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A. E. BROWN

DEVICE FOR WASHING AND STERILIZING GLASSES AND CUPS

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Fig. 1.

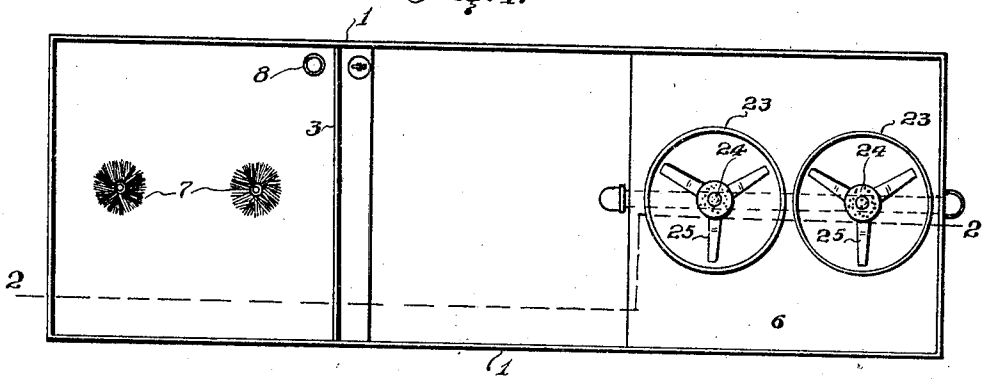
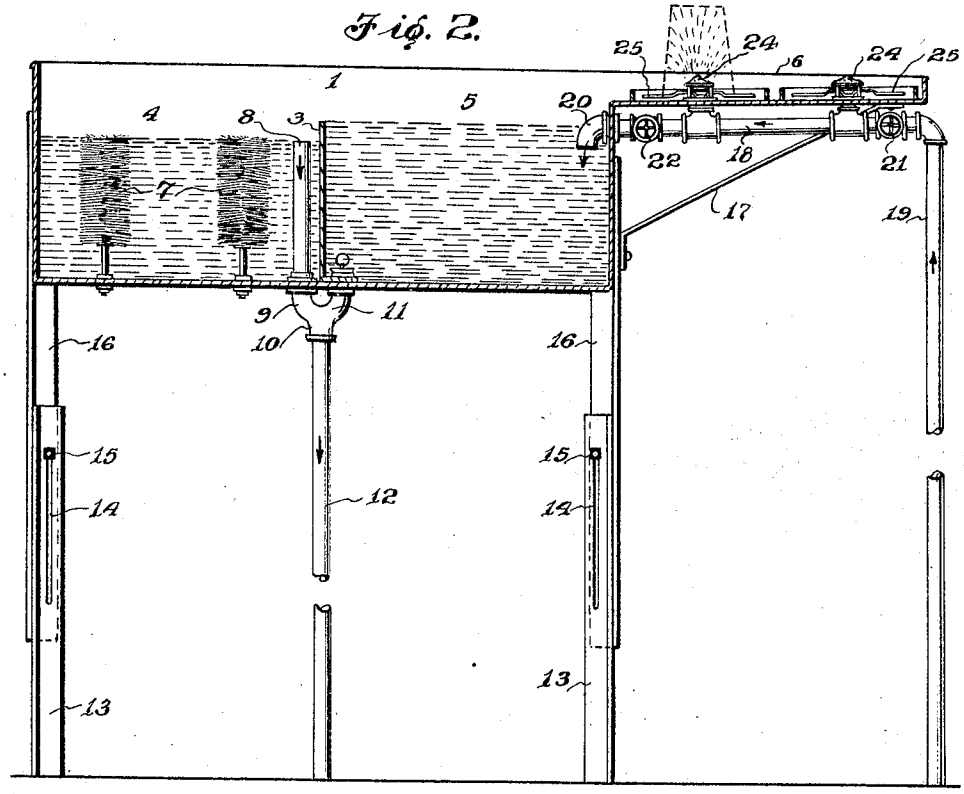


Fig. 2.



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DEVICE FOR WASHING AND STERILIZING GLASSES AND CUPS.

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This invention relates to a new and improved means for washing drinking glasses, cups and like articles, and is especially designed for use in cleansing and sterilizing glass tumblers, cups and like receptacles.

The prime object of this invention is to provide simple, novel, economical, durable and efficient means for so cleansing and sterilizing glasses, cups, and the like as to avoid the excessive breakage of such articles caused by the automatic dish-washing machines now in general use.

Another object of the invention is to so construct my improved device that it may be readily utilized by any one unskilled in the art of cleansing and sterilizing glasses and cups.

A further object of the invention is to so connect the structure that it serves as a sanitary device for the purpose for which it is employed, and is especially adapted for use in hotels, restaurants and similar places of business.

The foregoing and such other objects as may appear from the ensuing description are accomplished by the construction, arrangement, location and combination of the several parts hereinafter more fully described, illustrated in the accompanying drawings and particularly pointed out in the claims appended hereto, it being understood that slight changes in the precise proportions and minor details of the construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of this specification it will be seen that:—

Figure 1 is a plan view of the improved device embodying my invention, and

Figure 2 is a sectional elevation taken in the plane of the dotted lines 2—2, Fig. 1.

