(No Model.) 2 Sheets—Sheet 1.

A. P. PETREHN.

CREAM GAGE.

No. 289,855 Patented Dec. 11, 1883.

Fig. 1.

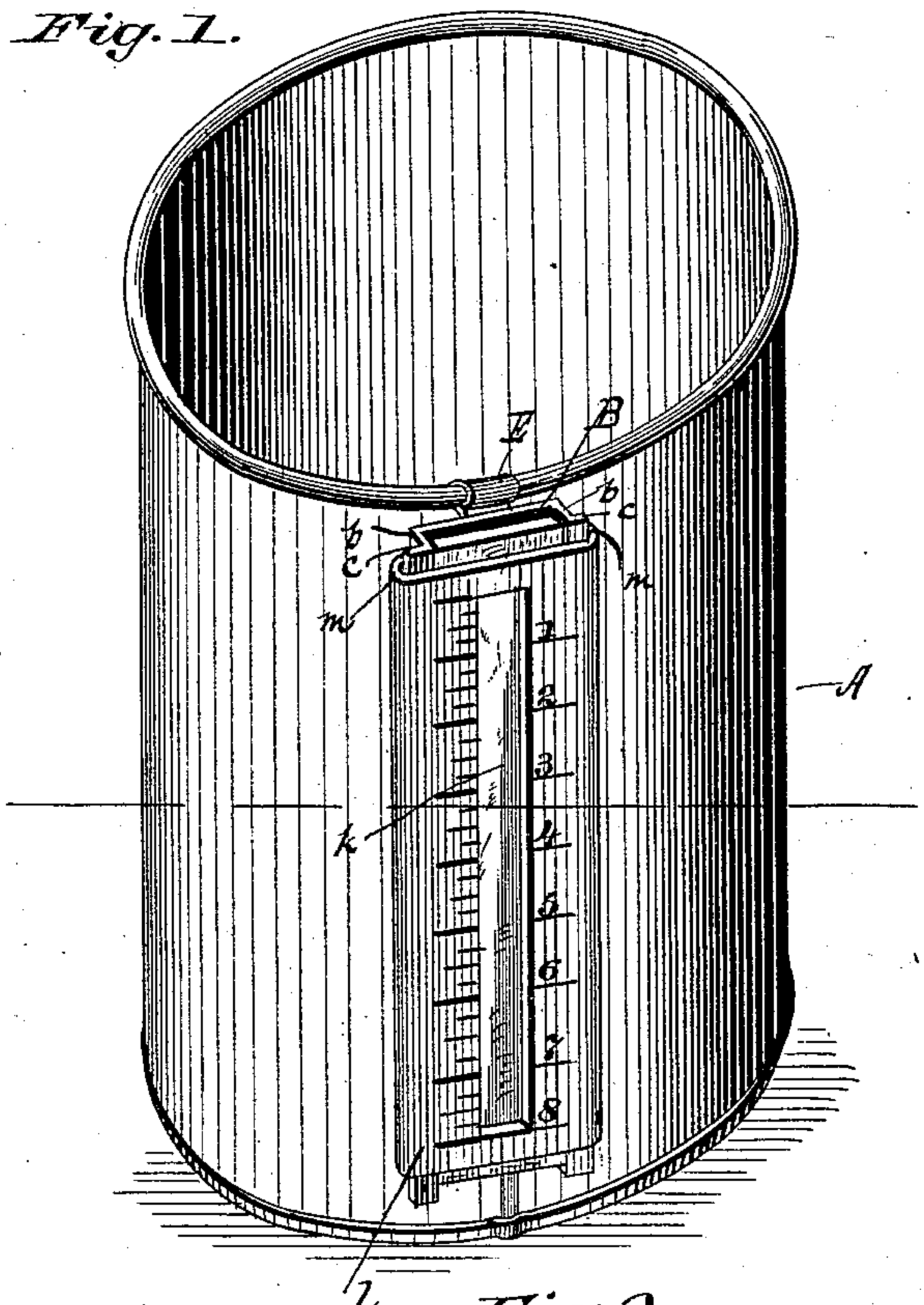


Fig. 3.

