No. 842,086. PATENTED JAN. 22, 1907.

G. W. DIXON.

LIQUID SEPARATOR.

APPLICATION FILED JAN. 20, 1906.

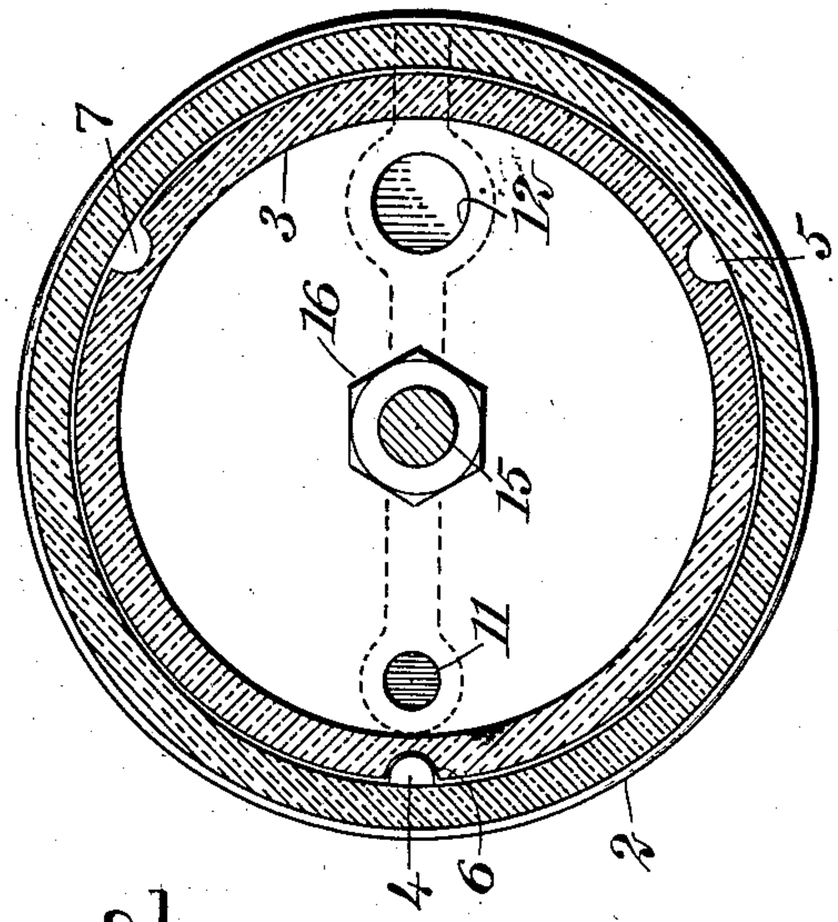

FIG. 2

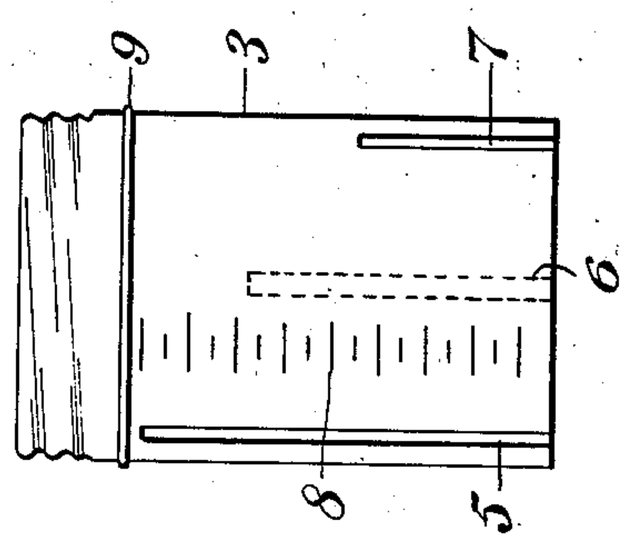

FIG. 3

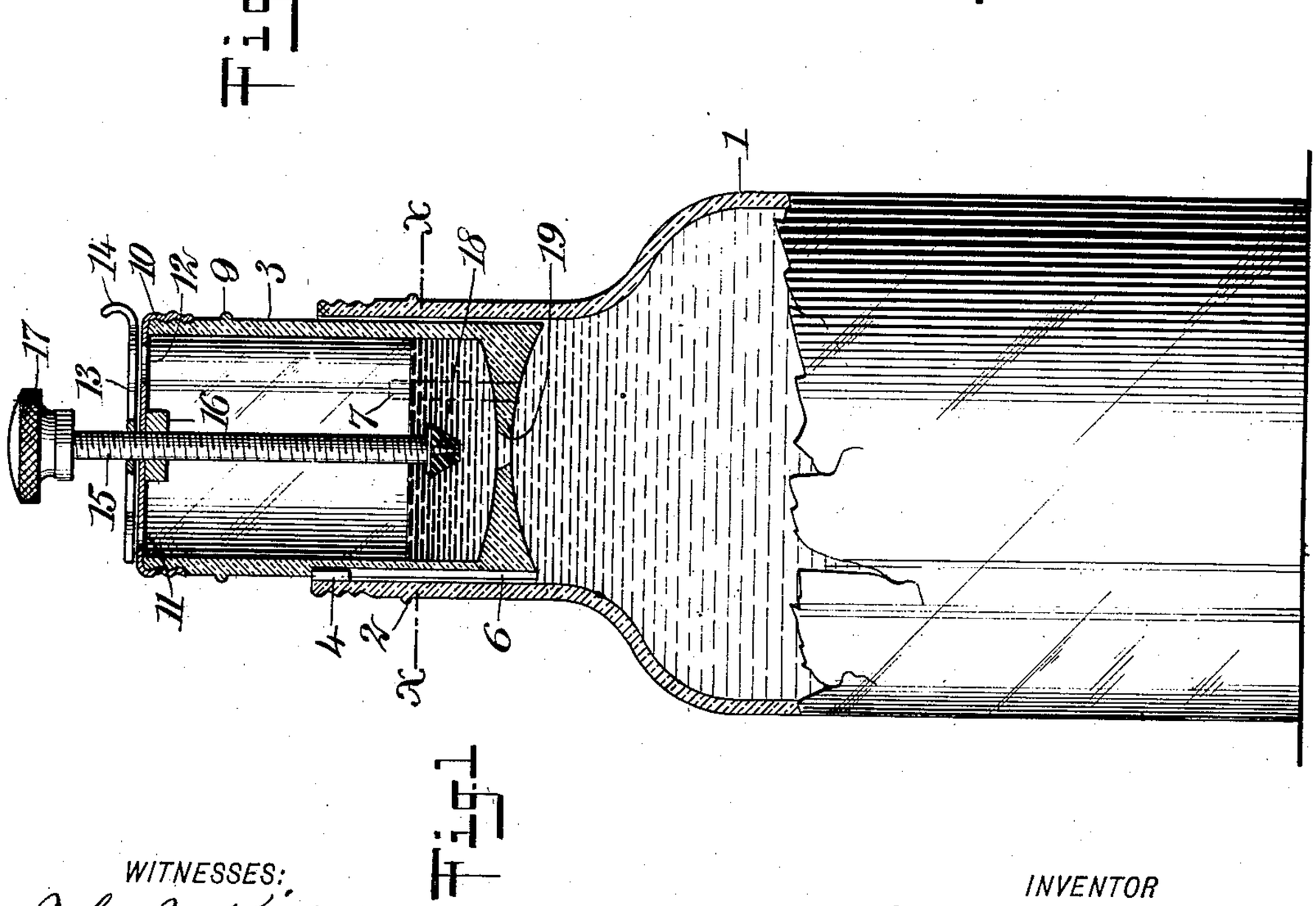

FIG. 1

WITNESSES:

John J. Kuttler

C. R. Ferguson

INVENTOR

George W. Dixon

BY

Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE WILLIAM DIXON, OF CHICAGO, ILLINOIS.

LIQUID-SEPARATOR.

No. 842,086. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed January 20, 1906. Serial No. 297,072.

To all whom it may concern:

Be it known that I, GEORGE WILLIAM DIXON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Liquid-Separator, of which the following is a full, clear, and exact description.

