No. 690,530. Patented Jan. 7, 1902.

P. C. SMITH.

GAGE.

(Application filed May 31, 1901.)

(No Model.)

Fig. 1.

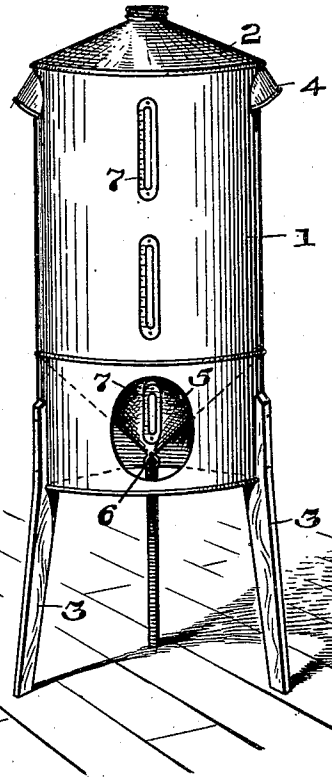


Fig. 5.

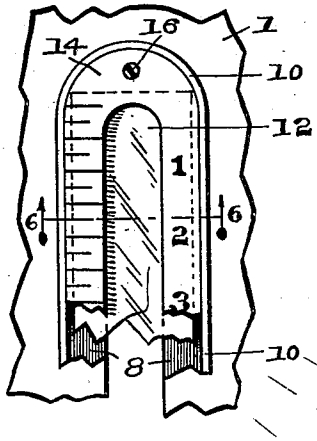


Fig. 6.

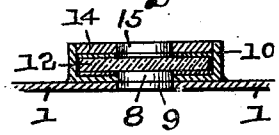


Fig. 2.

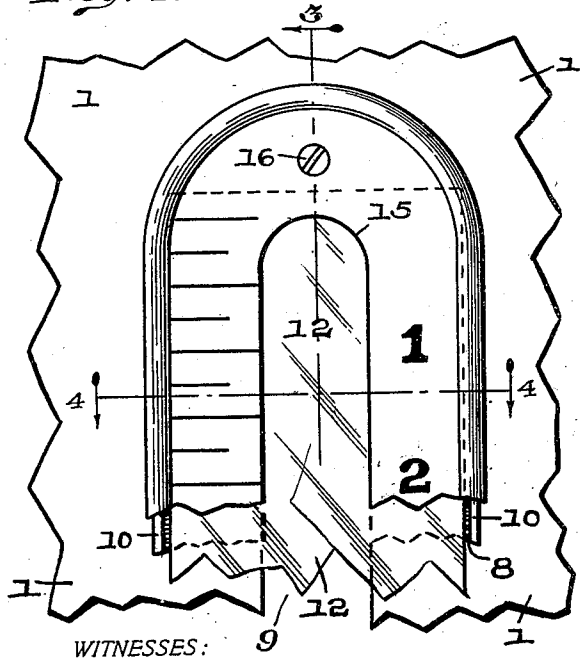


Fig. 3.

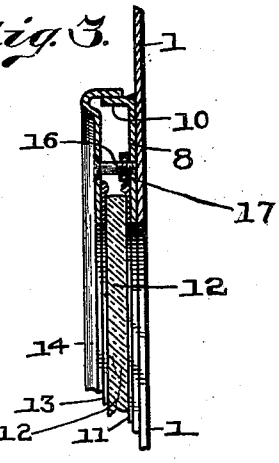
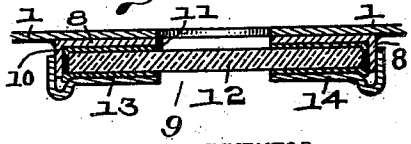


Fig. 4.



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PERRY C. SMITH, OF INDIANAPOLIS, INDIANA.

GAGE.

SPECIFICATION forming part of Letters Patent No. 690,530, dated January 7, 1902.

Application filed May 31, 1901. Serial No. 62,643. (No model.)

To all whom it may concern:

Be it known that I, PERRY C. SMITH, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Gages, of which the following is a specification.

The object of my invention consists in improvements in gages such as shown and described in Letters Patent issued upon the application of Clarence L. Colby, No. 291,296, and dated January 1, 1884.

My gage is applicable to all kinds of vessels employed in storing liquors, and when in operating position the various stages of the liquids which are being drawn upon may be noted through the gages. My gage is most particularly applicable to the cream-separator for which Letters Patent were issued to me dated October 9, 1900, No. 659,494.