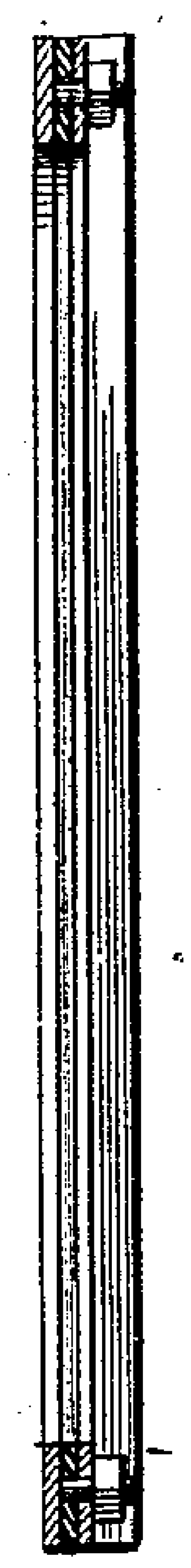
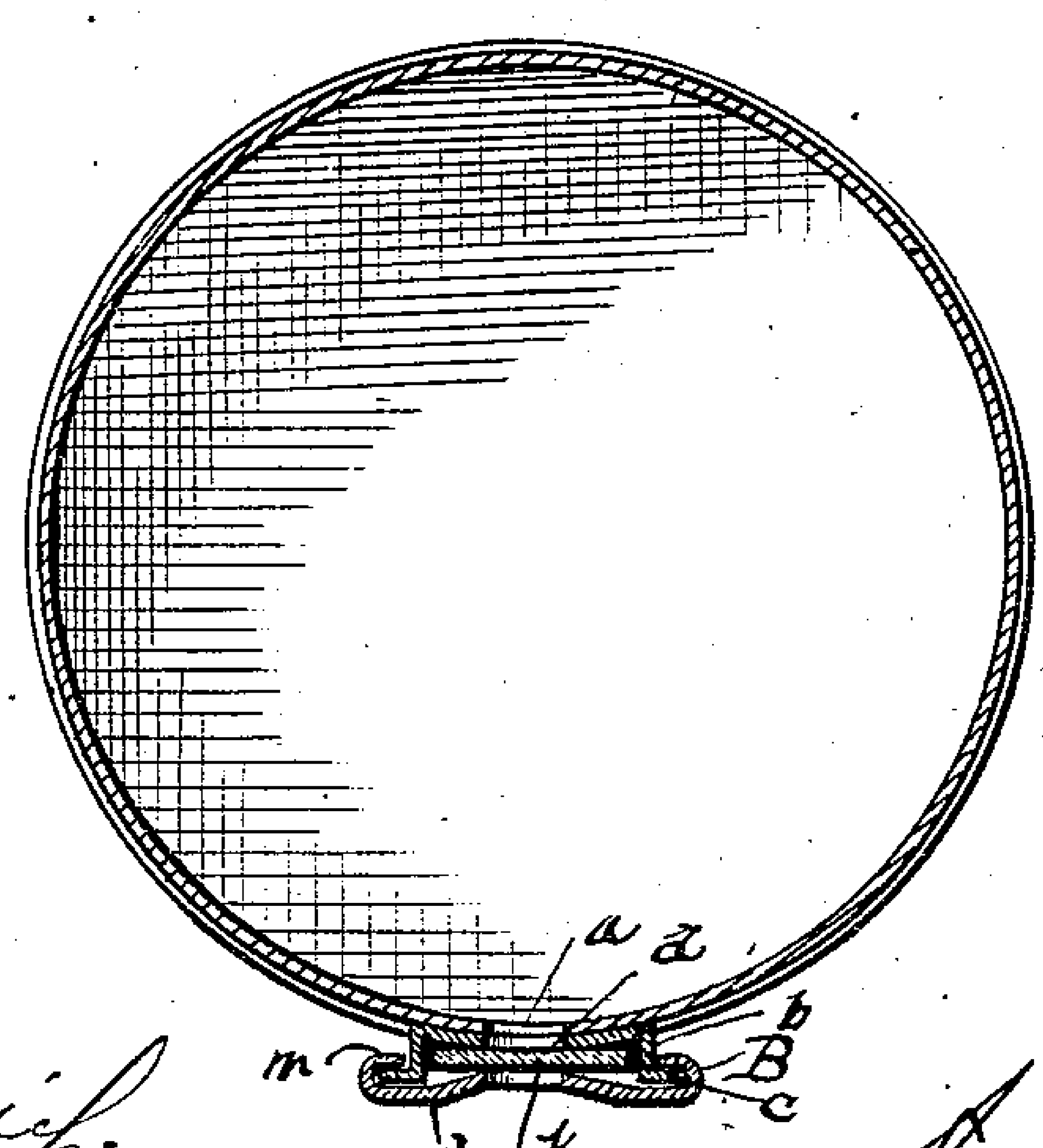


