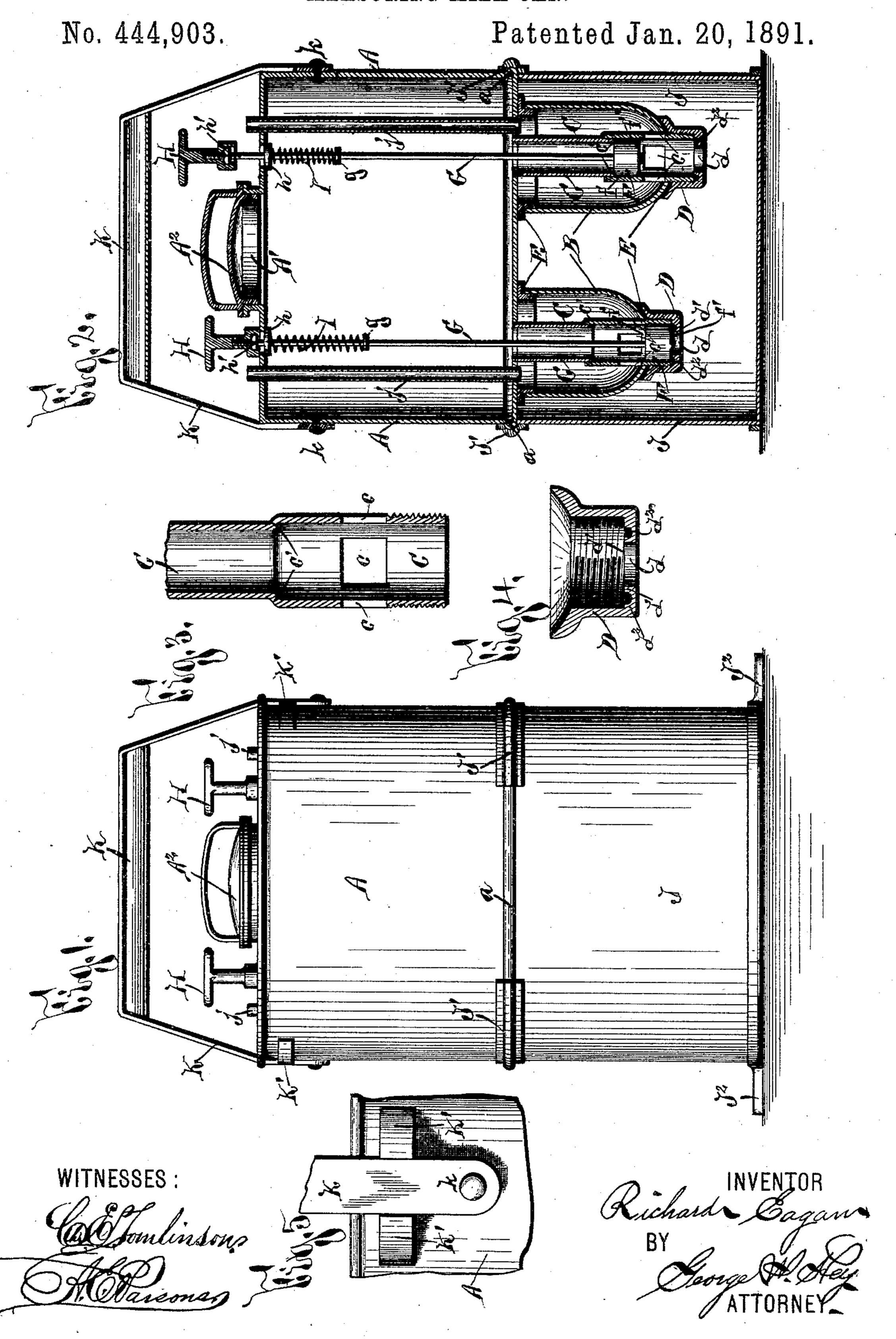
R. EAGAN.
MEASURING MILK CAN.



## United States Patent Office.

RICHARD EAGAN, OF SYRACUSE, NEW YORK.

## MEASURING MILK-CAN.

SPECIFICATION forming part of Letters Patent No. 444,903, dated January 20, 1891.

Application filed June 22, 1889. Serial No. 315,261. (No model.)

To all whom it may concern:

Be it known that I, RICHARD EAGAN, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Milk-Cans, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description

exact description.

My invention relates to an improved milkcan, and has for its object the production of
a simple and effective device for discharging
either pints, quarts, or other measures, as desired; and to this end it consists, essentially,
in a suitable reservoir for containing the milk
or other liquid to be discharged, measuri greceptacles secured to said reservoir, and a
valve for opening the discharge of the reservoir and closing the discharge of the measuring-receptacle, or operating vice versa.