In the above-mentioned gage to Colby a rectangular piece of thin metal is used, tin being preferable, and carries a longitudinal slot through which observation is had of the interior of the vessel to which the gage is fixed. This slot is overlaid with a transparent material, and as the metal is cut of a length and breadth greater than the transparent material the extended portions or wings are bent over and backward thereon, holding the same in position. The joints being cemented with lead to prevent leaking, the gage is then placed in the position desired on the vessel and secured with fusible metal, in which solder is most commonly employed.

In placing my cream-separator on the market it will be readily understood that the major portion of them go among the rural or farming element, and as these people are not in a position, generally speaking, to do repairing when necessary and as the gages are most liable to injury I have made provisions whereby the parts may be quickly and easily disconnected and replaced, all of which is of highest importance.

In the gages of other constructions the entire gage must be removed, which necessarily includes its unsoldering. This is at all times accompanied with considerable labor, and the operation usually terminates in a complete destruction of the frame of the gage, besides marring the vessel. To obviate these difficulties is, specifically speaking, the object of my invention, and the different features, together with the arrangement of the various parts, will be hereinafter more particularly described, and then pointed out in the claim.

Referring to the accompanying drawings, which are made a part hereof and on which similar numerals of reference indicate similar parts, Figure 1 is a perspective view of my separator, showing my improved gage in position. Fig. 2 is a fragmentary detail plan view of the upper end of my gage, the same being on a considerably-enlarged scale. Fig. 3 is a central vertical section thereof as seen when looking in the direction indicated by the arrows on the dotted line 3 3 in Fig. 2. Fig. 4 is a cross-section of the gage as seen when looking in the direction indicated by the arrows on the dotted line 4 4 in Fig. 2. Fig. 5 is a fragmentary detail plan view of my gage and shows the cover thereof in a modified form, and Fig. 6 is a cross-section as seen when looking in the direction indicated by the arrows on the dotted line 6 6 in Fig. 5.

In the drawings, 1 is the main body of the separator; 2, the top; 3, the legs; 4, handles; 5, the conical bottom, and 6 a valve at the apex of the conical bottom whereby the contents of the separator are withdrawn.

7 represents the gage.

8 is the main body of the gage and is stamped out of a single piece of material, having its end formed semicircular and its sides formed integral with the bottom, all of which is done by the well-known method of compression. The bottom 8 carries a longitudinal slot 9, which registers with a corresponding slot in the side wall of the receptacle or vessel to which the gage is secured and allows an unobstructed view of the interior thereof. The body 8 is permanently fixed to the can or receptacle by soldering. A layer of lead (white lead) 11 or other sealing-cement is placed on the bottom 8, surrounding the slot 9, and the glass 12 or other transparent material is placed within the said body, when a second layer of lead 13 is laid surrounding the slot 15 in the cover 14, which cover is then placed into position. It will be readily understood that the use of lead is to seal the joints, the various layers being best shown in Figs. 3 and 4.

The cover 14 is formed similar to the body 8, except that the surface thereof is "set in" or below a plane-line of its peripheral edges. These edges present a narrow convex surface. With my cover constructed in this manner the side walls of the body 8 are allowed to engage with the channel formed by the inverted convex peripheral edges of the cover, while the surface descends into the body, giving the required contact-surface upon the transparent material within the body 8, and when the tension is applied, as will be hereinafter described, the parts will be rigidly held and securely sealed. The convex channel formed in the peripheral edge of the cover also serves as a receptacle for the reception and retention of the surplus cement which is displaced during its equalization period, which occurs when the tension is applied by means of the bolts 16.

The body 8 has a nut 17 rigidly secured by soldering to its floor near the inner ends. An inverted bolt 16, having a screw-threaded end, passes through an aperture in the cover 14, which aperture registers with the fixed nut 17 in the body and is adapted to receive the threaded end of the clamping-bolt 16. A graduating scale is embossed on the cover 14 alongside the longitudinal slot 15, while a numeral division is on the opposite, all, however, of which is old and well known.

In Figs. 5 and 6 I have shown the cover 14 in a modified form, in which construction I omit the flanged sides thereof, the top or cover in this instance being cut to fit the inner dimensions of the body, the parts, however, being clamped together by the bolts 16, as previously described.

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

In a gage for creaming-cans, in combination with the main body of the gage having its sides formed integrally therewith, a cover, with integrally-formed sides which sides engage with corresponding sides of the gage-body, a convex rib crimped in the upper and outer peripheral edge of the cover, the concavity of said rib forming a chamber, substantially as described and for the purposes set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 11th day of May, A. D. 1901.

PERRY C. SMITH. [L. S.]

Witnesses:
F. W. WOERNER,
CALLIE E. KINNEY.