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MILKING CUP

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Fig.1.

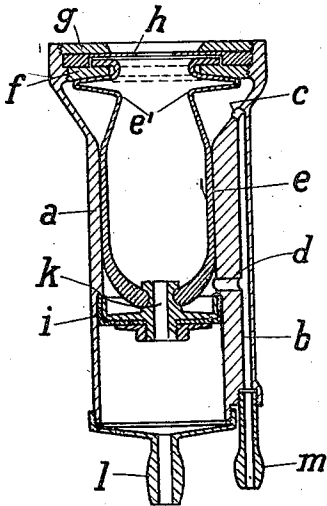
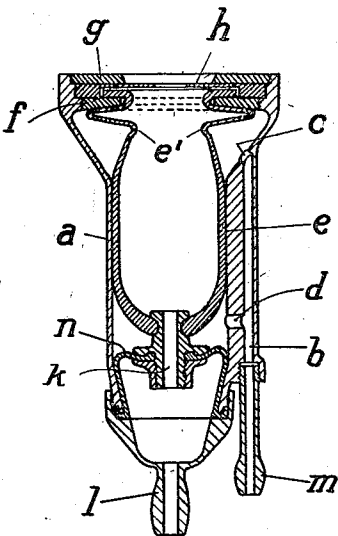


Fig.2.



Witnesses:

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MILKING CUP.

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It is generally admitted that up to the present the only rational and efficacious method is milking by hand which consists in the pressure of the index finger on the base of the teat accompanied by the drawing action from the top to the base of the teat, then of the major finger in continuing the drawing and so on for the other fingers. The thumb exerts only a counter pressure to that of the other fingers and in general its utility is nil, the said counter pressure being made by the palm of the hand.

The present invention has for its object a milking cup comprising two air admission ports alternating with a vacuum and an india rubber sheath constituting the suction element, the upper part of the suction element being folded and its thickness lessened in order to produce a great pressure at this point. The lower part receives a mobile device under the lower compressed air admission port and formed together with the wall of the cup in such manner that the device will be driven back at each push of the compressed air causing also the elongation of the suction element. The provision of a shoulder on this may oppose very strongly the reascension.

The movable device may comprise a piston travelling in the lower part of the cup or this piston may be replaced by a flexible diaphragm forming a joint.

The compressed air exerts its pressure at the base of the suction element in which the milk is descending. It is thus separated from the milk in the upper part, that is to say, in the teat. The piston or the flexible diaphragm recedes at the same time that the compressed air supplied to the upper part causes an elongation of the suction element. This first movement imitates thus the index finger accompanied by the drawing of the hand. But the suction element in making its elongation departs a little from the wall of the cup. The compressed air will then continue its pressure above and below seconded by the movement of the piston in the same direction. This imitates the pressure of the second or major finger accompanied by its drawing. This will continue until the end of the piston stroke.

These new cups permit milking in a rapid and efficient manner, without taking count

of the resistance that the beast offers to milking which exists in no milking machine up to the present.

In the accompanying drawings are represented by way of example two constructional forms of the present invention.

Figure 1 is a central section of the cup, the movable device being constituted by a piston whereas

Figure 2 which represents a similar section includes a flexible diaphragm.

The cup *a* is provided with a compressed air duct *b* having two orifices *c* and *d* of which the first is disposed at the top of the cup and the second at the base of an india rubber sleeve *e* constituting the suction element.

As is clearly shown in the drawings the suction element *e* is folded at its upper end and its breadth narrowed. The suction element is held between two rings *f* and *g* to prevent entry of air between the cup and the suction element. These two rings are screwed to the top of the cup.

An india rubber washer *h* is also provided between the two rings *f* and *g* for rendering the suction element air-tight.

At its base the suction element *e* provides an exit orifice in which is disposed the head of a piston *i*. The piston is fitted in the body of the cup *a* and provided with a cylinder *k*.

According to Figure 2 the piston is replaced by a flexible diaphragm *n* which is joined to the interior wall of the cup.

The cup is provided at its base with a nipple *l* over which is fitted a tube for removing the milk. The compressed air channel carries similarly a nipple *m* to receive a tube communicating with a pulsator.

This invention realizes a rational function and is of an entirely new conception. It is described above purely by way of example and it is to be understood that certain modifications may be made appertaining to the details without departing from its spirit.

I claim:—

1. A milking cup comprising a casing, means for admitting compressed air at two points in said casing, a flexible suction element disposed within said casing and a movable device operating under the action of

compressed air for elongating the suction element.

2. A milking cup comprising a hollow casing having upper and lower internal ports, a flexible cylindrical suction element folded and of reduced diameter at its upper end disposed within said casing, a movable

device connected to an outlet in the base of said suction element and means for placing the interior of said casing alternately under pressure and vacuum. 10

Brussels, 29th December, 1925.

FRANZ REMY