Jan. 28, 1930. B. S. COE ET AL 1,745,323

DISHWASHER

Filed March 19, 1927

Fig. 1

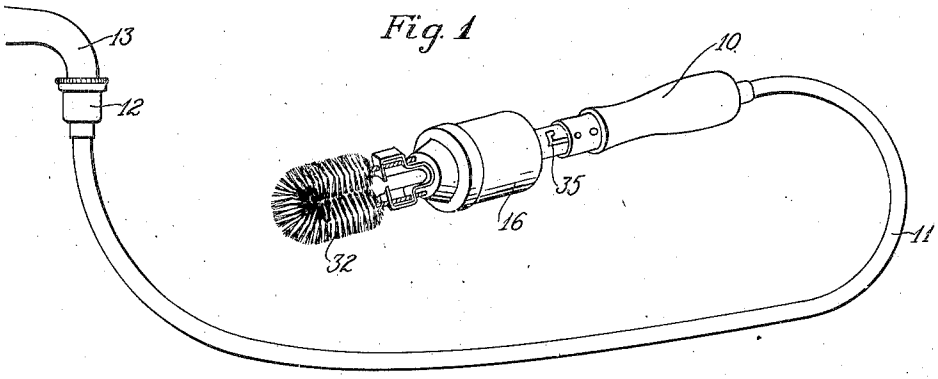


Fig. 2

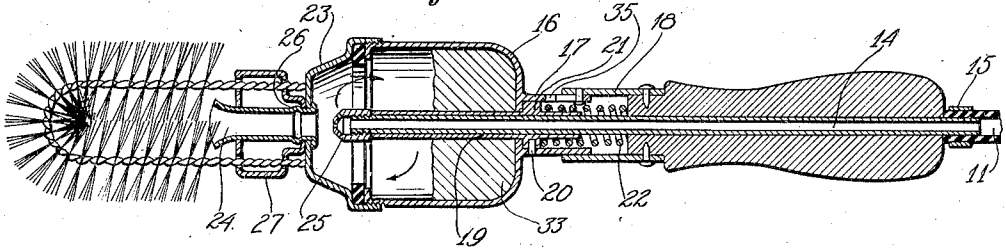


Fig. 3

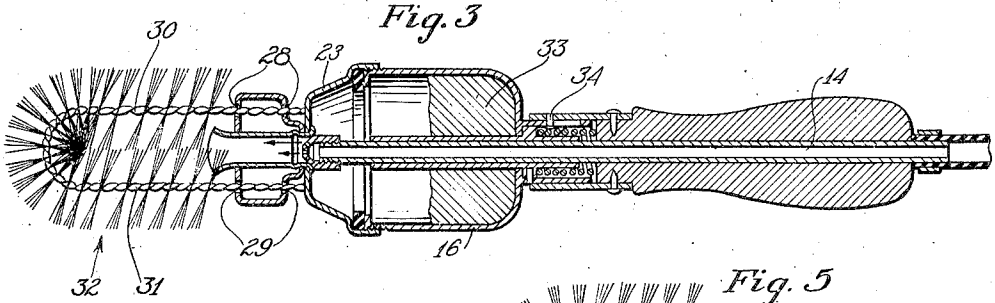


Fig. 4

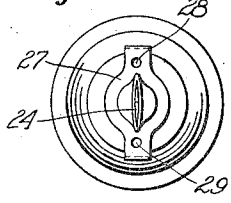
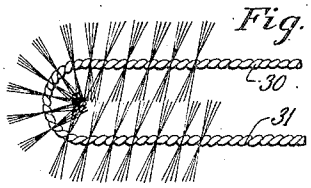


Fig. 5



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UNITED STATES PATENT OFFICE

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DISHWASHER

Application filed March 19, 1927. Serial No. 176,712.

This invention relates to new and useful improvements in cleaners or washers, and has particular reference to apparatus for washing dishes, pans and the like whereby the operator may keep his or her hands free of the hot and oftentimes greasy and soapy water used in that operation.

An object of the invention is to provide a device of the kind stated which is in the form of a hand tool including an operating or working head comprising a nozzle or a nozzle and brush, the brush being removably mounted in the path of a stream of water from the nozzle.