It also consists in a removable cap for protecting the measuring-receptacles from dust, &c.; and it furthermore consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described,

25 and pointed out in the claims.

In describing my invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an elevation of my improved milk-can. Fig. 2 is a longitudinal vertical section of the same, illustrating the relative construction and arrangement of the parts. Fig. 3 is an enlarged detail view illustrating the discharge into and from the measuring-receptacle. Fig. 4 is an enlarged vertical section of the seat of the outlet-valve for the measuring-receptacle, and Fig. 5 is an enlarged detail view of the lower extremity of the handle and a detached portion of the milk-can.

The reservoir A of my improved milk-can may be of any desirable size, form, construction, or material, and is preferably provided at the top thereof with the inlet-opening A', covered by a removable cap A<sup>2</sup> of desirable size and construction. Secured at the bottom of the reservoir are the measuring-receptacles B, of different sizes for measuring different amounts of the liquid contained in said reservoir. These receptacles B are supported upon

a tube or passage C, opening from the reser-

voir A, and provided near their lower extremity with cut-outs or passages c, opening into the measuring-receptacles. The lower extremity of the tube or passage C extends beyond the base of the measuring-receptacle, and secured thereto and preferably by screwthreads is the cap D. The top of the measuring-receptacle is preferably open, and fitting on the outside of a ring secured to the bottom of the reservoir tightly abuts against said reservoir bottom.

In order to make tight joints, I provide the packing-rings E E, interposed between the 65 bottom of the reservoir and the top face of the measuring-receptacle and between the bottom of the measuring-receptacle and the cap D. By tightly screwing up the cap D these packing-rings E E are tightly impinged 70 between the adjacent parts, thus forming an air-tight joint.

The cap D is hollow and is provided with the discharge-opening d. On the interior of this cap and above the opening d is the valve-75 seat d', preferably consisting of an annular ring extending upwardly from the flange  $d^2$ , in which is formed the opening d.

In the lower extremity of the tube or passage C and above the opening c is the shoul- 80 der or valve-seat c'. Between the valve-seats c' and d' I interpose the valve F, having the upper face f and the lower face f'. Secured to said valve F is the rod or stem G, which extends upwardly through the tube or passage C to the outside of the reservoir A. At the upper part of said rod G, I provide the handle H, which, while it may be secured thereto in any desirable manner, is here shown as threaded thereupon.

In order to prevent cramping of the rod G and to insure a free movement of the valve F and allow it to seat itself upon the seats c' and d', I preferably enlarge the opening in the top of the reservoir, through which passes 95 the rod G. On the underneath side of the top of the reservoir A, I provide the washer h. Interposed between the washer h and a shoulder g, secured upon the rod G, I provide the spring I, which constantly forces the valve F 100 against the seat d'.

By reference to the drawings it will be seen that the lower extremity of the tube or passage interposed between the opening c and

the valve-seat d' is of sufficient size, so that when the valve is engaged with the seat d' the opening c will be free to allow the liquid to enter from the reservoir into the measur- ing-receptacle.

When desired to discharge the measuring-receptacle by pulling upward the valve against the action of the spring I, the face f of the valve will engage the seat c', thus closing the discharge from the reservoir and opening the discharge from the measuring-receptacle.

In order to allow of the ready discharge of the measuring-receptacle, I provide an airtube j, which preferably extends from the outside of the reservoir A to the upper part of the interior of said measuring-receptacle.

This milk-can serves a very desirable purpose, since in delivering milk it is frequently necessary for the milkman to deliver milk to persons in close proximity to each other, or, perhaps, in the same block or house. In this case the reservoir is filled with milk from the large milk-can, and the milkman, upon arriving to the customer's jug or pail for the milk, holds the measuring-receptacle directly over the same. He then pulls up the handle H, whereupon the exact amount of milk is discharged into said pail or jug quickly and without any danger of spilling the milk.

In order to prevent the accumulation of dust and dirt upon the measuring-receptacles during traveling, I provide the detachable cap J of desirable form, size, and construction to closely fit around the bottom of the 35 receptacle A. Provided upon the receptacle A is the rib a, and secured to or formed upon the cap J is one or more spring-plates J'. These spring-plates extend upwardly from the top of said cap and are of such a form as to to closely embrace the rib a, when the rib is forced downward and forces outward said plates. While this is the preferable manner of securing together the cap J and the reservoir A, it will be understood that these parts 45 may be detachably secured together in other ways.

In order to disengage the reservoir and detachable cap, I provide on said cap foot-plates, which may be engaged by the milkman's foot.

50 If desired, these plates J<sup>2</sup> may be dispensed with and the sides of the can be engaged by the milkman's limbs, or the cap may be secured to the milk-wagon.

