(No Model.)

S. L. BRANDT.

MILK COOLER.

No. 533,343. Patented Jan. 29, 1895.

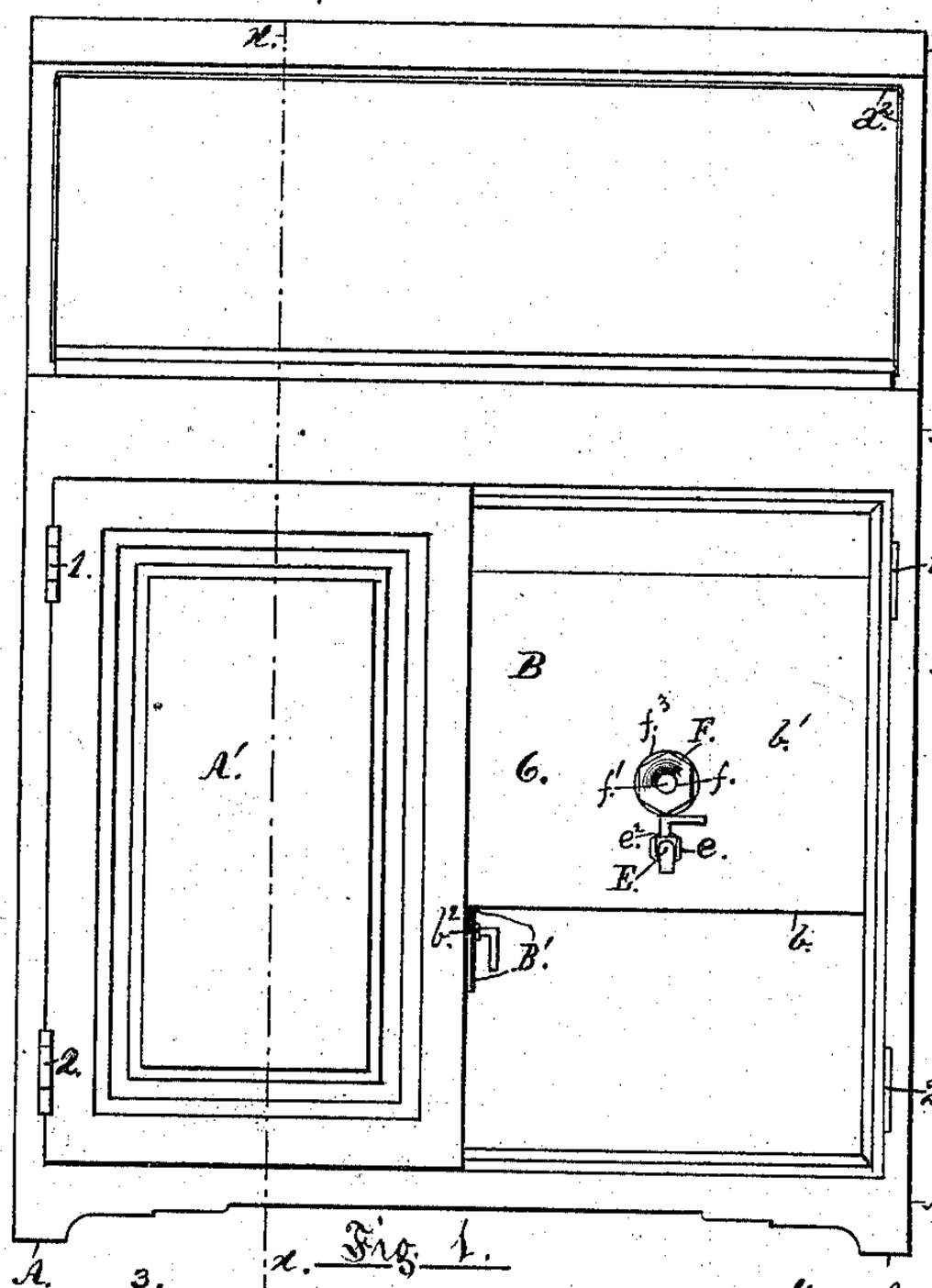

Fig. 1.

Fig. 2.

Fig. 3

Fig. 4.

Fig. 5.

Witnesses:

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SIMON L. BRANDT, OF MARIETTA, PENNSYLVANIA.

MILK-COOLER.

SPECIFICATION forming part of Letters Patent No. 533,343, dated January 29, 1895.

Application filed April 20, 1891. Renewed July 13, 1894. Serial No. 517,490. (No model.)

To all whom it may concern:

Be it known that I, SIMON L. BRANDT, of Marietta, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Cream-Drawing Appliances; and I do hereby 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.

My invention relates to improvements in cream drawing apparatus of that class in which a number of porcelain lined metallic cans or vessels to contain the milk for creaming are so arranged in a tank that they may be entirely surrounded by water or any other cooling liquid or substance.

The invention consists in the use of metallic cans or vessels having a porcelain or some other vitrified lining; in the arrangement of said cans in the cooling tank; the means provided for holding the cans in position; the combination for drawing off the milk after creaming; and the combination whereby the cream may be readily seen when the milk is being drawn off.

The object of the invention is to provide creaming cans or vessels that will not readily foul or become sour, and the production of a creaming device or apparatus that will be simple in construction, convenient in use, and easily cleaned.

