9.

It is manifest from the foregoing description that I have provided a simple nozzle which may be operated to either discharge a soapy stream or a clear stream. Moreover, I have provided a nozzle wherein the formation of suds is accelerated whereby a very soapy stream will be produced.

In the foregoing description I have set forth a selected embodiment of my invention but it is to be understood that this is capable of variation and modification and I therefore do not wish to be limited to the precise details set forth but desire to avail myself of such changes and alterations as fall within the purview of the following claims.

I claim:

1. In a dishwashing device, a housing including a water inlet and a discharge nozzle and having a chamber therein, said housing including a portion providing a passage between said inlet and said outlet and having an opening intermediate said passage and chamber, a valve for closing said opening, said valve providing a wall for said passage and preventing flow of water into said chamber and directing water from said inlet through said passage to said discharge nozzle when it is in closing position, a baffle in said passage, and means for moving said valve from closing position and for moving said baffle into position to prevent direct flow from said inlet to said discharge nozzle whereby water may flow through said opening and chamber in passing from said inlet to said discharge nozzle.

2. In a dishwashing device, a housing including a water inlet and a discharge nozzle and having a chamber therein, said housing including a portion providing a passage between said inlet and said outlet and having an opening intermediate said passage and said chamber, a valve for closing said opening, said valve providing a wall for said passage and preventing flow of water into said chamber and directing water from said inlet through said passage to said discharge nozzle when it is in closing position, a baffle in said passage and positioned substantially midway between the ends of said opening, and common means for moving said valve from closing position and for moving said baffle into position to prevent direct flow from said inlet to said discharge nozzle whereby water may flow through said opening and chamber in passing from said inlet to said discharge nozzle.

3. In a dishwashing device, a housing including a water inlet and a discharge nozzle and having a chamber therein, said housing including a portion providing a passage between said inlet and said outlet and having an opening intermediate said passage and said chamber, a slidably mounted valve for closing said opening, said valve providing a wall for said passage and preventing flow of water into said chamber and directing water from said inlet through said passage to said discharge nozzle when it is in closing position, a slidably mounted baffle connected to said valve, a stem connected to said valve, and means for moving said stem to move said valve from closing position and for moving said baffle into position to prevent direct flow from said inlet to said discharge nozzle whereby water may flow through said opening and chamber in passing from said inlet to said discharge nozzle.

LEWIS E. BURKETT.