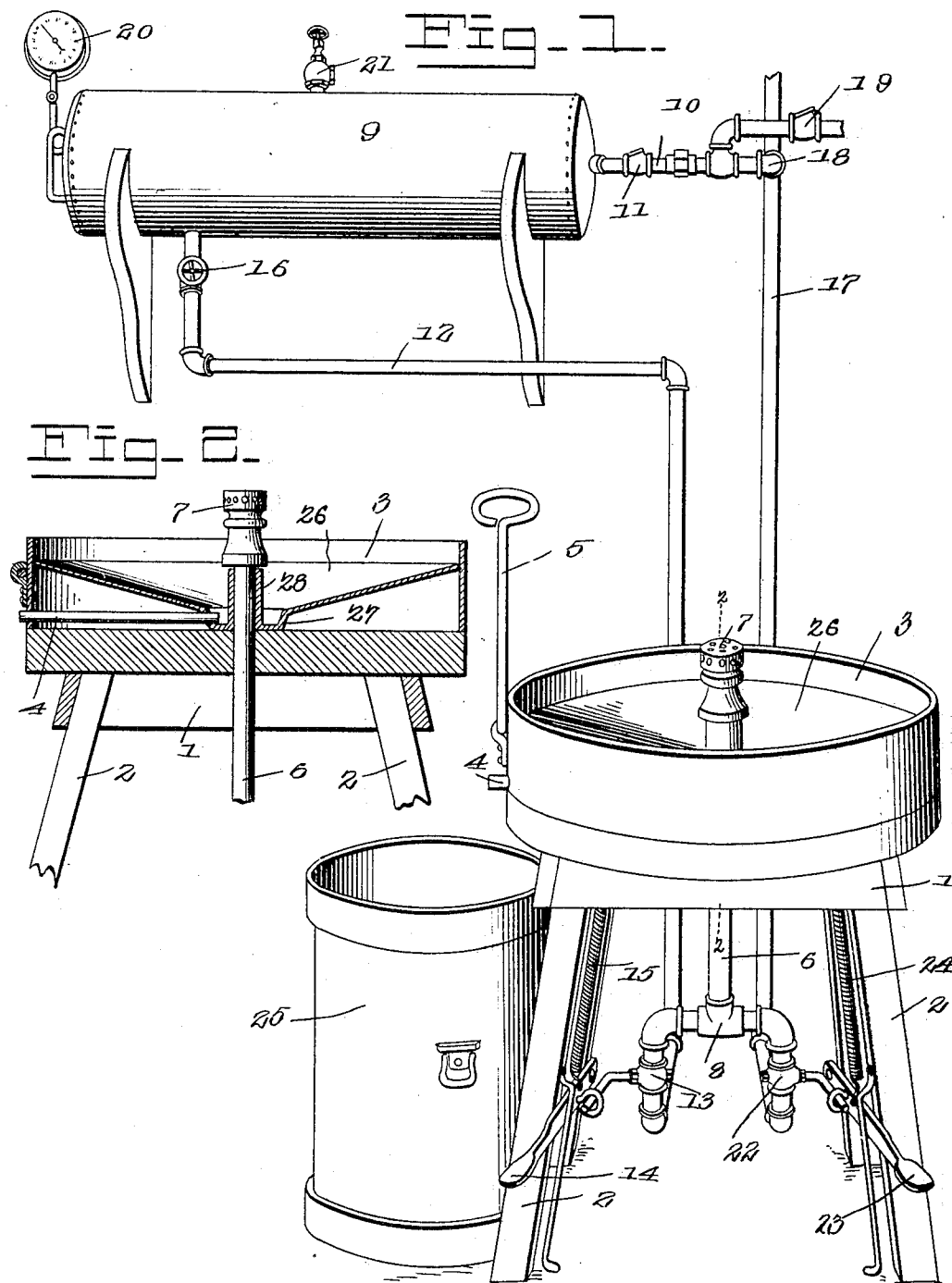


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W. F. STUBBS.
CAN WASHING APPARATUS.
APPLICATION FILED AUG. 30, 1904.



