(No Model.)

A. L. EMERY.

MILK CAN.

No. 583,676. Patented June 1, 1897.

Fig 1

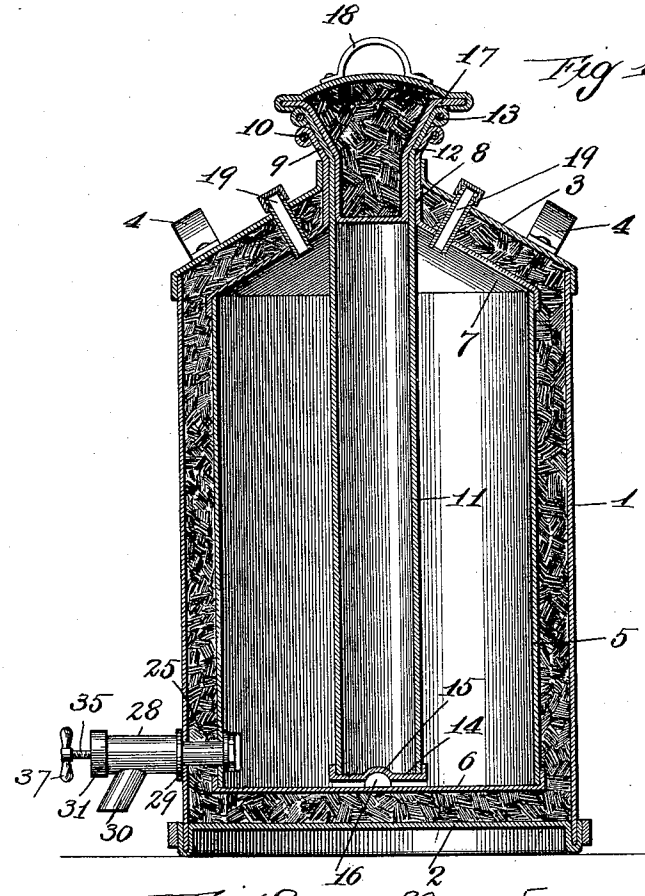


Fig 2

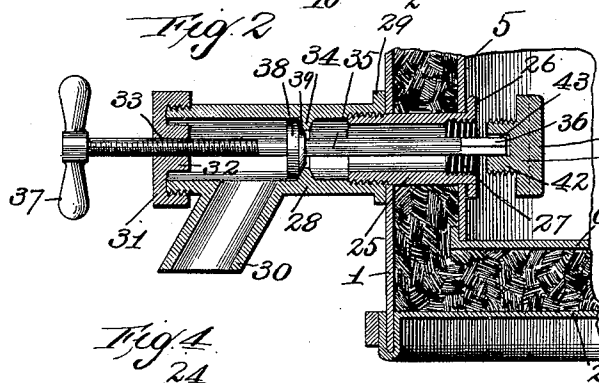


Fig 3

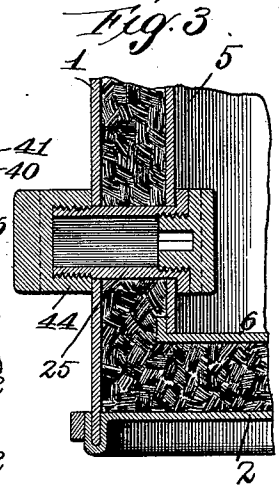


Fig 4

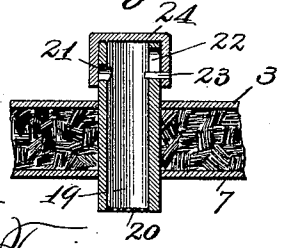
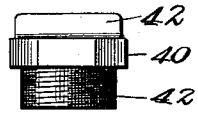


Fig 5



Witnesses
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UNITED STATES PATENT OFFICE.

AVERY L. EMERY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO PROCULE MARTINEAU, OF SAME PLACE.

MILK-CAN.

SPECIFICATION forming part of Letters Patent No. 583,676, dated June 1, 1897.

Application filed July 31, 1896. Serial No. 601,277. (No model.)

To all whom it may concern:

Be it known that I, AVERY L. EMERY, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Milk-Cans, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved milk-can; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a vertical sectional view of a can constructed in accordance with my invention. Fig. 2 is an enlarged detail vertical sectional view showing the faucet made use of in my improved milk-can. Fig. 3 is a vertical sectional view analogous to Fig. 2, showing the outlet-opening of said can closed while said can is being shipped or in storage. Fig. 4 is an enlarged sectional view of one of the escape-valves of which I make use in carrying out my invention. Fig. 5 is a side elevation of the cap used for closing the interior of the outlet-opening of my improved can.

Referring by numerals to the accompanying drawings, 1 indicates the outer cylinder of my improved milk-can, the same being constructed of any suitable sheet metal and provided with a bottom 2 and slightly-conical top 3. Fixed upon this top at points opposite one another are handles 4 of any common form.