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

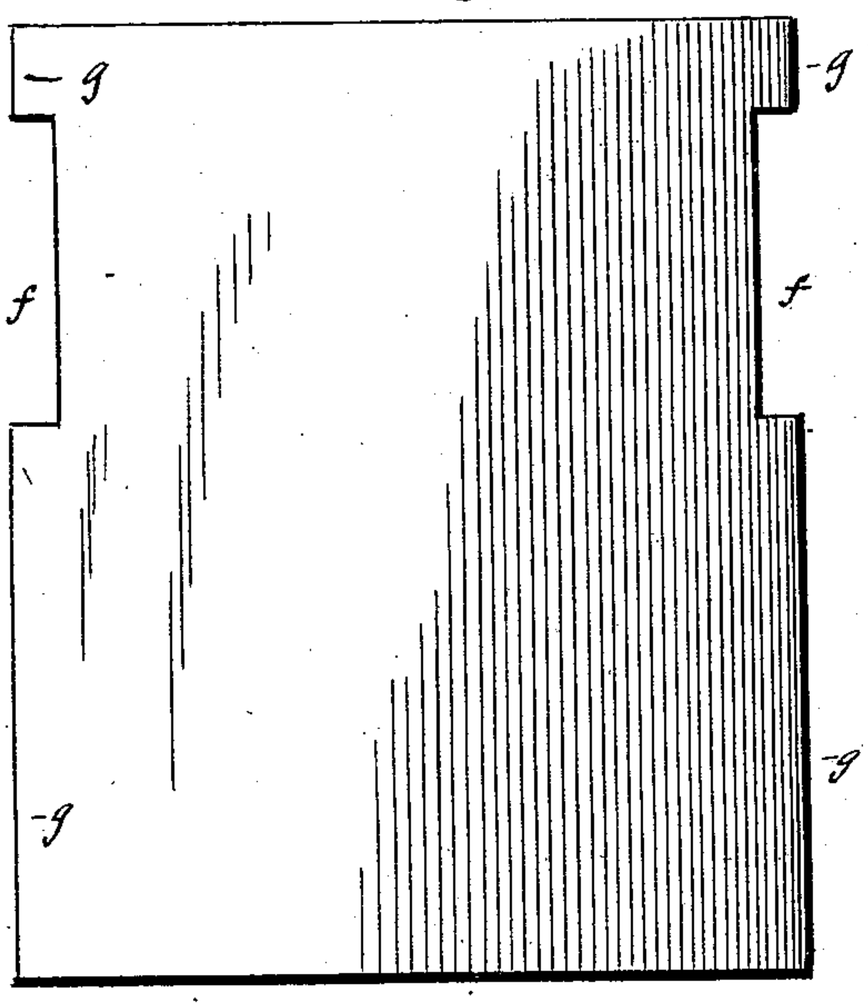


Fig. 5.