In order to allow the can to be readily filled, the handle K is preferably hinged at k to the reservoir A, and when in upright position forms a support for the hand of the operator when operating the handle H. In order to readily retain this handle K in its desired position, I form on either side thereof the inclined plates or shoulders K'. These shoulders are preferably rigidly secured to the reservoir. The sides of the handle have a slight spring-pressure and can be readily forced over the incline of either of these shoulders, and when the handle is in its vertical position the spring

of the sides thereof causes them to register in the opening between the shoulders K'.

One of the particular features of advantage of my milk-can is the ease with which the 70 same may be taken apart for the purpose of cleansing.

The cap D is readily unscrewed, and thereupon the receptacle B may be readily removed. The handle H is then unscrewed, and the 75 spring I forces downward the valve, whereupon the same may be engaged and the valve and spring withdrawn. It will be seen that the spring would also disengage the washer from the rod G. In order to prevent this, I 80 provide the small nut h', which is secured to the rod G above the top of the reservoir and is registered with a recess in the bottom of the handle H. This nut is sufficiently small to be readily withdrawn through the opening 85 through which the rod G passes, and the said nut prevents the escape of the washer.

The operation of my invention will be readily understood from the foregoing description and upon reference to the drawings, and it will 90 be evident that considerable change may be made in its detail construction and arrangement without departing from the spirit of my invention.

mvention.

Having thus fully described my invention, 95 what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a reservoir, a depending tube or chamber connected to said reservoir, a measuring-receptacle mounted around said tube, with the lower extremity thereof projecting below the measuring-receptacle, a cap or nut engaging said lower extremity and retaining the measuring-receptacle in position, a valve-seat in said cap or nut, and a valve movable toward or away from said seat for allowing or cutting off the discharge from said valve-seat, substantially as and for the purpose set forth.

2. The combination of a reservoir, a tube 110 depending from said reservoir, a measuring-receptacle mounted around said tube, a valve-rod having a valve for admitting and discharging the liquid from said measuring-receptacle, a shoulder on said valve-rod, and a 115 spring supported by said shoulder and by the top of said reservoir, substantially as and for

the purpose set forth.

3. The combination of a reservoir having a depending flange, a tube depending from 120 said reservoir, a measuring-receptacle mounted around said tube, with the upper extremity around said flange and the lower extremity above the lower extremity of said tube, a nut engaging said lower extremity of the 125 tube and abutting against the measuring-receptacle, and packing-joints between the said measuring-receptacle, reservoir, and nut, substantially as and for the purpose specified.

4. The combination of a reservoir, a measuring-receptacle, a valve for discharging the measuring-receptacle, the rod G, carrying said

valve, an opening in the reservoir for allowing the passage of the rod G, and a plate or washer h for closing said opening, substantially as and for the purpose specified.

5 5. The combination of a reservoir, a measuring-receptacle, a valve for discharging the measuring-receptacle, the rod G, having a shoulder g and carrying said valve, an opening in the reservoir for allowing the passage of said rod, a plate h for closing said opening, and a spring I, interposed between said plate and the shoulder g, substantially as and for the purpose set forth.

6. The combination of a reservoir, a measuring-receptacle, a valve for discharging the measuring-receptacle, the rod G, carrying said valve and having a shoulder g, an opening in the reservoir for allowing the passage of said rod G, a movable plate or shoulder for closing said opening, a spring I, interposed between said plate and the shoulder g, and a fixed shoulder mounted upon said rod on the outside of said reservoir and adapted to be drawn through the opening in the reservoir,

7. The combination of a reservoir and a measuring-receptacle with a tube connected to the reservoir and extending through the measuring-receptacle, an opening or openings in said tube, valve-seats above and below said openings, a double-faced valve for abutting

against either of said valve-seats and opening the passage through the opposite one, a projection upon said reservoir, a detachable cap for engaging said projection and pro- 35 tecting said measuring-receptacles, and a spring-catch for engaging said reservoir, substantially as specified.

8. The combination of a reservoir, a depending tube or chamber connected to said 40 reservoir, a measuring-receptacle mounted around said tube, with the lower extremity projecting below the measuring-receptacle, a cap or nut engaging said lower extremity and retaining the measuring-receptacle in position, a valve-seat in said cap or nut, a valve movable toward or away from said seat for allowing or cutting off the discharge therefrom, a valve-rod extending to the top of the can and provided with a handle, and a holding-handle connected to the reservoir in proximity to the handle upon said valve-rod, substantially as and for the purpose specified.

Intestimony whereof I have hereunto signed my name, in the presence of two attesting 55 witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 18th day of June, 1889.

RICHARD EAGAN.

Witnesses:

CLARK H. NORTON, M. BAXTER.