T. H. FRETER.

WASHING AND STERILIZING APPARATUS.

APPLICATION FILED OCT. 4, 1920.

1,388,249. **Patented Aug. 23, 1921.**

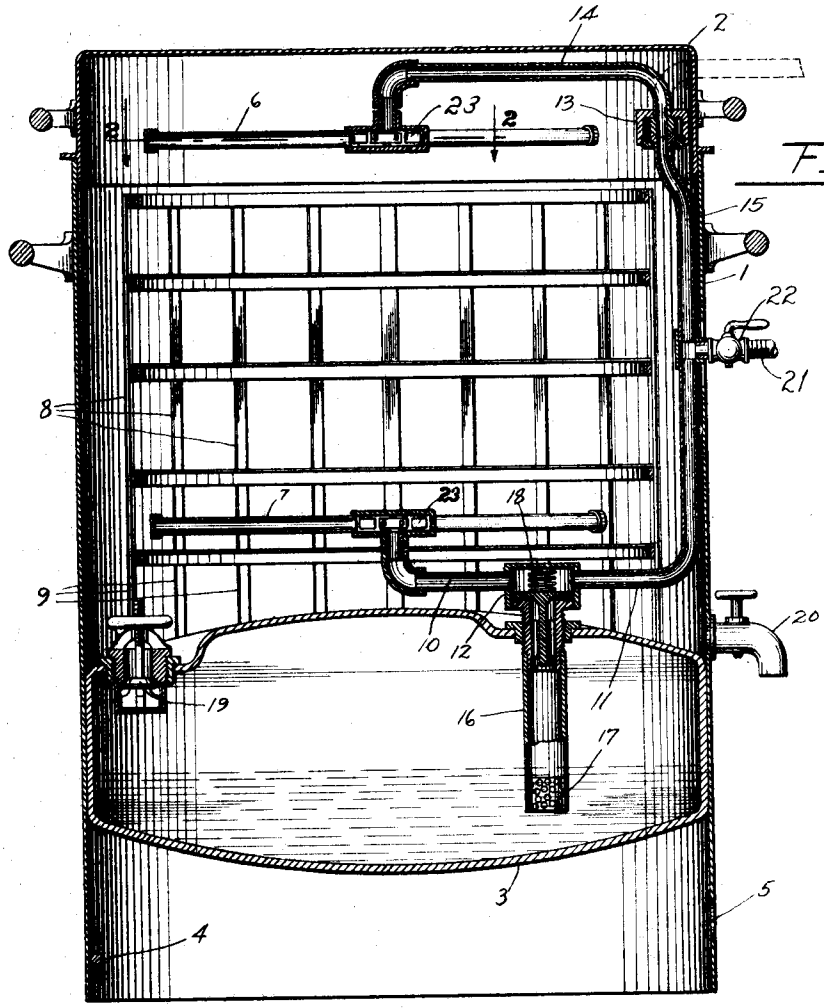


FIG. 1.

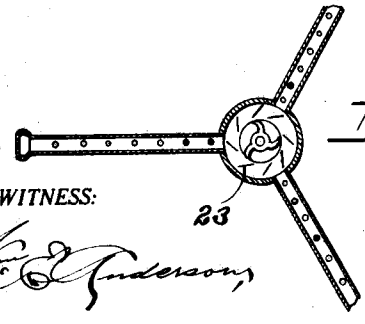


FIG. 2.

WITNESS:

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WASHING AND STERILIZING APPARATUS.

1,388,249. Specification of Letters Patent. Patented Aug. 23, 1921.

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To all whom it may concern:

Be it known that I, THEODORE H. FRETER, a citizen of the United States of America, and a resident of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Washing and Sterilizing Apparatus, of which the following is a specification.

This invention relates to dish-washing or sterilizing apparatus, and its object is to provide a machine of that nature wherein the cleaning and sterilizing effect is produced by rotating nozzles adapted to project with considerable velocity fine streams of hot water against the articles operated upon.

It is among the objects of the invention to provide a machine of the class mentioned having upper and lower nozzles or sprinkling elements in which the upper sprinkling element is hingedly connected to its water inlet tube, and to provide an arrangement of supply tube for both of the nozzles which projects downwardly in the boiler below some predetermined water line.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which—

Figure 1 represents the device in side elevation with the casing, boiler and certain details shown in section.

Fig. 2 is a fragmentary horizontal section of one of the sprinkler elements taken on the line 2—2 of Fig. 1.

