251-144

Draftsman

Aug. 25, 1925. 1,550,668

M. BLOCK

VALVE FOR MILK PASTEURIZER TANKS

Filed March 31, 1923

Fig. 1.

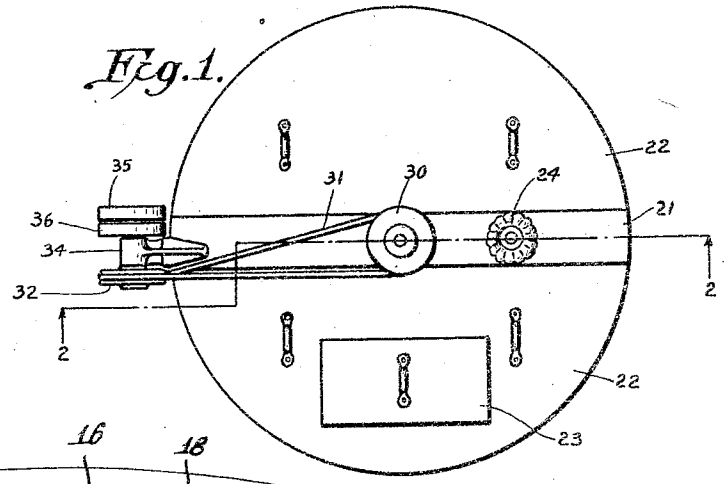


Fig. 4.

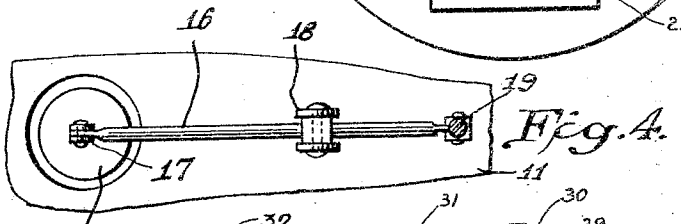


Fig. 2.

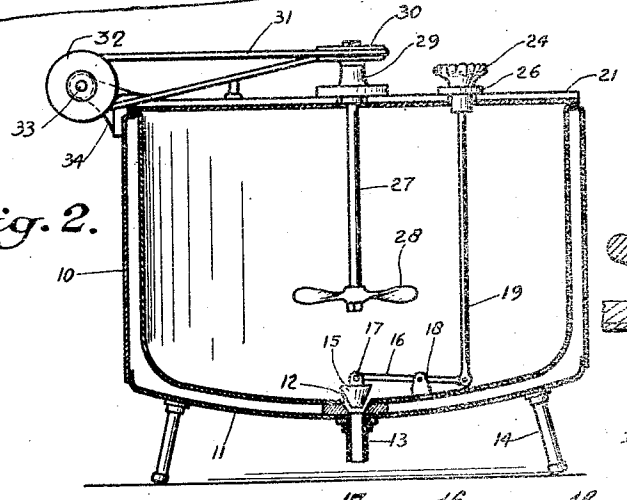
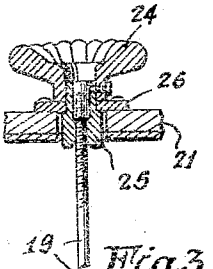
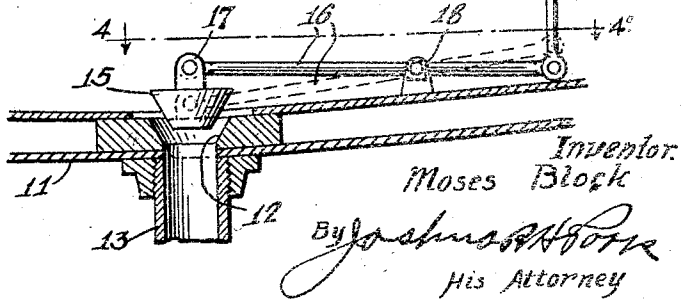


Fig. 3.





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UNITED STATES PATENT OFFICE.

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VALVE FOR MILK-PASTEURIZER TANKS.

Application filed March 31, 1923. Serial No. 629,226.

To all whom it may concern:

Be it known that I, MOSES BLOCK, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Valves for Milk-Pasteurizer Tanks, of which the following is a specification.