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UNITED STATES PATENT OFFICE.

WILLIAM F. STUBBS, OF WINFIELD, KANSAS.

CAN-WASHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 781,692, dated February 7, 1905.

Application filed August 30, 1904. Serial No. 222,733.

To all whom it may concern:

Be it known that I, WILLIAM F. STUBBS, a citizen of the United States, residing at Winfield, in the county of Cowley and State of Kansas, have invented a new and useful Can-Washing Apparatus, of which the following is a specification.

This invention relates to washing apparatus, and has for its object to provide for simply and effectually washing and sterilizing milk-cans and other receptacles and in this connection to effect a saving of the accumulation of cream and milk which are ordinarily lost with the wash-water in the usual manner of washing milk-cans.

It is furthermore designed to embody the invention in a compact and readily-manipulated apparatus wherein the cans to be cleansed may be conveniently subjected to the action of the wash-water, so as to initially rinse the accumulation of cream therefrom into a receptacle, from which the cream may be subsequently recovered by a centrifugal cream-separator, and then to complete the cleansing and sterilizing of the can.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit of sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a can-washing apparatus constructed in accordance with the present invention. Fig. 2 is a detail sectional view on the line 2 2 of Fig. 1.

Like characters of reference designate corresponding parts in each figure of the drawings.

In carrying out the present invention there is provided a table or stand consisting of a stationary top 1, supported upon suitable legs 2. Upon the top of this table is a circular pan 3, mounted to rotate and provided at one side with a discharge-spout 4 and also having

a suitable handle 5 for convenience in manually rotating the pan. An upright pipe 6 centrally pierces the top of the table or stand and also passes through the bottom of the pan 3, so as to form a journal therefor, and upon the upper end of this pipe is a spray-nozzle 7, rising a suitable distance above the top edge of the pan. At the lower end of the pipe 6 is a T-coupling 8, designed for connection with a water-supply and a steam-supply.

Water is supplied to the nozzle 7 from an elevated tank 9, to which water is fed by a pipe 10, which includes a check-valve 11, adjacent the tank. A pipe 12 leads from the bottom of the tank 9 to one end of the T-coupling 8 and includes a controlling-valve 13, located beneath the top of the table or stand. This valve is controlled by means of a foot-lever 14, terminally fulcrumed upon one of the legs of the table or stand and normally held in an elevated position by a spring 15, connected to the lever and the top of the stand, whereby after the lever has been depressed to open the valve and the foot of the operator is removed from the lever the latter will be automatically returned to its normal position under the influence of the spring 15, so as to close the valve and shut off the supply of water. A suitable cut-off valve 16 is provided near the upper end of the pipe 12, so as to close the latter when it is desired to uncouple the stand portion of the apparatus from the water-tank.

To heat the water within the tank 9, there is a steam-pipe 17, connected with a suitable source of steam (not shown) and also connected to the other end of the T-coupling 8, said steam-pipe 17 having an elbow 18 communicating with the pipe 10, so as to supply steam to the water-tank, and thereby heat the water in the tank and also maintain a pressure thereon. The water-pipe 10 is provided with a check-valve 19 in rear of the point of connection between the steam-pipe 17 and the combined steam and water pipe 10. A suitable gage 20 is connected to the water-tank, and a blow-off valve 21 is also provided in the top of the tank.

Adjacent the point of connection between the pipe 17 and the coupling 8 of the pipe 6

there is a controlling-valve 22, which is connected to a foot-lever 23, fulcrumed upon the stand, with a spring 24 connected to the top of the stand and the lever for yieldably maintaining the latter in an elevated position with the valve 22 closed.

