Sept. 20, 1927. 1,642,933

J. T. McGRATH

DEVICE FOR WASHING DISHES AND THE LIKE

Filed Oct. 18, 1922

Fig. 1.

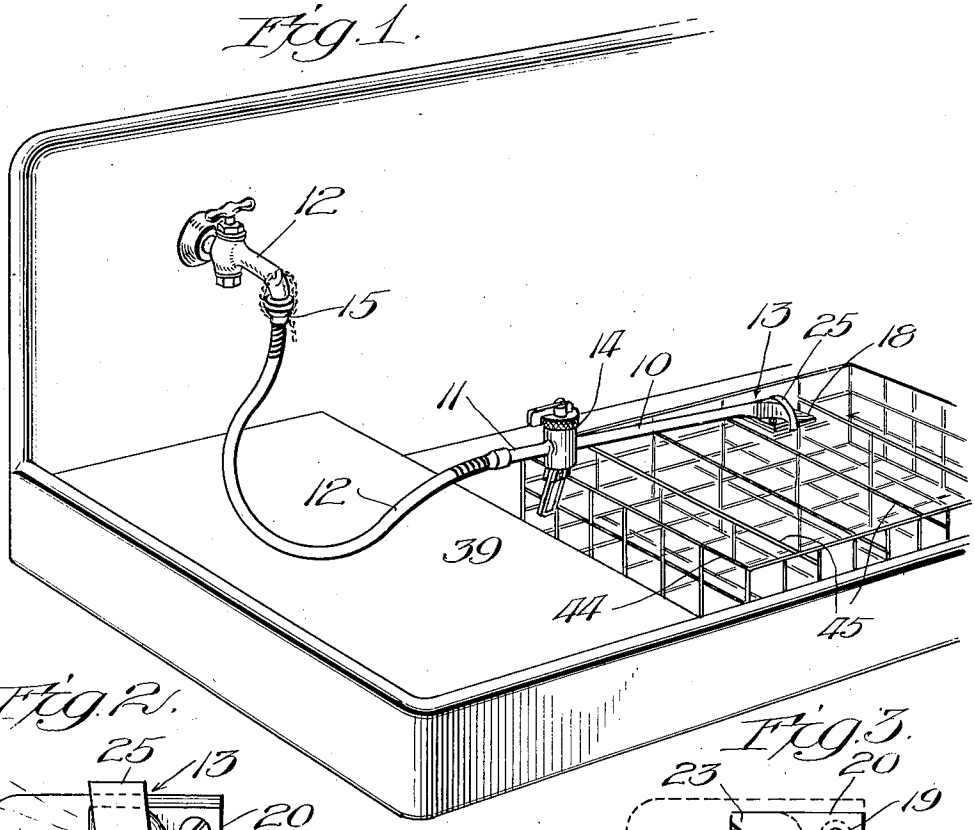


Fig. 2.

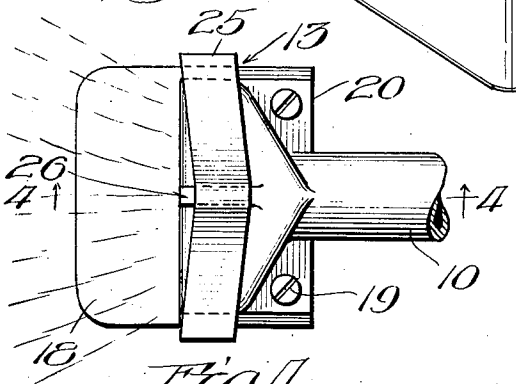


Fig. 3.

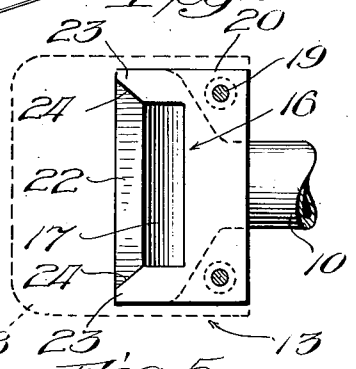


Fig. 4.

