W. T. DUNCAN.

MILK CAN CONTAINER AND MILK SERVER.

APPLICATION FILED AUG. 14, 1912.

1,072,588. Patented Sept. 9, 1913.

Fig. 1.

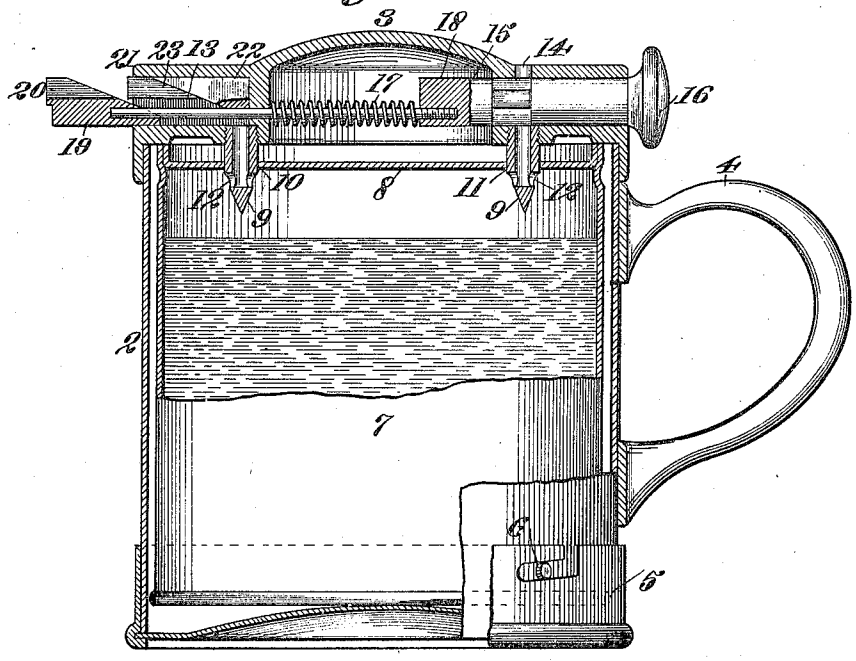


Fig. 2.

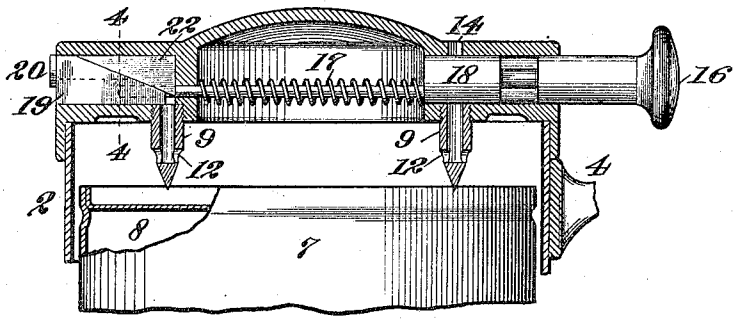


Fig. 3.

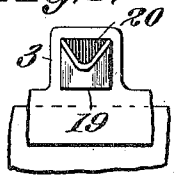
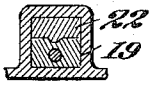


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM T. DUNCAN, OF SAN FRANCISCO, CALIFORNIA.

MILK-CAN CONTAINER AND MILK-SERVER.

1,072,588. Specification of Letters Patent. Patented Sept. 9, 1913.

Application filed August 14, 1912. Serial No. 715,009.

To all whom it may concern:

Be it known that I, WILLIAM T. DUNCAN, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Milk-Can Containers and Milk-Servers, of which the following is a specification.

This invention relates to receptacles for milk cans.

The object of the present invention is to provide an improved sanitary container for cans containing liquids, such as milk, and to provide in such a container means whereby discharge and vent openings can be readily punched in the cans for facilitating the discharge of the substance, and to provide an efficient valve device for hermetically closing the discharge and vent openings; means also being provided to cause the dislodgment of residue substance in the discharge aperture of the device.

Figure 1 is a central vertical section of the device showing the can perforated and the valve opened. Fig. 2 shows the upper portion of the device before the can is perforated. Fig. 3 is an end view of the discharge spout and valve. Fig. 4 is a cross section on line 4—4 of Fig. 2.

