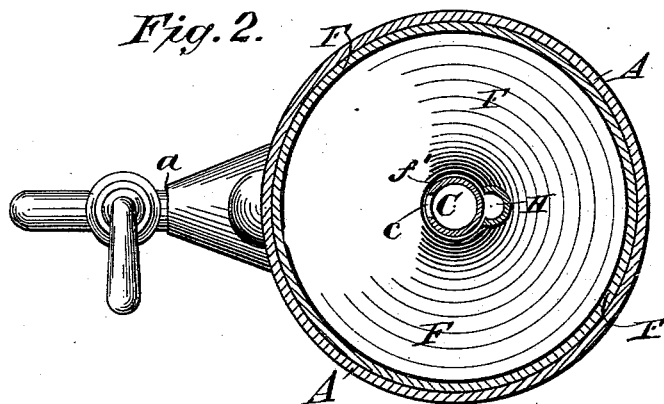
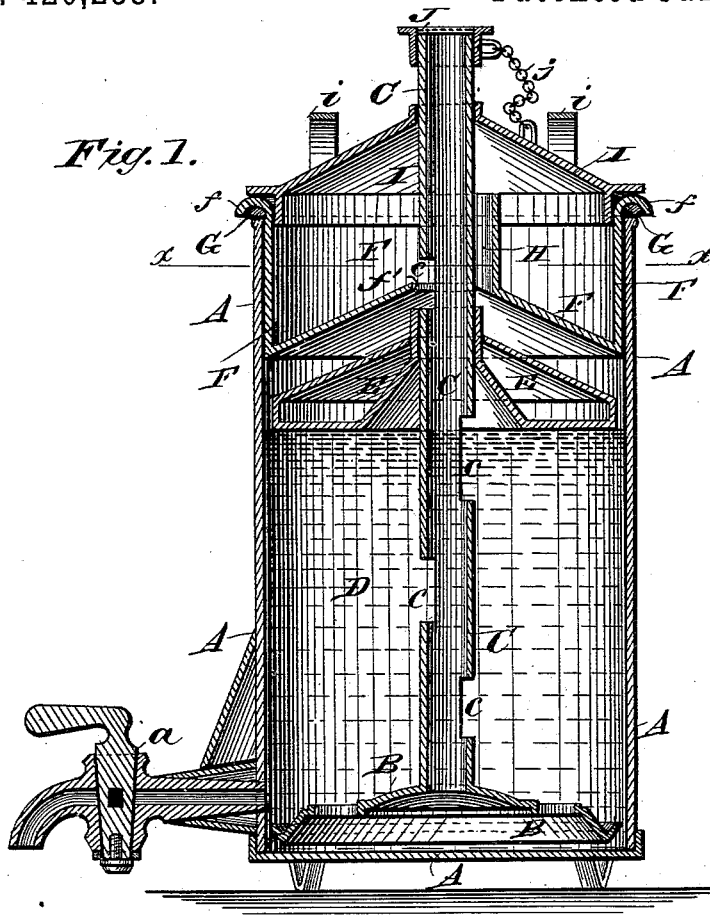


(No Model.)

A. W. H. SMITH.
MILK CAN.

No. 420,253.

Patented Jan. 28, 1890.



WITNESSES:

Phil. C. Dittarich,
C. Sedgwick

INVENTOR

A. W. H. Smith

BY

Munn & Co
ATTORNEY

UNITED STATES PATENT OFFICE.

AGNES W. H. SMITH, OF BEAVER DAM, WISCONSIN.

MILK-CAN.

SPECIFICATION forming part of Letters Patent No. 420,253, dated January 28, 1890.

Application filed March 25, 1889. Serial No. 304,750. (No model.)

To all whom it may concern:

Be it known that I, AGNES W. H. SMITH, of Beaver Dam, in the county of Dodge and State of Wisconsin, have invented a new and Improved Milk-Can, of which the following is a full, clear, and exact description.

My invention relates more particularly to milk-carrying cans provided with an animal-heat exit-tube, and has for its object to provide a simple, inexpensive, and efficient surface cooler or refrigerator for cans or vessels of this character which will keep the milk constantly cool and sweet.

The invention consists in certain novel features of construction of the surface-cooler as combined with the milk-can, all as hereinafter described and claimed.

