

(No Model.)

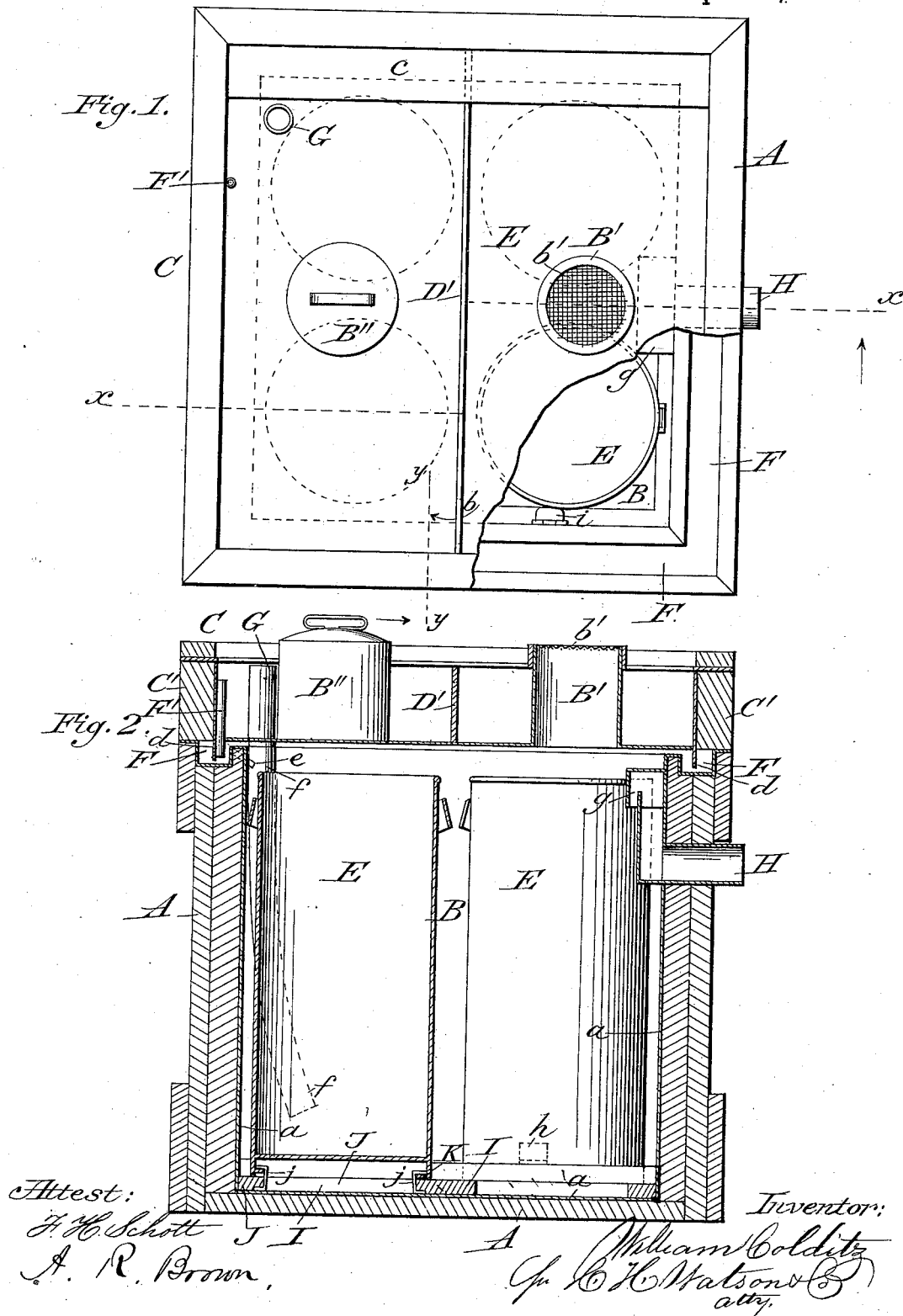
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W. COLDITZ.

MILK COOLER.

No. 264,244.

Patented Sept. 12, 1882.