In its illustrated embodiment the device comprises a suitably shaped receptacle or shell 2, having a suitable closure 3 at its top, a handle 4 at one side, and a bottom 5 which may be removed readily from the shell 2, or locked thereon by a bayonet slot and pin device 6, although any other appropriate type of locking device may be employed.

The shell 2 is adapted to cover and inclose a milk can 7, or the like, which may be inserted through the open bottom of the shell 2 until its top 8 engages downwardly projecting pointed cutters or punches 9, of which there are two, preferably located adjacent the circumference of the shell 2, and after the can 7 is encompassed by the shell 2, pressure being applied to the top 3 will force the punches 9 through the top 8 of the can, forming openings 10—11, through which the punches 9, which are shown as hollow and provided with passage-ways 12, project into the interior of the can 7.

The hollow punches 9 are securely attached to, or formed upon the top 3, and the ports 12 of the punches communicate with respective chambers 13 at the discharge side of the cap 3, and 14 at the vent side. When the device is not in use, the ports 12 are automatically and normally closed by a reciprocating valve 15, having a projecting button 16, which, when pressed inwardly, compresses a reacting spring 17, so that a cylindrical portion 18 of the valve uncovers the vent port 12 at chamber 14, and shifts a peculiar valve 19 from over the discharge port 12 at chamber 13. Having pressed the button 16 to shift valve parts 18—19, then when the container is inclined the fluid contents of the can 7 will flow into the discharge port 12, and from the discharge chamber 13; air meanwhile flowing into vent chamber 14 and port 12.

It is a desideratum to provide in a container of this type, a valve structure which will effectually seal the discharge and vent apertures, and also exude such portion of the substance as may adhere to the surfaces of the discharge orifice, and to that end I have provided a valve part 19 which has a concaved spout portion 20, and an upper inclined surface 21 adapted, when retracted by the spring 17, to seat upon an inclined wall 22 in the cap 3; the wall 22 being provided with an ejector 23, the configuration of which conforms to the spout 20, so that as the wedge part 19 enters the chamber 13 the milk or other substance therein will be entirely exuded either out of the spout 20 or pressed back into the port 12, as the wedge part 19 enters the chamber 13. By this means the discharge port is not only thoroughly closed and protected from access of insects and air, but also the surplusage in the chamber 13 is dislodged so that when the valve part 19 is closed, as shown in Fig. 2, the parts are in intimate contact and thoroughly close the discharge ports.

As soon as pressure is released from the valve button 16, the spring 17 automatically retracts the valve and closes the ports 12, thereby preventing the accidental discharge of the substance from the can 7 in the event the device should be toppled over accidentally.

The can 7 may be placed upon a table or other supporting surface, and when the bottom 5 is removed from the shell 2, the latter may be passed over the can, and sufficient pressure applied from the top 3 to force the hollow punches 9 to enter the top 8 of the can, and then the bottom 5 may be applied by lifting the can 7 in the device from the supporting surface, or the can may be in-

serted in the inverted container 2 when the bottom 5 is removed and the latter may be placed against the bottom of the can in the inverted container, and force applied to the bottom of the can to force the punches 9 through the top 8 thereof, and no discharge of the substance can occur because the valve is closed.

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

1. A device for perforating milk cans or the like and serving the contents thereof, comprising a suitable shell having an open end, a removable bottom therefor, a closure for the opposite end of the shell having inlet and discharge chambers, a plurality of hollow punches rigidly secured to the closure and projecting downwardly therefrom and adapted for forming apertures in a can top, means coöperating with said removable bottom to cause said hollow punches to puncture the can top, an automatically closable valve mounted in the closure having a portion for closing the vent and simultaneously closing the discharge orifice, and means for cleaning said discharge orifice when the same is being closed.

2. A device for perforating milk cans or the like and serving the contents thereof, comprising a suitable shell having an open end, a removable bottom therefor, a closure for the opposite end of the shell having inlet and discharge chambers, a plurality of hollow punches rigidly secured to the closure and projecting downwardly therefrom and adapted for forming apertures in a can top, an automatically closable valve mounted in the closure having a portion for closing the vent and simultaneously closing the discharge orifice, and means for exuding surplus substance from the discharge orifice.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM T. DUNCAN.

Witnesses:
W. W. Healey,
G. M. Page.