

Liquid-Measuring Cans.

Patented May 26, 1874.

INVENTOR

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN LIQUID-MEASURING CANS.

Specification forming part of Letters Patent No. 151,344, dated May 26, 1874; application filed
April 15, 1874.

To all whom it may concern:

Be it known that we, MARSHALL M. BARNEY and SIDNEY L. DAILY, of Leon, in the county of Decatur and State of Iowa, have invented a new and Improved Measuring-Can for Liquids; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side and partly sectional elevation of the can. Fig. 2 shows the end of the can broken out; Fig. 3, a plan view, with part broken away to show the inner arrangement.

Our invention relates to the arrangement of a float or vent-stopper with the vibrating valve closing the inlet-opening, and to a spring connected with the valves for acting on the float, as hereinafter described.

In the drawing, A represents a can of rectangular form, with two chambers or compartments, B, in each of which are two valves, C C', one closing an inlet-orifice, *a*, the other the discharge-orifice, *a'*, located, respectively, in the top and bottom of the can or compartments, and communicating with inlet and outlet passages D and D'. The valves, which may be cut or cast from any suitable material, are similar in form, being enlarged or fan-shaped at one end and narrowed at the other. Each one is arranged in a circular recess in the chamber, and leather packing is also applied thereat. A piece of leather, *e*, or other elastic material, is attached to or inserted in a recess in the enlarged part of each valve, to tightly close or pack the inlet and discharge orifices. The said orifices are coincident in position, but the valves are so attached to the vertical shaft E that when the discharge-orifice is uncovered the inlet-orifice is closed, and vice versa. Hence the compartment in which the valves are arranged is al-

ways full or being filled when not discharging, and always discharging when not filling. The supply and discharge passages D D', which communicate with both chambers, enable liquid to be drawn from one chamber while the other is filling. The vent *b* is so located in the top of the chamber that the hole *c* in the narrow or tail portion of the upper valve C becomes coincident with it, so as to admit the air when the valve is turned to uncover the inlet and close the discharge opening. We provide a float, F, to close the vent-opening in the tail of the valve, the same being supported horizontally on rods *i i*, and also guided thereby in its vertical movement.

As the chamber fills with liquid, the air escapes through the vent, till the liquid raises the float and closes it.

If the float tends to "stick," in the operation of discharging the contents of a chamber, as it will occasionally do when molasses or heavy oils are being measured, the curved spring *o*, which is attached to the valve, will disengage it. The valve is, however, disengaged from the float by the act of turning it; and when the discharge is taking place. The rods which support the float also limit the movement of the valves.

What we claim is—

1. In a measuring-can, the combination of the float, guide, and supporting rods and valves C C', the upper one of the latter provided with a vent-opening, and the chamber or compartment having inlet, discharge, and vent orifices arranged as shown and described.

2. The combination of the spring with the valve C and float, as shown and described.

MARSHALL M. BARNEY.
SIDNEY L. DAILY.

Witnesses to both signatures:

J. C. ROBERTS,
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