5 indicates the inner cylinder of my improved can, the same being constructed of suitable sheet metal and of a diameter slightly less than the cylinder 1. Said cylinder 5 is provided with a bottom 6 and top 7, there being the same space left between the tops and bottoms as there is space between said cylinders. The top 7 terminates in a tubular neck 8, that extends upwardly through the top 3, and the upper end of said neck 8 is flared, as indicated by 9, and the extreme upper edge thereof is beaded and wired, as indicated by 10. The entire space between the inner and outer cylinders and the tops and bottoms thereof is packed with mineral wool or an analogous non-conductor of heat and cold.

11 indicates a cylindrical receptacle that is of such size as that it will just pass through the neck 8, and the upper end of said receptacle is flared, as indicated by 12, in order that it will fit tightly upon the flared upper end 9 of said neck 8. The extreme upper end of said portion 12 is beaded and wired, as indicated by 13. Said cylindrical receptacle 11 is constructed with a bottom 14, in the under side of which is formed a semicircular indentation 15, that fits directly over a hemispherical lug or body 16, that is fixed to the top surface of the bottom 6, at the center thereof.

17 indicates a hollow plug or cap that is so constructed as that it will readily fit in the upper and flaring end of the cylindrical casing 11, and said cap or plug is packed with mineral wool or analogous material and provided with a handle 18, which facilitates the removal or placing in position of said cap or plug.

19 19 indicate tubes that are arranged on opposite sides of the center of the can and in the top thereof, and the lower ends of said tubes extend within the interior of said can and are there provided with perforated coverings 20. The upper ends of said tubes 19 extend outside the top 3, and in each of said protruding ends is formed an aperture 21. Directly opposite this aperture 21 in each of said tubes is formed a vertical slot 22, in which operates a pin 23, that is fixed in the wall of a cap 24, the same being arranged to slide upon the protruding upper end of said tube. When these caps are at their lowermost limit of movement, the apertures 21 are entirely closed. Passing through the walls of the cylinders 1 and 5, adjacent the lower ends thereof, is a tube 25, on the inner end of which is a flange 26, that engages directly against the inner face of the inner cylinder 5, and the interior of said tube adjacent said flange is screw-threaded, as indicated by 27. Said tube projects a slight distance beyond the exterior of the outer cylinder 1, and the same is exteriorly screw-threaded.

28 indicates a faucet, the same being in the form of a straight tube having a flange 29 formed integral with its end, and the interior of the tube adjacent the flange 29 is screw-threaded in order that it may be located upon the protruding screw-threaded end of the tube 25. The faucet 28 is provided with a

spout 30 adjacent its outer end, and said outer end is exteriorly screw-threaded in order that it may receive a cap 31, on the inner face of which is formed a lug 32, through which passes a screw-threaded aperture 33. Formed integral with the inside of the tube comprising the faucet 28, immediately in front of the spout 30, is a V-shaped flange or projection 34.

35 indicates a rod, the inner end of which is squared, as indicated by 36, and upon the outer end of said rod is fixed an operating-handle 37. A portion of said rod 35 adjacent said handle 37 is screw-threaded in order that said rod may be passed through the screw-threaded bore 33 in the cap 31 and lug 32. Upon said rod 35, at a point approximately the center thereof, is a disk 38, having an inclined face 39, that is arranged to engage against the front face of the V-shaped lug 34.

40 indicates a disk that is provided on its outer face with an ear 41 and upon its opposite face with an exteriorly-screw-threaded projection 42, which is of such size as that it will readily enter the interiorly-screw-threaded end 27 of the tube 25. Formed in said screw-threaded projection 42 is a rectangular recess 43 of such size as that it will readily admit the squared end 36 of the rod 35.

44 indicates an interiorly-screw-threaded cap that is constructed to be located upon the exteriorly-screw-threaded projecting end of the tube 25.

In the practical use of my improved milk-can if said can and contents are to be shipped the operator after thoroughly cleansing said can locates the screw-threaded portion of the cap 40 within the interiorly-screw-threaded end of the tube 27, and upon the projecting end of said tube 25 is located the cap 44. The receptacle 11 having previously been removed from the can to allow the operator to locate the plug 40 in the end of the tube 25 is now filled with ice, and after the can has been filled with milk said ice can or receptacle 11 is placed in position in the milk-can, or until the flared portion 12 of said receptacle rests directly upon the flared portion 9 of the neck of the can. To allow the escape of gases, &c., arising from the volume of milk within the can, the operator raises the caps 24 on the ends of the tubes 19 until the apertures 21 are exposed. The pins 23, engaging in the slots 22, prevent the caps 24 from being accidentally removed or lost from the ends of the tubes 19.