In the embodiment of my invention as illustrated, it will be seen that the numeral 1 indicates a metallic tank, preferably of galvanized iron consisting of a single piece of metal formed with a partition 3, centrally arranged within the tank proper extending upwardly to a point near the top of said tank, thereby forming a washing tank 4 and a hot water rinse tank 5, and with an integral extension or drain board 6 at the right hand end of the tank for the purpose hereinafter described.

Detachably and romovably secured to the bottom of the washing tank 4 are a plurality of stiff upright fibre brushes 7, said brushes being so arranged that at least two glasses or cups may be placed over the brushes, one in each hand, and at the same time cleansed and scrubbed by contact with the brushes. The tank 4 is partially filled with hot water which preferably covers the top portion of each brush and is provided with an overflow pipe 8 which extends upwardly to a point slightly below the upper terminal of the partition 3, and is so arranged that all grease or foreign substance removed from the glasses or cups during the washing operation will be readily carried off through said pipe 8 which is connected at its lower end with one branch 9 of the V-shaped connection 10, the other branch 11 of said connection 10 being connected with the waste outlet of the rinse tank 5, while the lower end of the connection 10 is fitted to a drain pipe 12, the latter being connected with any suitable discharge outlet.

The tank is supported at any suitable height by the metallic adjustable angle bars or legs 13 each of which is provided with an elongated slot 14 formed therethrough adapted to receive a securing bolt, each bolt having a securing nut 15 fitted thereto, whereby said bars or legs 13 are adjustably secured to the upright angle bars 16, the latter being fixedly or otherwise suitably secured at their upper ends to the tank 1, and fixedly secured to one end of the tank is one end of a brace bar 17, the other end of the bar 17 being fixedly secured to the underside of the extension 6 for the purpose of maintaining said extension in a rigid position at all times.

Fitted centrally to and beneath the extension 6 which forms a drain board, is a hot water supply pipe 18, which is connected at its outer end with the hot water inlet pipe 19 connected with the hot water system, while the inner end of said supply pipe 18 is passed through an opening formed through one end of the tank and terminates with a nozzle 20 adapted to discharge the hot water into the rinse tank 5. The hot water supply pipe is provided with the well known form of pressure regulating valve 21 and cut-off valve 22. Centrally arranged and fixedly secured to the upper surface of the extension or drain board 6 is a plurality of sterlizing basins 23 each being formed with an annular upright extension adapted

to retain enough of the hot water to sterilize the outside rim of each glass or cup, and projecting through an opening formed through said extension or drain board centrally of each basin, is a suitable spray 24, connected with any suitable spring pressure valve (not shown) to the hot water supply pipe 18, the upper end of each of said valves terminating with a plurality of radially extending prongs or arms 25, adapted to receive the upper edge of each glass or cup, when inverted and pressed downwardly against said prongs or arms, which pressure releasing the water causes it to be thrown by the spray against the inside of the glass or cup, thus effectually sterilizing said receptacle, as will be readily understood, all overflow being readily drained from the downwardly inclined extension 6 to the rinse tank.

The method of operation may be briefly described as follows: By turning the valve 22 hot water is caused to flow into the rinse tank 5 thence overflows into the washing tank 4 and when said tank 4 is filled to the proper level the supply is cut off and the device is now ready for use. Glasses or cups are placed along side of tank 4 in the usual glass racks or trays. Two glasses, one in each hand are inverted and placed over the brushes, when by both a rotary and reciprocating movement being imparted to the glasses they are readily cleansed and scrubbed by contact with the fibre brushes 7, the glasses are then rinsed in the clear hot water in tank 5, after which they are placed in inverted position on the prongs or arms 25, when by pressing downwardly on said arms the sprays serve to complete the cleansing process and at the same time sterilizes the glass, after which they may be placed on trays ready for use.

By the construction and arrangement hereinbefore described it will be perceived that the stationary removable and detachable brushes furnish the maximum amount of washing surface, ease of handling and avoidance of breakage; that the height and arrangement of overflow pipe in the wash tank will readily carry off all grease and foreign matter removed by the washing operation; that the arrangement of the intake pipe in tank 5 and the overflow from the drain board will flush and keep the water clear, clean and at an even temperature; that the height and arrangement of the sterilizing basins completely sterilizes all portions of the glass or cup; that the arrangement of the drain from the tanks is extremely simple and convenient to take care of all drainage, and that the arrangement of the pressure valve on the sterilizing sprays may be regulated to take care of any pressure that may be on the hot water system of the hotel or restaurant.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. A cleansing and sterilizing device of the character described, comprising a tank formed of a single piece of metal having an upwardly and outwardly extended integral drain board extension, a partition secured therein intermediate its ends and terminating below the top to form a washing tank and a rinse tank, means for rigidly securing a plurality of brushes to the bottom of the washing tank, an overflow pipe secured to the bottom of said washing tank, a drain outlet at the bottom of the rinse tank, and a hot water supply pipe connected with the rinse tank beneath said extension.

2. A cleansing and sterilizing device of the character described, comprising a tank formed of a single piece of metal provided with an outwardly and upwardly extended member at one end forming a drainboard, a plurality of annular upright extensions fixedly mounted upon the upper surface of the drain board, a partition secured within the tank intermediate its ends and terminating below the top of the tank to form a washing tank and a rinse tank, means for rigidly and detachably securing a plurality of brushes to the bottom of the washing tank, an overflow pipe connected with the washing tank, a drain outlet for the rinse tank, and a hot water supply pipe connected with the rinse tank below the drain-board.

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