With this end in view the machine comprises, generally, a cylindrical casing adapted to rest over an opening in a stove, or to contain a gas or other burner in its lower part for providing the necessary heat. Spaced upwardly from the bottom edge of the container is a boiler and supported above the boiler is a wire basket for containing articles to be cleaned by the machine. Rotary nozzles are located below and above the basket and communicate by tubes with the interior of the boiler below the normal water line. The upper nozzle is supported by a hinged joint which permits it to be swung outwardly so that the articles may be placed in or removed from the basket without difficulty, or the basket itself may be removed from the device.

Referring to the drawing, an outer cylindrical casing 1 is shown provided with a removable lid 2 and carrying in its bottom a boiler 3. Below the boiler the casing is provided with supporting legs 4 and aperture 5 in order that a gas burner may be placed in position below the boiler if desired, although it is intended that with small sizes the alternative method of use of placing the same over an opening in a gas or coal stove be resorted to. The function of the boiler is to provide hot water under pressure to rotate sprinklers 6 and 7 located respectively above and below a wire container 8. This container has supporting legs 9 resting on the upper surface of the boiler.

Tubes 10 and 11 extending horizontally from the body of valve 12 conduct the hot water to the sprinklers. The sprinkler 6 is provided with a hinged joint 13 connecting its inlet tube 14 with the vertical portion 15 of the tube 11. The joint 13 permits the sprinkler 6 to be swung in a horizontal plane away from above the basket 8. The valve 12 at its inlet side communicates with a vertical tube 16 projecting downwardly into the boiler and being provided at its lower end with a screen or strainer 17. The valve 12 opens against the action of a spring 18 when the pressure in the boiler arrives at the point determined by the strength of the spring. Water may be supplied to the boiler by pouring it in the upper part of the apparatus, and then opening the valve 19 after which the valve is again reseated. The upper cleaning compartment is drained by means of a comparatively large faucet 20 which is also serviceable for reducing the pressure in the cleaning compartment due to the hot water flowing therein.

Where hot water under sufficient pressure is available independent of the boiler 3, connection to the sprinklers may be made through the laterally projecting pipe 21 which is normally closed by the cock 22 and the boiler with its valves be dispensed with.

In the operation of the device the boiler is first fed by opening valve 19 and pouring therethrough the desired quantity of water. This valve is then closed and the articles to be sterilized and cleaned are placed in the basket 8, this basket being provided with suitable shelves and spacer wires. The sprinkler 6 is then rocked back to its normal position above the basket and the lid 2 is replaced. When sufficient pressure is attained in the boiler to overcome the action of spring 18, the valve 12 opens, thus permitting the hot water to flow at the desired pressure to the sprinklers 6 and 7, these being

caused to rotate in any customary manner, as by vanes 23 centrally located therein. In this manner numerous fine jets of hot water are thrown downwardly and upwardly by the rotating sprinklers, and consequently reach the articles in the basket from many different directions.

I claim:

1. A washing apparatus comprising a receptacle having an upper cleaning compartment containing a nozzle, a boiler located in the lower part of said receptacle and having an outlet communicating with said nozzle, said boiler being adapted to contain fluid under pressure for discharge through said outlet and nozzle into said compartment, a valve controlling said outlet, and means for normally holding said valve in its closed position until the pressure of the water in said boiler reaches a predetermined amount.

2. A washing apparatus comprising a receptacle having an upper cleaning compartment containing a rotatable nozzle, a boiler located in the lower part of said receptacle, a pipe extending into said boiler and communicating with said nozzle, said boiler being adapted to contain fluid under pressure for discharge through said pipe and nozzle into said compartment, the inlet of said pipe being located below the normal level of the fluid in said boiler, a valve located in said pipe, and means for normally holding said valve in its closed position until the pressure of the water in said boiler reaches a predetermined amount.

3. A washing apparatus comprising a receptacle having an upper cleaning compartment containing a rotatable nozzle, a boiler located in the lower part of said receptacle and having an outlet communicating with said nozzle, said boiler being adapted to contain fluid under pressure for discharge through said outlet and nozzle into said compartment, a valve controlling said outlet, and means for normally holding said valve in its closed position until the pressure of the water in said boiler reaches a predetermined amount, the top of said boiler forming the bottom of said cleaning compartment.

Signed at Chicago this 30th day of Sept., 1920.

THEODORE H. FRETER.