A further object is to provide a washing device having an operating head to which either clear or soapy water may be supplied, the kind of water supplied being controlled by a simple manipulation of a part of the device.

An additional object is to provide a washing device including a handle, a soap receptacle and an operating head, means being carried by the handle for supplying water to the soap receptacle from which it passes to the operating head, or for supplying the water direct to the operating head.

A still further object is to provide a washing device, including an operating head, a soap receptacle and a handle carrying water feed means, with means whereby the handle has two operating positions, in one of which positions the water is supplied to the soap receptacle and thence to the operating head and in the other of which positions the water is fed direct to the operating head, means being provided for holding the handle in either of said positions.

Other and additional objects will appear from a consideration of the following detailed description taken in connection with the accompanying drawing wherein for the purpose of illustration only we have shown a satisfactory embodiment of our invention. It is to be clearly understood that the drawing and the description are not by way of limitation and that for a definition of the limitations of the invention reference must be had to the appended claims.

In the drawings:—

Fig. 1 is a perspective view of our improved washing device, a fragment of a faucet being illustrated to make clear the method of assembly therewith;

Fig. 2 is a longitudinal sectional view showing the parts arranged to supply soapy water to the operating head;

Fig. 3 is a similar view with the parts arranged to supply clear water to the operating head;

Fig. 4 is an end view looking toward the nozzle, the brush being removed; and

Fig. 5 is an elevational view of the brush removed.

Referring in detail to the drawing wherein similar reference characters indicate corresponding parts in the several views, the washer includes a handle 10 adapted to be connected, through the medium of a hose or other flexible tubing 11 and any suitable coupling 12, to a source of water supply, as for example a faucet or tap 13.

Secured to and extending longitudinally and centrally of the handle 10 is a water feed tube 14. This tube as shown in Figs. 2 and 3 projects beyond both ends of the handle and the rear end of the tube is received in the free end of the hose 11 and secured therein to form a water-tight joint as by a ring or clamp 15.

The forward projecting end of the feed tube 14 is shown as projecting through and arranged centrally of a cup-shaped soap receptacle 16. Formed integrally with or secured to the bottom or rear of the receptacle 16 is a cylindrical projection 17, telescopically received in the forward end portion of a ferrule 18 mounted by the handle 10 to which it is secured in any suitable or preferred manner.

Carried by the receptacle 16 is a bearing sleeve 19 which projects through the rear wall of the receptacle. This sleeve may be formed integrally with the receptacle or connected thereto in any suitable manner. For instance a pin 20 may be passed through a wall of the cylindrical projection 16 and into the annular bead 21 formed intermediate the ends of the sleeve 19. A coil spring 22 is arranged within the projection 17 and the fer-

rule 18 and surrounds a portion of water feed tube 14 and the projecting end of sleeve 19. The function of the spring will later be described but here it may be stated that the spring bears at one end against the bead 21 and at its other end against the end of the handle 10.

A removable closure 23 is screw-threaded or otherwise removably secured to the receptacle 16 to permit access to the interior thereof. Arranged through a central opening in this closure is a nozzle 24. Said nozzle is in alignment with a perforated head 25 secured to the inner end of water feed tube 14. While the nozzle may be secured to the closure in any suitable manner we have shown its inner end upset for this purpose. The outer or discharge end of the nozzle is flattened since by such construction a flat knife-like stream of water will be discharged from the nozzle.

Secured to the closure 16 as by means of a bead 26 on the nozzle 24 is a supporting bracket 27. However it is to be understood that the bracket may for our purpose be secured in any suitable manner, as by brazing or the like. At opposite sides of the nozzle, the bracket, which as clearly shown on Figs. 2 and 3 has upper and lower arms, is provided with aligned pairs of openings 28 and 29. These openings, as is apparent, are adapted to removably receive the arms 30 and 31 of a cleaning brush 32.

Brush 32 comprises a number of tufts of hair or wire or the like secured by means of wires which are bent on themselves, to form a substantially U-shaped structure having the resilient arms 30 and 31. To assist in securing the brush to the washer, the arms 30 and 31 have a tendency to spread and when received within the openings 28 and 29 effectively operate to maintain the brush in place.