This invention relates to improvements in devices for the separation of light matter from heavy liquids—such as cream, oils, fats, grease, and the like—the object being to provide a simple device particularly adapted for household use in separating cream from milk in bottles or other receptacles.

I will describe a liquid-separator embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a portion of a bottle with a separator embodying my invention in connection therewith. Fig. 2 is a section on the line *x x* of Fig. 1, and Fig. 3 is a side view of the separator with the cover and parts carried thereby removed.

Referring to the drawings, 1 designates a bottle for containing milk or other liquid and having on its neck portion an annular bead 2 to indicate the height the liquid should reach in the receptacle. The receiver for cream or other light material consists of a receiver 3, made of glass or other suitable material, and adapted to be engaged in the neck of the bottle or the like.

The interior of the bottle-neck at the top is provided with a lug 4 for engaging in any one of the vertical channels 5, 6, or 7, formed in the exterior of the receiver, these channels being of different lengths, so that the receiver may be inserted and held in the bottle-neck at any desired depth, depending upon the time desired for the separation of cream or the like from the heavy liquid. Also on the receiver is a scale 8, designed to indicate by inches or ounces the amount of cream in the receiver, thus ascertaining the richness or quality of the milk when the device is used for receiving cream. Also on the exterior of the receiver is an annular bead 9, which is designed to rest upon the upper end of a bottle-neck when the device is used in connection with a bottle not provided with the lug 4. Having screw-thread engagement with the upper end of the receiver is a cap 10 of suitable material—such, for instance, as aluminium—and this cap is provided with a vent 11 and an opening 12 for the pouring out of the cream or other material in the receiver. The vent 11 and opening 12 may be closed by a swinging plate 13, having a finger-piece 14 at one end. This plate 13 has swinging movement on a valve-rod 15, the said valve-rod being screw-threaded to engage in a nut 16, secured to the inner side of the cap.

The upper end of the rod 15 is provided with a knob 17, and at the lower end is a conical valve 18 for engaging in an opening 19 in the bottom of the receiver, the walls of said opening 19 being tapered to correspond to the shape of the valve. This valve may be of cork or other suitable material, and it will be noted that the bottom of the receiver is double concave, so that the cream or other light material will be directed from the sides of the bottle or container to the opening 19.

In the operation the receiver is to be placed in the bottle, as indicated in Fig. 1, and allowed to stand for any desired length of time, so that the cream or other light matter will pass into the receiver. When the operation is completed, the valve 18 is to be closed into the opening 19, when the receiver may be removed and the contents poured out.

By making the bottom double concave the cream will meet with no resistance and will drain to the last drop.

While I have indicated my invention as in connection with an ordinary milk-bottle or of a milk-bottle of the usual quart size, it is to be understood that the device may be made in different sizes for different sizes of liquid-containers.

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

1. The combination with a liquid-receptacle, of a receiver for light liquid adapted to fit in the mouth of the receptacle, coacting means between said receptacle and receiver for supporting the receiver, as it may be variously adjusted in the receptacle, the said receiver having an opening in the lower portion, and a valve for said opening.

2. The combination with a liquid-receptacle having a lug formed in its neck portion, of a receiver for cream or like material, adapted to engage in the neck, and having exterior channels for receiving said lug, the said chan-

nels being of different lengths, the said receiver having an opening in its bottom, and a valve for closing said opening.

3. The combination with a bottle or the like having a lug in its neck portion, of a receiver for light liquid, adapted to engage in the neck of the bottle, the said receiver having an opening in its bottom, and also having exterior channels, in any one of which said lug is designed to engage, the channels being of different lengths, a scale on the receiver, and a valve for closing the opening in the bottom of the receiver.

4. A separator comprising a receiver adapted to engage in the opening of a bottle or the like, the said receiver having a double concave bottom provided with an opening, a removable cap for the receiver, a nut secured to the inner side of said cap, a screw-rod engaged with said nut, a valve on the lower end of the rod for engaging in the bottom opening, the said cap having openings, a swinging plate for closing said openings, and an annular bead on the exterior of the receiver.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE WILLIAM DIXON.

Witnesses:
BELLE HOWARD,
E. HAMILTON.