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W. B. KELLOGG

CREAM REMOVER

Filed Oct. 9, 1924

Fig. 1.

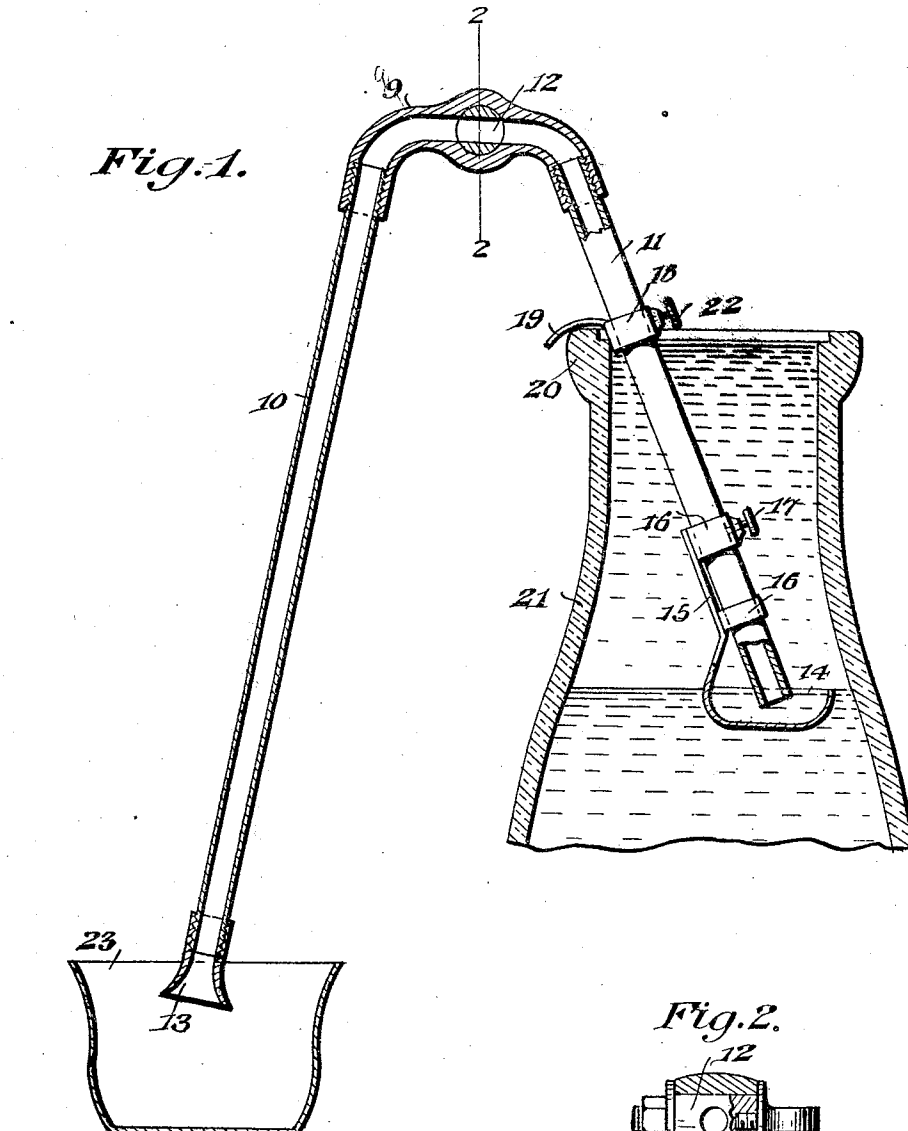


Fig. 2.

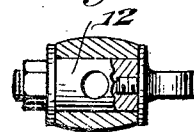
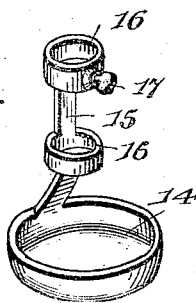


Fig. 3.



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CREAM REMOVER.

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This invention relates to devices for removing cream from the milk in bottles, and for like purposes, and has for one of its objects to improve and simplify the construction, and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character which may be quickly adjusted to adapt it to the depth of the cream above the body of the milk in the container, and without detaching any of the parts.

Another object of this invention is to provide a device of this character having means for facilitating the charging of the device preliminary to its siphoning action.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention—

Figure 1 is a vertical sectional elevation of the improved device together with a section of a portion of a milk bottle and the receiver for the removed cream.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a detached perspective view of the guard cup attached to the intake end of the siphon tube.

The improved device includes a siphon tube formed of a relatively long leg 10 and short leg 11, with a cut off valve at the juncture of the two legs, the valve having a turning handle to enable it to be controlled from the outside.

The valve is preferably constructed of a main tubular body portion 9 having oppositely directed downturned ends 9^a, as shown in which ends of which the tubular members 10 and 11 are secured, the body 9 is thickened at its central portion and formed to provide a transverse valve seat to receive a plug 12 valve of the usual construction. By this means the parts are easily separable for cleansing, when required.

