

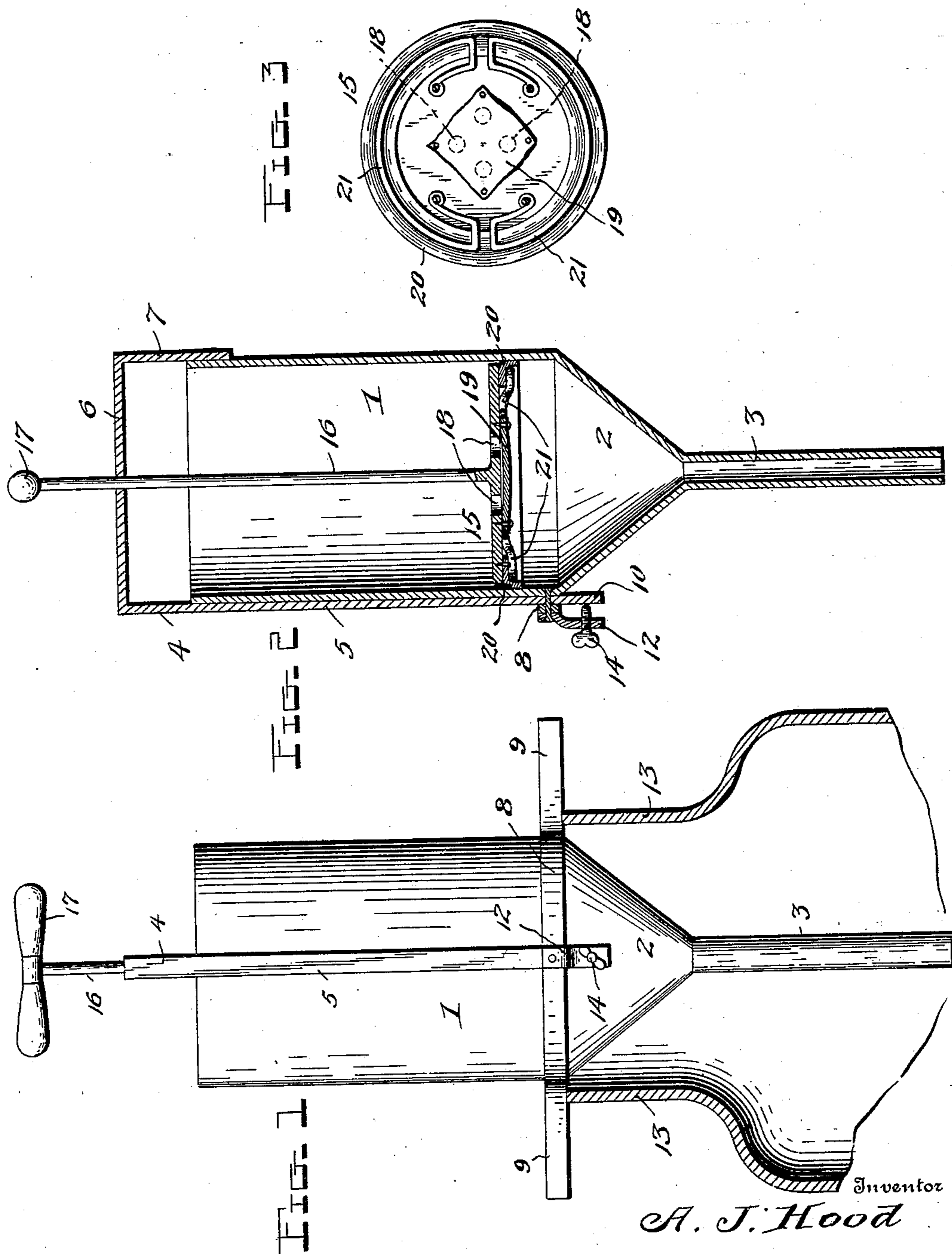
No. 723,389.

PATENTED MAR. 24, 1903.