When it is desired to locate the faucet on the can, the operator removes the cap 44 from the protruding end of the tube 25, and after manipulating the handle 37, so that the disk 38 on the rod 35 bears against the flange 34, passes the squared end of said rod 35 through the tube 25 and into the squared recess 43 in the cap or plug 40. In this position the exteriorly-screw-threaded end of the faucet 28 is ready to engage upon the screw-threaded projecting end of the tube 25. As said faucet is screwed onto said projecting portion of the tube 25 the squared end 36 of the rod 35, engaging in the recess 43, will cause the cap 40 to be unscrewed from the inner end of said tube 25. Consequently when the faucet has been firmly seated upon the protruding end of the tube 25 the cap 40 will be entirely unscrewed from the opposite end of said tube. By now manipulating the handle 37, so that the disk 38 on the rod 35 moves away from the flange 34, the milk from the interior of the can will pass through the tube 25 into the faucet and freely flow from the spout thereof. When the can is empty and it is desired to reship the same, the operator removes the faucet and relocates the cap 44 on the protruding end of the tube 25. This leaves the cap 40 within the can, from whence it may be removed before again cleansing and refilling the can.

A milk-can constructed in accordance with the foregoing description is very efficient in use, can be easily cleaned, is capable of being provided with a fresh supply of ice as often as desired, and as the faucet for said can is removable said can may be stored in less space and handled much easier than if said faucet were permanently fixed to said can.

I claim—

1. A milk-can, constructed with an outer cylinder, a bottom closing the lower end of said outer cylinder, a top partly closing the upper end of said outer cylinder, an inner cylinder within said outer cylinder, a tubular neck projecting upwardly from the top of the inner cylinder through the top of the outer cylinder, a packing of suitable material which is a non-conductor of heat and cold around said inner cylinder and within said outer cylinder, a hemispherical lug 16 attached to the upper surface at the center of the bottom of said inner cylinder, the cylindrical receptacle 11 inserted through the neck of said inner cylinder and having the semicircular indentations 15 in its bottom to engage said hemispherical lug 16 and a packed cap closing the upper end of said cylindrical receptacle, substantially as specified.

2. A milk-can constructed with an outer cylinder, a bottom closing the lower end of said outer cylinder, a top partly closing the upper end of said outer cylinder, an inner cylinder within said outer cylinder, a tubular neck projecting upwardly from the top of the inner cylinder through the top of the outer cylinder, a packing of suitable material which is a non-conductor of heat and cold around said inner cylinder and within said outer cylinder, a hemispherical lug 16 attached to the upper surface at the center of the bottom of said inner cylinder, the cylindrical receptacle 11 inserted through the neck of said inner cylinder and having the semicircular indentations 15 in its bottom to engage said hemispherical lug 16, a packed cap closing the upper end of said cylindrical receptacle, the tubes 19 penetrating the tops of said inner

and outer cylinders, the perforated coverings 20 upon the inner ends of said tubes, the aperture 21 in the upper ends of each of said tubes, the vertical slot 22 in the upper ends of each of said tubes and opposite said apertures, the caps 24 slidingly mounted upon the upper ends of said tubes and the pins 23 fixed in the walls of said caps and engaging in said slots 22, substantially as specified.

3. A milk-can constructed with an outer and inner cylinder, packing of suitable material which is a non-conductor of heat and cold around said inner cylinder and within said outer cylinder, the tube 25 inserted horizontally through the walls of said cylinders and near the lower ends thereof, the flange 26 upon the inner end of said tube 25 and engaging the inner face of said inner cylinder, screw-threads upon the interior of the inner end of said tube, screw-threads upon the exterior of the outer end of said tube, an interiorly-screw-threaded tube connected to the outer end of said tube 25 and having a spout extending downwardly from its outer end, the cap 31 upon the outer end of said last-mentioned tube and having the screw-threaded aperture 33 in its center, the V-shaped flange 34 projecting inwardly from the inner face of said tube, the rod 35 having the squared inner end 36 and the screw-threaded outer end operating in the aperture 33, the disk 38 upon the center of said rod and having the inclined face 39 engaging the front face of the V-shaped flange 34, the disk 40, the ear 41 formed upon the outer face of said disk, the exteriorly-screw-threaded projection 42 formed upon the inner face of said disk and operating in the interiorly-screw-threaded inner end of the tube 25, said projection 42 having the rectangular recess 43 to receive the squared end 36 of the rod 35, substantially as specified.

4. In a milk-can, the combination with the tube 25, of the faucet 28 consisting of a tube, the inner end of which is interiorly screw-threaded to be seated upon the outer end of said tube 25, the flange 29 upon the inner end of said faucet to engage the outer surface of the outer cylinder of the can, the spout 30 projecting downwardly from near the outer end of said faucet, the cap 31 screw-seated upon the outer end of said faucet and having the lug 32 projecting into said faucet and the screw-threaded aperture 33 formed through the center of said cap and lug, the V-shaped flange 34 formed in said faucet and behind said spout, the rod 35 having the squared inner end 36 and the screw-threaded outer end operating in the screw-threaded aperture 33, the handle 37 upon said rod, the disk 38 upon said rod and having the inclined face 39 to engage the front face of the V-shaped lug 34, the disk 40 having the ear 41 upon one of its faces and the exteriorly-screw-threaded projection 42 upon its opposite face and operating in the interiorly-screw-threaded end of the tube 25, said projection 42 having the rectangular recess 43 to receive the squared end 36 of said rod 35, substantially as specified.

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

AVERY L. EMERY.

Witnesses:
JOHN C. HIGDON,
MAUD GRIFFIN.