Attached to the outlet end of the longer leg 10 is an outwardly flaring member 13 to facilitate the charging of the siphon tube preliminary to its operation, as hereafter explained.

A fender element in the form of a cup

like member 14 is disposed beneath the intake end of the shorter leg 11 with its rim above the lower line of the leg, as shown.

Extending from the cup like member 14 is a holding arm 15 bent intermediate its ends to set up the upper and lower portions 15' and 15''. The portion 15' is directed inwardly over the top of the cup while the portion 15'' forms an obtuse angle therewith and is directed outwardly over the top of the cup. Formed upon the portion 15'' of the arm 15 is a plurality of bands 16 slidably engageable over the leg 11 to detachably and adjacently secure the cup 14 upon the leg. These bands may be designed to frictionally grip the leg or may be provided with the securing set screw, as indicated by the numeral 17.

Slidably engaging the leg 11 is another band 18 having a lateral hook 19 to bear upon the rim 20 of the milk bottle, a portion of the body of the bottle being represented at 21.

The band 18 may engage the leg 11 with sufficient force to hold the band in place by friction only, or a clamp screw, represented at 22, may be employed to hold the band in adjusted position.

The line between the cream and milk in glass milk bottles is clearly visible from the exterior, and in using the improved device, it is inverted before being applied to the bottle and the valve 12 opened and both the legs filled with water preferably inserted through the flaring member 13, the latter facilitating the insertion of the charging water.

The valve is then closed and the device turned with ends of the tube downward, both legs being thus full of water and the water held therein by atmospheric pressure. The shorter leg 11 with the cup member 14 attached is then disposed in the bottle with the upper edge of the cup about level with the lower line of the cream, as represented in Figure 1 and the holder 19 set in position. The valve 12 is then opened when the siphonic action will cause the water to flow from the discharge end 13 and causing the cream to follow the water, and when the cream appears at the discharge end 13, the receptacle 23 is disposed in position to receive the cream, which will continue to flow so long as any cream remains above the cup member 14. If however a part of the cream only is

to be drawn off, the flow can be instantly stopped by closing the valve, as will be obvious.

By this simple means all or any desired portion of the cream may be quickly removed without disturbing the body of the milk, or without removing a part of the milk or leaving a part of the cream in the bottle, or mixing a part of the cream with the milk, which is liable to happen, if the cream is removed by tilting the bottle in the usual way.

The improved device is simple in construction, can be inexpensively manufactured and readily cleansed and rendered sanitary.

The parts 10 and 11 may be formed integral with the casing for the valve 12, or united thereto by screw threaded joints, as illustrated in Figure 1, or the parts electric welded or otherwise united.

The device may be very cheaply constructed of tinned steel or iron, with the parts united by soldering brazing or the like, or of aluminum, copper, brass, or other metallic compounds, or the parts plated with silver or other metal, as preferred.

The preferred embodiment of the invention is disclosed in the drawings and set forth in the specification, but it will be understood that the modifications within the scope of the claimed invention may be made in the construction without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described the invention what is claimed is:

1. In a siphon, a fender element comprising a relatively shallow cup for coaction with and to surround the intake end of a siphon tube in spaced relation throughout with respect thereto and of materially greater diameter than the diameter of such intake end, a narrow stationary arm for vertically suspending said cup with respect to such intake end and formed of an upper

and a lower leg angularly disposed with respect to each other, said lower leg integral with and extending upwardly and inwardly from the top edge of said cup at an inclination, said upper leg extending at a rearward inclination throughout with respect to the upper end of the lower leg and with the median line of the upper leg lying in a plane including also the axis of the cup and adapted to be arranged in parallelism with respect to the siphon tube at a point removed from the intake end thereof, and a pair of spaced bands integral with and projecting from the inner face of the upper leg for connecting it to said tube.

2. In a siphon, a fender element comprising a relatively shallow cup for coaction with and to surround the intake end of a siphon tube in spaced relation throughout with respect thereto and of materially greater diameter than the diameter of such intake end, a narrow stationary arm for vertically suspending said cup with respect to such intake end and formed of an upper and a lower leg angularly disposed with respect to each other, said lower leg integral with and extending upwardly and inwardly from the top edge of said cup at an inclination, said upper leg extending at a rearward inclination throughout with respect to the upper end of the lower leg and with the median line of the upper leg lying in a plane including also the axis of the cup and adapted to be arranged in parallelism with respect to the siphon tube at a point removed from the intake end thereof, a pair of spaced bands integral with and projecting from the inner face of the upper leg for connecting it to said tube, said upper leg of greater length than said lower leg, and means carried by one of said bands for detachably securing it to the tube to maintain the cup stationary.

In testimony whereof, I affix my signature hereto.

WALTER B. KELLOGG.