In the operation of our improved washer, the coupling 12 being connected to the faucet and the water being turned on, such water (assuming the parts to be in the position shown in Figs. 1 and 2) will pass from the perforated head 25 into the soap receptacle. Here the water swirling about will come into contact with the soap 33 and a heavy suds will be formed. This suds passing through the nozzle 24 with considerable force will be discharged into brush 32, if such is being used, or directly onto the article or articles being washed. The supply of soap, which may be a cake, scraps, chips or the like, is readily removable by removing closure 23.

Spring 22 normally maintains the parts in the position shown in Figs. 1 and 2, and in which they have just been described. This is the correct positioning of the parts during a washing operation when soapy water is desired.

After the dishes or other articles are washed it is desirable to rinse them and such rinsing operation is performed with clear water preferably under pressure as when discharged from nozzle 24. To adjust our washer for rinsing it is but necessary to move the handle 10 so as to position a pin 34 carried by ferrule 18 in the transverse portion of a bayonet slot 35 formed in the cylindrical projection 17. This involves a longitudinal and slight rotary movement of the handle against the action of spring 22 and the handle is held in its new position by means of the pin and slot described.

Movement of the handle as just described brings about a corresponding movement of water feed tube 14 and results in the perforated head 25 being seated in the end of nozzle 24 as shown in Fig. 3. In such position the head cuts off communication between the receptacle 16 and the nozzle and dicharges clear water into the latter.

From the foregoing description of construction and operation of our device it will be apparent that the operator does not place his hands in the water used in the washing or rinsing operation. In this way redding and roughening of the hands due to the action of the soap and water is prevented. Extremely hot water may be used since the hand of the operator is insulated by the wooden handle 10.

Moreover, with brush 32 removed a strong stream of soapy or clear water, as desired, may be used for washing or rinsing. Such a stream, due to the flat nozzle, would be flat and knife-like and would effectively serve to dislodge any particle from the articles being washed.

In many instances our washer will be used in connection with a rack in which dishes, etc. are stacked in spaced relation. With such an arrangement the dishes are first washed by a stream of hot soapy water (brush 32 being removed) and then sprayed with a stream of clear hot water for rinsing. No drying of the dishes is then necessary since the water for the most part runs off them and being hot the remainder immediately evaporates.

Having thus described our invention what we claim is:

1. A washer including a cylindrical receptacle having a nozzle in one end and an outwardly extended tubular shank upon the opposite end, a centrally disposed guide tube secured in the receptacle and having its inner end in spaced relation to the inner end of said nozzle, a water feed tube adjustably mounted in the guide tube having discharge openings in its inner end to discharge water therefrom either in the receptacle or nozzle, a handle mounted upon a shank and the water feed tube for adjusting the latter, and spring means mounted intermediate the handle and receptacle to hold the handle and its tube in adjusted positions.

2. A washer including a cylindrical receptacle having an outwardly extended tubular shank upon one end, a removable cover on the other end, a centrally disposed nozzle mounted in the cover, a guide tube secured to the shank end of the receptacle and extending into the receptacle with its end in spaced relation to the nozzle, a water feed tube open at its inner end and adjustably mounted in said guide tube to discharge water from its end either in the receptacle or nozzle, a handle secured upon the tube and adapted for operating the latter, means intermediate the guide tube and water feed tube to limit the movement of the latter, and means intermediate the shank and handle to normally hold the latter and its tube in adjusted positions.

3. A washer including a cylindrical receptacle having a nozzle in one end and a tubular shank extended outward from the opposite end, a centrally disposed guide tube secured in the receptacle, a water feed tube closed throughout its length but having an open end adjustably mounted in the guide tube to discharge water from said end either in the receptacle or nozzle, a handle adjustably mounted upon the shank and tube, means to normally hold the handle and its tube in adjusted positions, and a seat formed in the inner end of the nozzle in alignment with and adapted to receive the tapered end of the water feed tube carried by the handle.

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 17th day of March A. D. 1927.

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