A. J. HOOD.
MILK AERATOR.

APPLICATION FILED JUNE 30, 1902.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

ALEXANDER J. HOOD, OF MUSCODA, WISCONSIN.

MILK-AERATOR.

SPECIFICATION forming part of Letters Patent No. 723,389, dated March 24, 1903.

Application filed June 30, 1902. Serial No. 113,731. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER J. HOOD, a citizen of the United States, residing at Muscoda, in the county of Grant and State of Wisconsin, have invented certain new and useful Improvements in Milk-Aerators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to aerators for purifying milk.

The object of the invention is to provide an aerator or pump which may be quickly attached to or detached from milk-cans to force air through the milk, thereby driving out all obnoxious gases and impurities.

With the above and other objects in view, which will readily appear as the nature of the invention is better understood, said invention consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device, showing it applied to a milk-can, the latter being shown in section. Fig. 2 is a longitudinal vertical section through the aerator. Fig. 3 is a bottom plan view of the piston or plunger.

In the drawings, 1 denotes a cylinder, preferably formed of sheet metal, open at its upper end and closed at its lower end by a conical or funnel-shaped bottom 2, from which extends a tube or spout 3.

4 denotes a supporting-frame consisting of the upright or standard 5, formed at its upper end with a right-angularly-bent cross bar or brace 6, which bar is bent downwardly to form a vertical arm 7, which extends parallel with the standard 5 and between which and the said standard the cylinder is adapted to be fixed. Near the lower end of the standard 5 is fixed a horizontally-disposed curved arm 8, the ends of which are bent laterally, as shown at 9. The arm 8 is soldered or otherwise secured to the lower end of the cylinder, and the laterally-bent ends are adapted to support the cylinder upon the milk-can.

10 denotes a clamp formed by the lower end of the standard 5 and a plate 12, secured

thereto so as to form a space between itself and the said lower end of the standard 5, into which space is inserted the upper end of the milk-can 13.

14 denotes a thumb-screw which passes through a threaded opening in the plate 12 and is adapted to impinge upon the side of the can 13 to hold the frame and cylinder in place.

15 denotes a piston arranged in the cylinder 1, and 16 denotes the piston-rod, which passes upwardly through a guide-opening formed in the cross-bar 6 and is provided on its upper end with an operating-handle 17. The piston 15 has formed therein a suitable number of air-inlet holes 18, which are covered on the lower side of the piston by a flap or valve 19, formed of thin rubber, leather, or other flexible material and is preferably rectangular in shape and fastened at its corners to the under side of the piston, so as to allow a slight fullness or looseness, which when the piston is being drawn out will be forced away from the holes and allow air to enter the pump-cylinder 1, and upon a reverse or inward movement of the piston the valve will be tightly forced against the cylinder and close the holes therein and force the air out of the cylinder through the tube or spout 3, from the outlet of which it passes through the milk, carrying off all impurities.

20 denotes a packing-ring of leather, rubber, or other suitable material, which is placed around the piston and which is somewhat wider than the piston.

21 denotes semicircular-shaped springs which are arranged around the inside of the packing 20, the ends of said springs being turned inwardly and connected to the cylinder. The tendency of the springs is to force the packing-ring outwardly against the inner sides of the cylinder, making an air-tight connection therewith at all times.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, mode of operation, and advantages of my improved aerator will be readily apparent without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

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

The combination with a pump having a reciprocating piston and a piston-rod, of a supporting-frame therefor, comprising an upright or standard having at its upper end a
10 right-angularly-bent arm forming a brace or guide whereby said piston-rod is braced and guided, a horizontally-disposed curved arm fixed to the lower portion of said standard

and having laterally-bent ends, whereby the frame and cylinder are supported upon the
15 top of a can or other receptacle, and a clamp formed on the lower end of said standard whereby said frame is clamped to said receptacle, substantially as described.

In testimony whereof I have hereunto set
20 my hand in presence of two subscribing witnesses.

ALEXANDER J. HOOD.

Witnesses:

R. B. MCINTYRE,

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