W. A. MOORE.

Refrigerating Transportation-Can.

No. 204,239. Patented May 28, 1878.

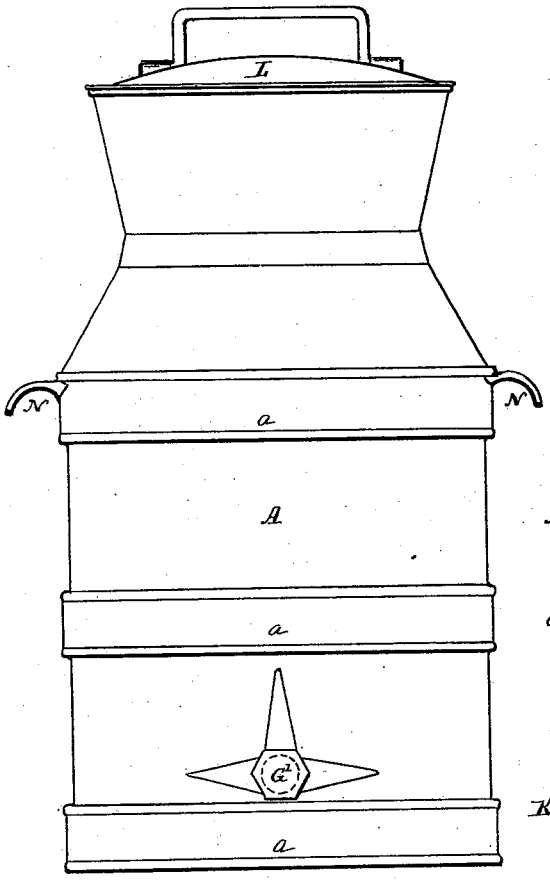

Fig. 1

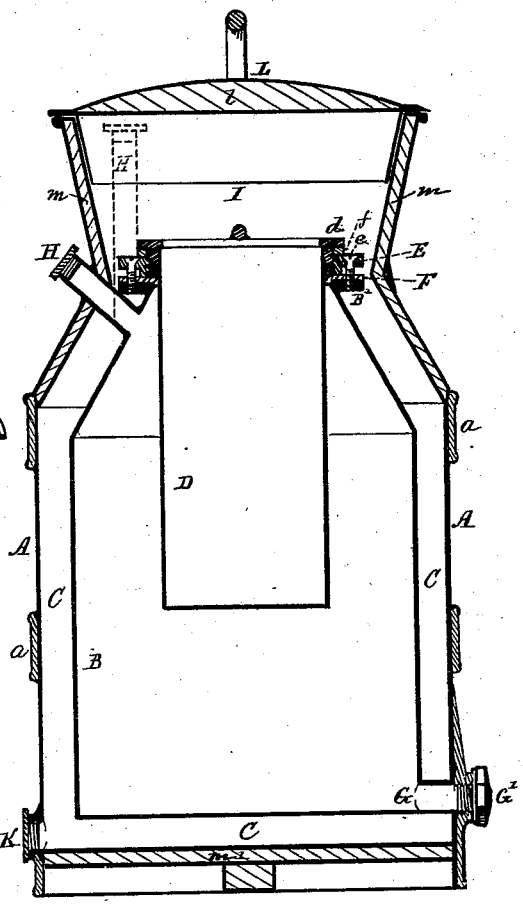

Fig. 2

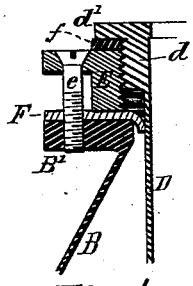

Fig. 4

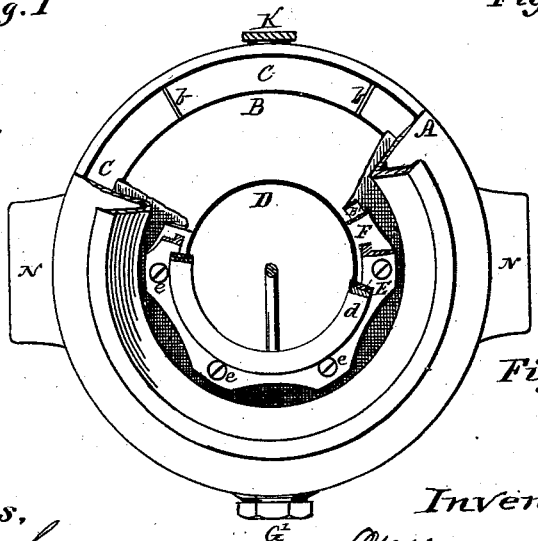

Fig. 3

Witnesses.

S. R. Barton

Geo. M. Rice

Inventor

William A. Moore

per Chas. H. Burleigh

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM A. MOORE, OF BOYLSTON, MASSACHUSETTS.

IMPROVEMENT IN REFRIGERATING TRANSPORTATION-CANS.