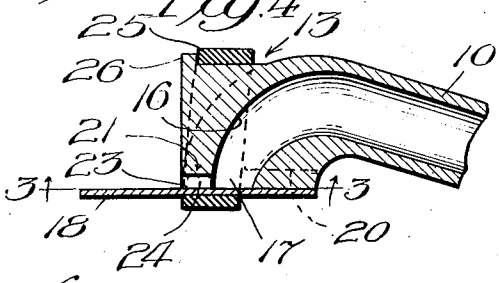
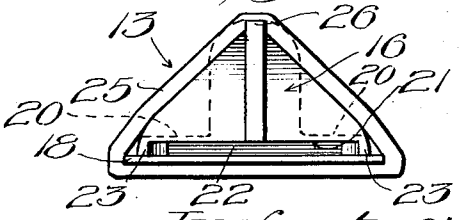


Fig. 5.



Witness:

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UNITED STATES PATENT OFFICE.

JOHN THOMAS McGRATH, OF BLOOMINGTON, ILLINOIS.

DEVICE FOR WASHING DISHES AND THE LIKE.

Application filed October 18, 1922. Serial No. 595,245.

This invention relates to a novel portable device for washing, sterilizing and rinsing dishes and for cleaning pots, kettles and like kitchen utensils, and the invention consists in the elements and combination of elements shown in the drawings and described in the specification, and is pointed out in the appended claims.

The object of the invention is to provide an exceedingly simple device for this purpose which can be used in connection with an ordinary hot-water faucet of a kitchen sink and is provided with means for forcibly directing the water in the form of a thin fan-like spray which increases in width as it leaves the nozzle of the device, and is provided with means whereby the water before reaching the nozzle may be impregnated with soap to force soapy water on the articles to be washed, said means being so arranged that clear rinsing water may be forced therethrough and discharged at the nozzle for rinsing the articles to be washed and is provided also at its nozzle end with a scraping device so arranged that the articles being cleansed may be scraped while the water spray is being directed immediately against the parts being scraped.

A further object of the invention is to provide a portable device of this kind having a handle by which the nozzle of the device may be directed against all parts of the articles to be cleansed and for directing the scraper against articles which need to be scraped during the cleansing operation.

A further object of the invention is to provide a novel form of nozzle and scraping means at the discharge end of the device.

Further objects of the invention are to further improved and simplify devices of this character.

In the drawings.

Figure 1 is a perspective view of a kitchen sink and its hot water faucet, showing my novel washer, sterilizer, rinser and scraper applied thereto.

Figure 2 is a top plan view of the nozzle head.

Figure 3 is a bottom plan view thereof.

Figure 4 is a section on the line 4—4 of Figure 2.

Figure 5 is an end view of the nozzle head.

As shown in said drawings, 10 designates a tube which constitutes the main body of the device. It is formed at its rear end 11 with a roughened portion to receive a slip-over connection to a flexible hose 12 adapted for connection to a faucet, and is formed at its other end with a nozzle designated as a whole by 13 and is provided between its ends with a casing 14 to receive and support a soap dispenser that lies in the path of the water flowing through the conduit formed in the tube 10.

The hose 12 is provided with a flexible wire wound end at its slip connection with the rear end 11 of the tube 10 and is provided at its other end with a bell mouth connection 15 for attachment to the outlet of a faucet and with a chain or strand to support it on the faucet.

The nozzle, designated as a whole by 13, embraces a down-turned portion 16 which is arranged transversely to the axis of the tube 10, and is shaped to provide a narrow discharge slot 17.

18 designates a scraper plate which is herein shown as flat and is attached to the under side of the down-turned nozzle portion 16 as by means of bolts 19,—said nozzle being formed to provide lateral wings 20 to receive said bolts. Said scraper plate extends forwardly beyond the nozzle portion 16 and the lip 21 of the forward wall of the nozzle portion is cut away between its ends to form between it and the scraper 18 a discharge slit 22 for the final discharge of the water from the nozzle portion. The said outer lip 21 of the nozzle portion is not cut from end to end but is formed at its ends with downwardly facing bearings 23 which engage the top of the scraper 18 and constitute the end walls of the slit 22. Said bearing portions 23 are inclined outwardly at divergent angles at 24 so as to give a fan or fishtail form to the thin water spray that is discharged through the slit between the lip 21 and the scraper 18, as indicated in Figure 4. By reason of the flat formation of the scraper plate 18 and its relation to the slit 22, the said spray is discharged over the scraper in a plane parallel to its upper flat face so that, as thus directed, the spray maintains its form with its sides diverging from each other a distance depedent upon the length of the spray, due to the water pressure behind the nozzle.