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

Figure 1 is a central vertical sectional elevation of my improved milk-can, and Fig. 2 is a plan view thereof in section on the line $x x$ in Fig. 1.

The main body A of the milk-can may have any approved form, size, or construction. I show it made cylindrical in form and with a single wall and having a spout or faucet a , through which its contents may be drawn at pleasure. I also show the can provided with a perforated dasher B, fixed to the lower end of a tubular or hollow stem or handle C, which has series of side apertures c extending along it at intervals nearly to the top of the can-body to establish communication between the body of milk D in the can and the interior of the tube to carry off the heat of the milk through the open top end of the tube which projects above the top of the can. On the central tube C is fitted a float E, which lies on the top of the milk and prevents excessive agitation or churning of it while the can is in transit.

All the above-named parts are described and claimed as to their novel features in another application for Letters Patent made by me; hence the novel features of the present invention are embodied in the surface-cooling top or cover of the can and its combinations with the tubular side-apertured central tube

C, which, in so far as concerns the present invention, may be fixed to the bottom or other part of the can and form no part of a milk agitator or dasher B, which may be dispensed with, and the float E may also be dispensed with in practicing the invention, which I will particularly describe as follows: The surface-cooling top or cover of the can is made with an ice-receiving box or vessel F, which fits closely down within the top of the milk-can A, and preferably has a curved marginal flange f , in or under which rests a packing G, of rubber or other suitable material, which makes an air-tight joint between the top of the milk-can and the ice-box. The bottom of this box is preferably highest at the center, where it is provided with a hole f' , through which the air-tube C passes, and next to this hole the box is provided with a cold-air tube or passage H, which may be formed by a partial tube closing at its open side against the closed side of the tube C, or may be a complete full round tube extending from the bottom of the ice-box, preferably at its center, to the top of the box. After the ice in broken lumps is placed in the box F, a cover I, having a central hole to allow passage of the tube C, will be fitted tightly to the box, and the top of this tube will be covered by a perforated cap J, which excludes dust from the tube and milk, while allowing free escape of animal heat from the milk through the tube to the atmosphere. This cap J will preferably be held to the ice-box cover by a tie-chain j , so that it will always be at hand for use when the surface-cooling device F I is fitted to the can and around the tube C thereof. The cover is also preferably provided with a couple of handles $i i$, by which it may be more conveniently adjusted to and removed from the ice-box.

It is obvious that when the ice-filled and covered box F I is adjusted to the milk-can, as above described, and as shown in Fig. 1 of the drawings, the drip from the melting ice will not flow into the milk in the can A, but will collect at the outer sloping bottom part of the box, and the cold air from the ice-box will flow through the tube H downward into the body of the can A and onto the milk around the float, or directly on the entire up-

per surface of the milk, should the float be dispensed with, and in either case the cold air will chill the can-walls and keep the milk sweet until exhausted from the can. When
5 the float is used, the tube C, having side apertures *c*, and whether connected to a dasher-head or not, will be very serviceable, as these side apertures will admit cold air directly to the body of milk in the can beneath the float,
10 and one of these side apertures *c* of the tube may open directly into the ice-box, as shown, and thereby more directly assure the passage of cold air to the body of milk, while the tube or passage conducts cold air to the
15 walls of the can and float, when the latter is used, to increase the refrigerating effect of the surface-cooling top or cover of the can. It is obvious that either the side slots or holes *c* of the heat-dispelling tube C
20 or the tube H of the surface-cooler may be dispensed with; but I prefer to use both for the increased or more complete refrigerating effect they jointly have over either used alone, and as will be understood from the aforesaid
25 description.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination, with a milk-can having an open-topped heat-exit tube extending 30 above the can and provided with side apertures within the can, of a surface-cooler consisting of an ice-box fitted to the can-top around its heat-exit tube and provided with a passage or tube conducting cold air from 35 the box to the interior of the can-body and heat-exit tube, substantially as herein set forth.

2. The combination, with a milk can or vessel having a heat-exit tube C extending above 40 the can and provided with side apertures *c*, of an ice-box F, fitted in the can and having a passage *f'* adapted to register with one of the tube-apertures, and provided also with a cold-air passage H, and a cover I fitted to the 45 ice-box around the tube C, substantially as herein set forth.

AGNES W. H. SMITH.

Witnesses:

G. STOLL,
EDWARD ELWELL.