Specification forming part of Letters Patent No. **204,239**, dated May 28, 1878; application filed February 13, 1878.

To all whom it may concern:

Be it known that I, WILLIAM A. MOORE, of Boylston, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Refrigerative Transportation-Cans for Milk and other Substances; and I declare the following to be a description of my said invention, sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side view of my improved refrigerative can. Fig. 2 represents a central vertical section of the same. Fig. 3 is a top or plan view, parts being shown in section to illustrate their construction. Fig. 4 is an enlarged vertical section of the closing connection-joint.

The object of my invention is to provide a convenient and serviceable refrigerative can, for facilitating the transportation of milk and other perishable substances which require the use of refrigerants for their proper preservation during shipment; and my invention consists in a refrigerative can constructed substantially as set forth and described, the particular features claimed being hereinafter definitely specified.

In the drawings, A denotes the exterior casing or main shell of the can, which may be formed of tinned plate or other suitable sheet metal, as desired.

B denotes the can proper, or milk-receiver, formed of less height and diameter than the main shell A, within which it is supported by vertical webs or braces *b*, in such manner as to leave a water space or chamber, C, between the two casings, both at the sides and bottom of the can.

D indicates a cylindrical receptacle or ice-tank, supported at the mouth of the milk-receiver B, and extending down into the central interior of said receiver for a greater or less distance, in the manner illustrated. Said cylinder D is formed open at the top and closed at its lower end, while its upper end or rim is fitted to close the mouth of the receiver B by a secure water-tight joint, the connecting parts being in the present instance made as shown in Figs. 2, 3, and 4.

E denotes a removable ring, screw-threaded at its inner edge, and secured to the rim B′ of the receiver B by the screws *e*. The screw-threaded top or rim *d* of the ice-receptacle D is screwed into the ring E, and a packing-ring, *f*, is arranged for compression between the flange *d′* and ring E to seal the connection and prevent the ingress of water.

F indicates an annular packing-piece, of rubber or other suitable material, arranged and secured between the ring E and rim B′, with its inner edge projecting and pressing against the cylinder D. This packing F serves as a scraper for removing any adhering milk or cream from the external surface of the cylinder D when the latter is withdrawn from the milk-receiver B. It also forms a tight joint around the cylinder, and prevents the milk from washing into the screw-threads.

The packing F can readily be renewed, when required, by taking out the screws *e*, thereby releasing the ring E, by which the packing is held.

The ice receptacle or cylinder D is provided with a suitable handle, by which it can be turned or raised from the can, when desired.

G indicates the passage for the withdrawal of milk from the receiver. Said passage may be fitted with a faucet in place of the screw-plug G, and said faucet and plug may be interchangeable, if desired.

H indicates a passage or tube used for completely filling the receiver B after the cylinder D has been inserted to position, and also for an air-vent when drawing off the milk. Said tube H may, if desired, be arranged within the interior or neck space I, as per dotted lines, Fig. 2.

K denotes the passage and plug for the withdrawal of water from the space or chamber C.

L denotes the cover, which is formed double, with inclosed air-space *l*. This cover may be of any suitable form, and be provided with a lock or other means for securing it to the can.

The neck and bottom of the shell A are formed double, with inclosed air-spaces *m m′*.

N N indicate handles, and *a* the re-enforce bands.

The cans may be made of any desired size; but for ordinary use in the transportation of milk a can with a receiver capacity of about

forty quarts, more or less, is deemed a desirable and convenient size.

The method of using the can is to fill the receiver B with milk, or other article to be shipped, and to pack the tank or cylinder D full of ice, and also the top chamber or neck-space I, so that as the ice in the tank D melts that in the neck will settle down into the tank, the ice-water flowing over the shell of the receiver to the chamber C at the bottom of the can, where it is retained.

The can is thus a refrigerator complete in itself, and forms a clean and convenient package for shipment by express or otherwise, and may be carried with other goods without the liability of the water leaking out and injuring them, while the quantity of ice is sufficient to last for a long time, so that milk or other substances can be successfully transported therein for long distances with but little trouble and expense.

Having described my improved refrigerative transportation-can, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The transportation-can constructed, substantially as hereinbefore described, with the exterior shell or casing A, having cover L, the receiver B arranged within said casing, with the surrounding area or chamber C and neck-space I, and the removable ice-receptacle D, open at the top and arranged within the receiver-mouth, where it is supported and retained by a water-tight lock or screw-thread joint, as and for the purposes set forth.

2. The combination, in a transportation-can for milk or other substances, of a milk-receiver, B, ice-receptacle D, ice-supply chamber I, and waste-water chamber C, inclosed complete within an external can, A, having cover L and capped orifice K, for the purposes set forth.

Witness my hand this 11th day of February, A. D. 1878.

WILLIAM A. MOORE.

Witnesses:
CHAS. H. BURLEIGH,
OLIVER S. KENDALL, Jr.