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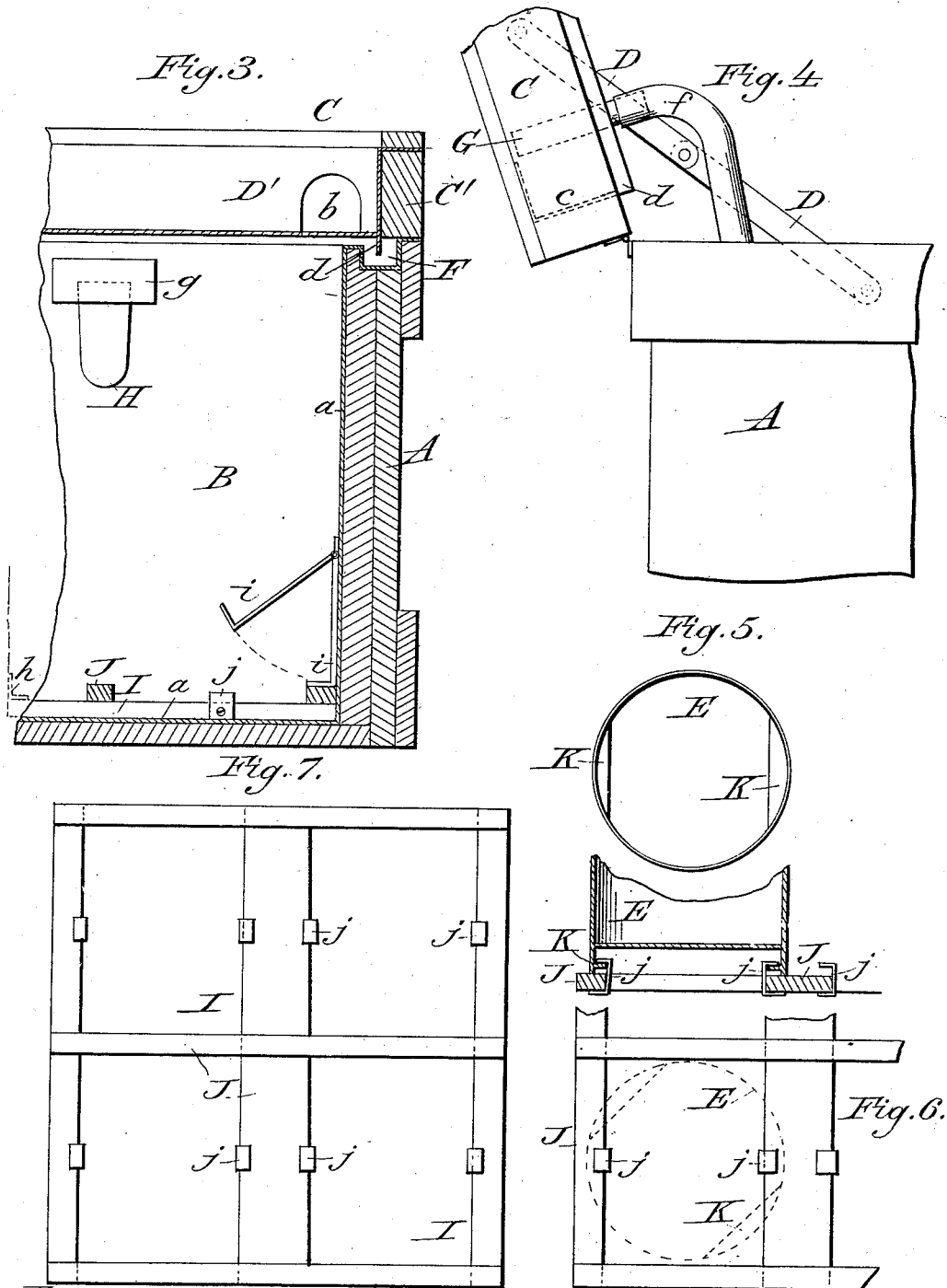
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Attest:

J. H. Schott
A. R. Brown

Inventor:
William Colditz
per E. H. Watson & Co. Attys

UNITED STATES PATENT OFFICE.

WILLIAM COLDITZ, OF ROCHELLE, ILLINOIS.

MILK-COOLER.

SPECIFICATION forming part of Letters Patent No. 264,244, dated September 12, 1882.

Application filed June 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM COLDITZ, a citizen of the United States, residing at Rochelle, in the county of Ogle and State of Illinois, have invented certain new and useful Improvements in Milk-Coolers; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in milk-coolers or creamers; and it consists in the construction and arrangement of parts, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 shows a plan view of my improved creamer. Fig. 2 is a vertical section on the line *x x* of Fig. 1. Fig. 3 is a similar section on the line *y y* of Fig. 1. Fig. 4 is a partial side view, showing the cover raised. Fig. 5 is a bottom plan and sectional view of a milk-can, illustrating the manner of securing the can to a rack which is arranged in the bottom of the creamer. Fig. 6 is a detail view, showing the manner of attaching and removing the can; and Fig. 7 is a plan view of the rack.

The cooler or creamer proper consists of a wooden box or cabinet, A, lined with galvanized iron *a*, thus forming a tank or receptacle, B, for holding cold water and the cans of milk. The receptacle B is provided with a cover, C, which is hinged to the box A. This cover can be raised when necessary, and is held at a suitable elevation by means of a bracket, D, pivoted at the side of the cover and box, as shown in Fig. 4. This cover C is essentially a shallow galvanized iron tank secured to an outside wooden frame, C'. One or more partitions, D', of galvanized iron extend across the shallow tank C, dividing it into two or more circulating water-chambers. Openings *b* are cut through the partitions for circulating the water from one chamber to another.

B' represents pipes or ventilators placed in the cover C, one over every pair of milk-cans E, as shown in Fig. 1. These ventilators are covered with fine wire gauze or screens *b'* to exclude insects when the ventilators are open, and these screens may be arranged so as to be

removable. The ventilators are closed or sealed, when desired, by caps or covers B'', which are slipped over the ventilators, and rest in the body of water in the tank C. The tank C is partially covered at its rear end or side, as shown at *c*, thus forming a trap for holding any sediment or water that may remain in the tank when the cover is raised.