In order that delicate surface finished articles may not be marred when directing the nozzle thereover to wash the surfaces, an outstanding cushion guard element 25, which may be in the form of a heavy rubber band, is applied over the nozzle portion beneath

the scraper and is confined in place by a lip or holder 26 made integral with the nozzle portion 13.

The operation of the device will be apparent from the foregoing description which may be briefly recapitulated as follows:

The articles to be washed, such as plates, cups, saucers, knives, spoons, etc., may be supported in a basket 44 formed with suitable partitions or supporting ledges 45 of different heights to properly receive and support the different articles. The said basket, with the dishes therein is supported on the bottom of the sink, the basket preferably being provided with legs to raise its bottom away from the sink bottom. Thereafter the bell mouth fitting or connection 15 of the tube 12 is attached to the hot water faucet of the sink and the device is in readiness for action. Said device is manipulated by grasping the handpiece 39 and through it directing the nozzle end of the device towards the dishes in the basket. The first cleansing of the dishes will be through the medium of soapy water furnished by the mixture of the soap compound with the water in the casing 14.

When washing dishes or like articles where food tends to adhere thereto, the surfaces of the articles may be lightly touched with the scraping edge of the scraper 18 to dislodge such adhering substances and inasmuch as the spray is at the scraping edge of the scraper such substances are quickly dislodged and washed away. The device may also be used for washing other articles such as pots, kettles or pans where food and soot deposits are likely to tenaciously adhere. In this event, and with this kind of utensil, the scraper can be pressed on the surface to be cleansed with as much pressure as is required to dislodge the coating or deposit; and the thin fan-like spray will quickly wash the dislodged coating away.

For this purpose the scraper 18 is preferably made of a good grade of steel. The body of the device can be made of non-corrosive, light metal, such as aluminum,—so that it may be kept clean and sanitary and light to handle.

While the details of the illustrated embodiment of the invention has been described with considerable particularity, it is understood that such details may be somewhat varied within the scope of the appended claims and that it is the intent to claim all of inherent novelty disclosed in the drawing and described in the specification.

I claim:

1. A washing device for the purpose set forth comprising a hollow body, a spray nozzle and a rigid scraper, said scraper forming one wall of said nozzle and extending therebeyond and along which the spray is discharged.

2. A washing device for the purpose set forth comprising a hollow body adapted for connection to a source of water supply, a spray directing nozzle at one end of said body embracing a down-turned portion having a transverse discharge opening and a rigid scraper plate carried by said down-turned portion upon which the water is discharged downwardly, there being a spray discharge slit between said plate and nozzle portion.

3. A washing device for the purpose set forth comprising a hollow body, a spray nozzle and scraper, said scraper forming a rigid extension of one wall of said nozzle along which the spray is discharged, said nozzle being formed to produce a thin fan-shaped spray which is discharged across the scraping edge of the scraper, said discharge slit being formed at its ends with outwardly diverging end walls.

4. A washing device for the purpose set forth comprising a hollow body terminating at one end in a nozzle piece having a down-turned washing fluid conduit including a terminal transverse opening, and a flat, rigid plate applied across and beneath said opening and extending beyond said nozzle across and in contact with which the washing fluid flows.

5. A washing device for the purpose set forth comprising a hollow body terminating at one end in a nozzle piece having a down-turned washing fluid conduit including a terminal transverse opening, and a flat, rigid plate applied across and beneath said opening and extending beyond said nozzle across and in contact with which the washing fluid flows, said nozzle having a narrow forwardly directed opening of which said plate constitutes its lower wall.

6. A cleaning tool comprising a handle and a scraping blade of hard material fixed to and projecting from one end thereof and having a scraping edge at its outer end, the handle being provided with a water-conducting bore, a hose-coupling member at one end of the bore, and an outlet at the opposite end of the bore, located adjacent the inner end of the blade, and adapted to project a jet of water beside the blade to the scraping edge thereof.

In witness whereof I claim the foregoing as my invention, I hereunto append by signature this 7th day of October, A. D., 1922.

JOHN THOMAS McGRATH.