In using the present apparatus the can to be cleansed is inverted and placed mouth downward within the pan 3, and then the lever 14 is manipulated to open the valve 13 and admit water under pressure from the tank 9 to the nozzle 7, which sprays water against the inner walls of the can, thereby removing accumulations of milk and cream, which run out with the rinse-water through the spout 4 into a suitable receptacle 25. After the can has been rinsed sufficiently to remove the accumulations of milk and cream the pan is rotated, by means of the handle 5, so as to withdraw the spout 4 from the receptacle, as it is not desirable to discharge more water than is absolutely necessary into the receptacle 25. This initial step in the operation is very important by reason of the fact that the accumulations of milk and cream which are ordinarily lost with the wash-water are collected in the receptacle 25 and may be eventually recovered by submitting the wash-water to the action of a centrifugal machine. After the initial rinsing has been completed the water is permitted to spray into the can until it has been thoroughly cleansed, after which the operator removes his foot from the lever 14, so as to permit of the valve 13 being closed by the action of the spring 15, and then the foot-lever 23 is depressed to open the valve 22 and supply steam to the nozzle 7, thereby to effectually sterilize the can and complete the cleansing operation. It will here be explained that the water in the tank 9 is under steam-pressure, and therefore escapes through the nozzle 7 with considerable force, so as to effectually wash the accumulations of milk and cream from the interior of the can, and at the same time the water is maintained in a heated condition by the steam.

A very important feature of the present apparatus resides in the arrangement of the foot-levers 14 and 23, which may be conveniently manipulated without requiring the operator to shift his position, and the hands of the operator are free for rotatably shifting the pan 3 after the initial rinsing step. If desired, the pan may be manually rotated during the cleansing operation without interfering with any of the parts of the apparatus.

When the pan 3 has been shifted to withdraw the spout 4 from the receptacle 25, there should be a trough or the like (not shown) arranged to receive the discharge from the spout and carry the same off to a sewer, or any preferred manner of conducting the wash-water away from the apparatus may be employed.

It is preferred to have the pan 3 consist of an upstanding annular rim and a dished or inverted conical bottom 26, terminating at its lowermost and central point in a depression or socket 27, substantially flush with the bottom of the rim, so as to rest upon the top of the table, thereby to lead the wash-water to the depression or socket 27, from which it is carried off by the spout 41, piercing the socket and the rim of the pan. A suitable sleeve 28 rises from the bottom of the pan and embraces the pipe 6, so as to form an extended bearing for the pan.

Having fully described the invention, what is claimed is—

1. A washing apparatus comprising a pan having an open top and an outlet-spout, and a spray-nozzle within the pan at the axis thereof, the pan being shiftable to withdraw the outlet-spout from its initial position.

2. A washing apparatus comprising a rotatable pan having an outlet-spout projected at one side thereof, and a spray-nozzle at the axis of the pan.

3. A washing apparatus comprising a rotatable pan having an open top and an outlet-spout, a spray - nozzle within the pan at the axis thereof, and a handle to rotate the pan and thereby shift the outlet-spout from its initial position.

4. A washing apparatus comprising a stand, a spray-nozzle piercing the stand, a supply-pipe connected to the nozzle, and a rotatable pan supported upon the stand and mounted upon the nozzle as an axis, said pan being provided with a laterally-directed discharge-spout.

5. In an apparatus of the class described, the combination with a stand, of a pan supported thereby, a nozzle in the pan, a pipe piercing the bottom of the stand and connected to the nozzle, water and steam pipes connected to the first-mentioned pipe, and controlling-valves for the water and steam pipes.

6. In an apparatus of the class described, the combination with a stand, of a pan supported thereon, a nozzle within the pan, a service-pipe piercing the bottom of the stand and connected to the nozzle, a water-pipe and a steam-pipe connected to the service-pipe, controlling-valves included in the water and steam pipes, foot-levers fulcrumed upon the stand and connected to the respective valves, and springs connected to the levers to yieldably maintain the valves closed.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. STUBBS.

Witnesses:

G. B. CRICHTON,
DELMER SPANGLER.