The purposes of the invention are attained by the mechanism and devices illustrated in the accompanying drawings, in which similar letters and numerals of reference designate like parts throughout the several views, and in which—

Figure 1 is a front elevation of a cream drawing device embodying the elements of my invention, the safe door on the right having been removed and the top lid partially opened; Fig. 2, a transverse vertical section taken through the line x, x in Fig. 1; Fig. 3, a top view of Fig. 1, the top lid of the chest and the cover of the can on the right having been removed; Fig. 4, an inverted view of a can detached from Fig. 3; and Fig. 5, a top view of a portion of the tank bottom, its front and rear walls appearing in horizontal section taken at y, y in Fig. 2.

In the drawings, A represents the body of a creamery chest or case, which may be of any approved form, the chest having an inside metal lining, a, throughout. In the front wall of the chest are two safe-doors A′, having a metal lining a' secured to their inner faces, and the doors are hinged to the front edges of the side walls of the chest, as at 1 and 2, the door on the right having been removed to show the front face or wall of the cooling or creamery tank; while a top-lid A^2, its under face being covered with metal sheeting a^2, is hinged along the upper edge of the rear wall of the chest as is shown at 3 and 4. This metal lining is introduced to prevent fouling, as well as for the ready cleansing of the chest.

Within the upper part of the chest is placed a water or cooling tank B formed of sheet metal. The tank has a sloping bottom b, inclining downward from the rear wall, where its rear edge is attached to said wall, to a point near the front, or doors, of the chest, where said sheet metal turns upward forming a vertical wall b', and sloping outward, has its upper edge secured to the front wall of the chest and above the doors before mentioned. The side edges of the sheet metal forming the sloping bottom and the front or vertical wall of the tank are permanently secured to the side walls of the chest. At about the middle of the tank the lowest portion of its bottom is provided with a tube B′, having a valve b^2, whereby the water or cooling liquid within the tank may at any time be readily drawn therefrom. Below the tank and in the lower part of the chest is a space 5 which may be used for refrigerating purposes, or the storage of the cream after having been drawn from the cans above, and in front of the tank is a space 6 in which the can spigots and cream windows are placed. Within the tank and secured to its sloping bottom are circular disks C each having in its upper face a socket c adapted to receive a lug projecting downward from the bottom of the creaming can yet to be described.

A creaming can D, somewhat bell-shaped in form and having a sloping bottom d, is made of cast iron and provided with a porcelain lining d'. Projecting downward from the bottom of the can is a central lug d^2,

adapted to enter the socket *c*, before mentioned to hold the can in a perpendicular position and in place. Through the front wall at the lowest point of the can is an orifice d^3 screw threaded within to hold the drawing off spigot, while above it, at the cream line is a similar orifice d^4, also screw threaded within and adapted to hold a plug-screw, both plug-screw and spigot being yet to be described. The can may be made of any other suitable metal, and the lining may be some other vitrified substance, but cast iron is preferred for its well known conducting property, and the porcelain lining, for the same reason as well as for its non-porosity. In the present device two such cans are shown, but I do not limit myself to these, for it is evident that any number of cans may be similarly arranged and used.

A drawing-off spigot E, having an angular shoulder *e* for turning, has its inner end beyond the shoulder screw-threaded and after passing through the vertical wall of the tank is firmly screwed into the orifice d^3 of the can, while within the tank a packing washer e' is placed between the can and tank and on the outside a similar washer e^2 is placed between the tank and the shoulder *e*, these washers serving to prevent leakage at this point.

At a short distance above the spigot and in the same vertical plane an angular headed plug-screw F, having through its center an axial orifice *f* into which is fitted and secured in place a transparent disk f', and after passing through the wall of the tank, is firmly screwed into the orifice d^4 of the can, while within the tank a packing washer f^2 is placed between the can and tank and on the outside a similar washer f^3 is placed between the tank and the angular head of the screw, these washers serving to prevent leakage at this point.

The can is provided with a cover G consisting of a concaved portion *g* having a central orifice g' over which is stretched and secured to said portion a finely meshed wire net g^2, and an annular or downwardly projecting rim portion g^3, which portions have their outer edges folded and joined together forming a flange g^4 adapted to rest on the opening or mouth of the can, closing the same; and, when so desired, the cover may be inverted on the can and the milk poured therein, the wire net g^2 serving as a strainer.

To the front and rear walls and near the top of the chest are attached in pairs bracket plates H and H′, each pair adapted to engage the outside of a can near its top to steady said can in its vertical position in the tank.

Now the parts as described occupying the positions indicated in the several views of the drawings, it will be readily observed that the water, or cooling liquid, in the tank entirely surrounds, as well as being underneath, the cans in which the milk is placed for creaming; that when desired said liquid may be readily drawn from the tank by means of the tube B′ having the valve b^2; and that after creaming the milk underneath the cream may be readily drawn from each can by means of its spigot E, the cream showing through the transparent disk f' in the axial orifice *f* of the plug-screw F when the milk, or a sufficient quantity thereof, shall have been separated therefrom.

Having now described my invention, what I do consider particularly new, and desire to secure by Letters Patent of the United States, is—

A creaming device comprising in combination, the cooling tank B, provided with a vertical front wall b', inclined outwardly at its upper end, a sloping bottom *b*, having a disk C, with a socket *c;* the creaming can D, bell shaped at its upper end and having an inclined bottom *d*, with a downwardly projecting lug d^2, formed integral therewith and adapted to be seated in the socket of the disk on the bottom of the cooling tank; the plug screw F, with transparent sight disk f', and the drawing off spigot which engage and connect the tank and can together at their lower ends, the bracket plates H, H′, for supporting the cooling tank at the top, and the cover G, consisting of a concave portion *g*, having a downward and inwardly projecting rim g^3, and a central orifice g', with a wire net or strainer g^2, substantially as described.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

SIMON L. BRANDT.

Witnesses:
JOHN BAKER,
JAS. M. BAKER.