My invention relates to new and useful improvements in valves for milk Pasteurizer tanks, and has for its main object the provision of an improved drain valve for closing the drain channel at the inner surface of the Pasteurizer.

In the Pasteurizers now on the market and in general use, the drain valve is located beneath the bottom of the tank, and frequently in the drain pipe, a distance from the drain opening, in order to permit convenient manipulation of said valve. This permits a quantity of milk to remain standing in the drain opening and in the portion of the drain pipe above the valve without being properly Pasteurized, which milk is then drawn off and mixed with the Pasteurized milk drawn from the tank.

It is my object to provide valve means for closing the drain opening directly at the inner surface of the tank, thus preventing any milk from standing in either the drain opening, or the drain pipe, and remaining un-Pasteurized.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1, is a plan view of one form of my invention,

Fig. 2, is a vertical sectional view thereof, taken on line 2—2 of Fig. 1,

Fig. 3, is an enlarged sectional view of the valve construction and its operating mechanism, and

Fig. 4, is a plan view in section, taken along line 4—4 of Fig. 3.

In Figs. 1 and 2 I have shown a Pasteurizer comprising a tank 10 having a dished or bowl-shaped bottom 11 provided with a discharge channel including a conical drain opening or valve seat 12 communicating with a drain pipe 13, and suitable supporting legs 14 are mounted beneath said bottom.

A conical valve 15 is provided for said valve seat and forms a firm closure at the inner surface of the tank. A lever 16 is pivoted with one end to a pair of lugs 17 on said valve, and is pivoted with an intermediate portion to a fulcrum 18 mounted in said tank and with the free end to the lower end of a vertical rod 19, which extends to the exterior of the Pasteurizer.

The top of the tank comprises a fixed cross beam 21 and two removable semi-circular covers 22, one of which is provided with an opening for insertion of a suitable strainer, and with a lid or cover 23 for said opening. A thumb nut 24 is mounted in said cross beam by means of a separable shank 25 and a plate 26 fastened to said beam. Threads in said shank 25 engage the threaded upper end of rod 19, and by turning said nut 24 in the proper direction, the valve may be opened or closed.

In place of the usual long vibrating operating shaft, extending to the belt wheels near the ceiling, heretofore generally used with belt driven Pasteurizers, I use a short operating shaft 27, having the usual paddles 28 at its lower end and extending through a hub 29 supported on the cross beam 21, a pulley 30 being fastened on the upper end of said shaft and bearing on said hub. A belt 31 connects said pulley 30 with a similar pulley 32 fastened to one end of a stub shaft 33 rotatably mounted in a bracket 34 fastened to the cross beam 21, at the outer edge of the tank. A loose pulley 35 and a tight pulley 36 are mounted on the other end of said stub shaft permitting a suitable drive belt (not shown), which is actuated by the usual pulleys near the ceiling, to be shifted from one to the other of said pulleys to either operate the shaft and paddles or leave them inoperative.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A Pasteurizer comprising a tank having a dished bottom; a conical valve seat in the center of said tank bottom; a conical valve for said seat and having its top substantially even with the inner side of said tank bottom; a lever connected with one end to said valve and fulcrumed with an intermediate portion in said tank; an operating rod pivoted to and extending from the upper end of said lever up through said tank; and means for operating said rod and valve.

2. A Pasteurizer comprising a tank having a dished bottom; a conical valve seat in the lowest part of said bottom; a conical valve in said seat and having its top substantially even with the inside of said bottom; a lever connected to said valve and fulcrumed on the tank bottom; a rod extending from said lever and having the upper end extending through an opening in the top of said tank; and a member with a shank held rotatably in position in said top for engaging and operating said rod and valve.

3. A Pasteurizer comprising a tank having a dished bottom; a conical valve seat in the center of said tank bottom; a conical valve for said seat and closely fitting on the inner side of said tank bottom; a lever connected to said valve and fulcrumed at the intermediate portion in said tank; an operating rod pivoted to and extending vertically from one end of said lever and having a threaded end extending through an opening in the top of said tank, outward from the center of said top; a plate mounted on said top opening; and a thumb nut with a shank held rotatably in position in said plate and opening and engaging said rod for operating said valve.

In testimony whereof I have signed my name to this specification.

MOSES BLOCK.