F represents a shallow groove or channel extending all around the top of the creamer-box, which channel is filled with water from the tank C by means of a tube, F', secured to the side of the tank. A projecting flange, *d*, of the cover-tank extends down into the groove F, and forms a perfect water-lock entirely independent of the supply of water in the creamer proper. The operator is thus enabled to hermetically seal the milk in the creamer without filling the body of the creamer, if so desired. In addition to this construction, or in lieu of the same, I may attach a rubber tubular packing to the under edge of this cover for the purpose of securing an air-tight joint. The groove F is provided with an overflow or waste pipe, *e*, emptying into the creamer-tank B. (See Fig. 2.)

G is an overflow-tube placed in the cover-tank C, by which water from said tank is conveyed through an attached rubber or flexible pipe, *f*, to the bottom of the creamer. The water from the tank B passes out through the overflow or waste pipe H, which is provided with a trap-cap, *g*, to prevent warm air from entering through the waste-pipe, and enabling the manufacturer to raise or lower the waste-pipe to any required place in the side of the creamer-box.

Another feature of my invention relates to means for holding the milk-cans firmly to a frame or rack, I, which rests on the bottom of the tank B, and is held there by means of the fixed lugs *h* on one wall of the creamer and the hinged hooks or fastenings *i* on the opposite side, as shown in Fig. 3. By raising the hinged fastening the rack can be withdrawn from the tank when it is necessary to clean the same.

The frame or rack I, which is composed of wood or other light material, is made of a shape corresponding to the bottom of the tank B, and consists of cross-pieces J, provided with catches *j*, arranged at proper intervals to engage with

strips or lugs K, that are soldered or otherwise secured to the sides of the cans E a trifle below the bottoms thereof. (See Fig. 5.) A partial twist of the can by the operator will dis-engage the cans from the catches *j*, when they may be lifted out. (See Fig. 6.) The cans are thus readily secured by giving them a partial turn after they are placed in the creamer. In this way the cans are kept from rising and floating in the water in the tank B, even when the cans are empty or only partially filled.

The operation of the creamer is as follows: The cans E, being wholly or partially filled with milk, are placed on the frame I, which is previously placed in and secured to the bottom of the tank B by means of the hooks *h* and *i*, as before described, and are then turned so as to engage them with the catches *j* on the rack I. The cover C is next closed, and a constant supply or flow of water from any suitable source is let into the tank C. By means of the feed-pipe F' the groove or channel F is filled with water, making an independent water-lock between the cover and box, even if there should be no water in the box. The overflow from the groove F passes into the tank B by the pipe *e*. The overflow from the cover-tank C passes through the pipes G and *f* to the bottom of the creamer-tank B, the water circulating upward and around the cans E, thereby cooling the milk therein and hastening the raising of the cream, and passing out through the pipe H, the warm air being prevented from entering by the trap *g*. It is to be observed that the cover C, with its circulating water, also aids in cooling the milk.

The ventilators B' over every pair of cans provide abundant egress for all animal heat and odor from the milk, and electric influences on the milk can be avoided by closing the ventilators with the caps B'' when desired.

When the proper time has elapsed for raising the cream the water-supply is cut off, the cover-tank emptied, and the cover raised, so that the cans may be removed from the box.

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

1. A milk cooler or creamer consisting of a water tank or receptacle, B, having a groove or channel, F, in its edge extending all around the same, said groove having a waste-pipe, *e*, an overflow-pipe, H, provided with trap *g*, a cover or tank, C, having flanges *d*, which project into the groove F, said cover having partitions D', provided with openings *b*, a trap, *c*, overflow-pipe G, flexible pipe *f*, feed-pipe F', and ventilators B', having screens *b'* and caps B'', and a rack, I, secured in place in bottom of tank B by fixed lugs *h* and hinged catches *i*, and provided with catches *j* to engage with lugs K on the bottom of milk-cans E for securely holding the same in the creamer, all arranged, constructed, and operated in the manner and for the purposes substantially as shown and described.

2. The combination, in a milk-cooler, with a tank or water-receptacle, B, having a groove, F, around its top or upper edge, provided with a waste-pipe, *e*, and an overflow-pipe, H, and cap *g*, of a water cover or tank, C, having a projecting flange, *d*, feed-pipe F', partitions with apertures *b*, overflow-pipe G, with flexible pipe *f* secured thereto, and ventilators B', provided with screens *b'* and caps B'', of a rack, I, having catches *j*, and of milk-cans E, having lugs K on their bottoms, substantially as and for the purposes shown and described.

3. A cover for a milk-cooler, consisting of a frame, C', tank C, having perforated partitions D', flanges *d*, ventilators or pipes B', having screens *b'* and caps B'', feed-pipe F', overflow-pipe G, and trap *c*, substantially as and for the purposes shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM COLDITZ.

Witnesses:

LINCOLN COLDITZ,
M. F. CLARK.