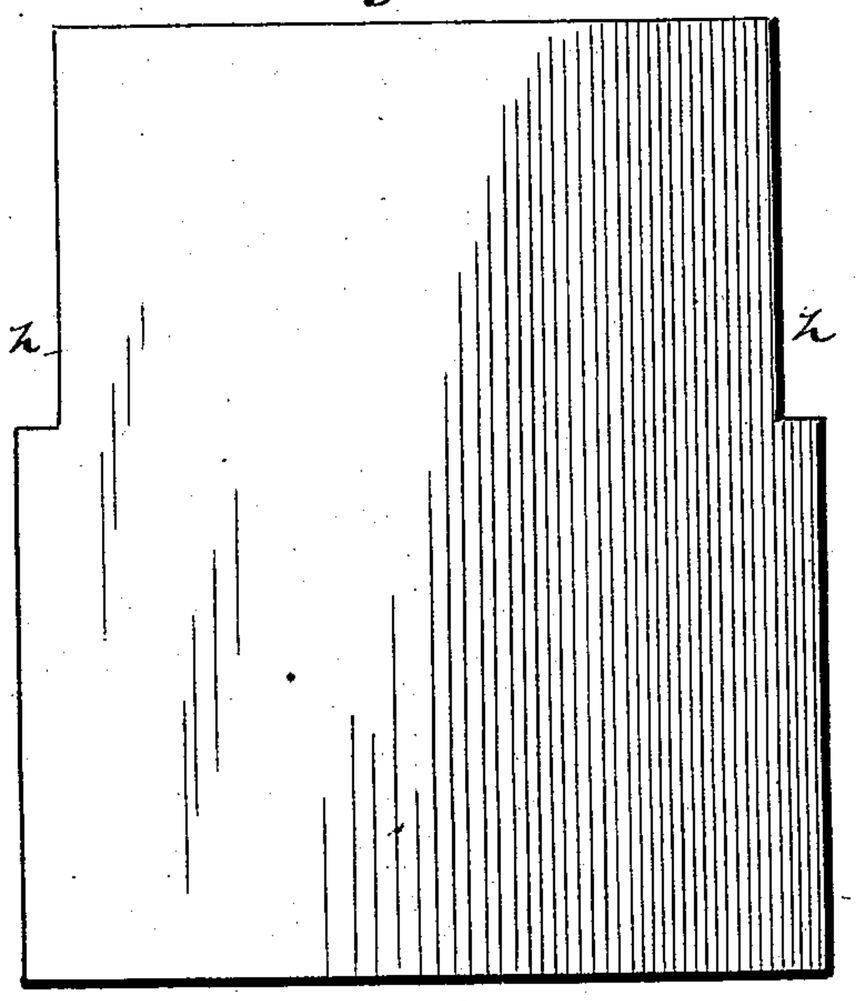


Fig. 6.

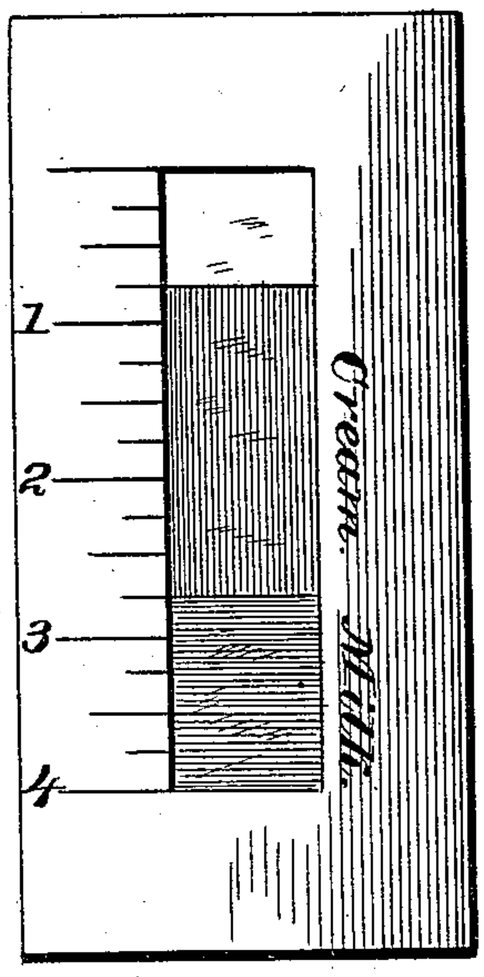
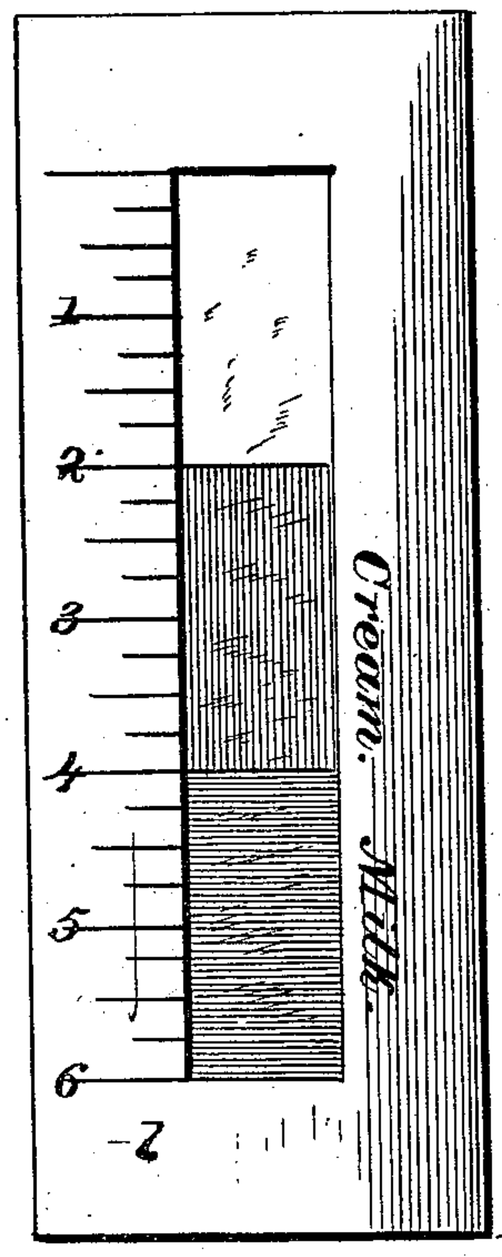


Fig. 7.



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UNITED STATES PATENT OFFICE.

ANDREW PETER PETREHN, OF NEW ALBIN, IOWA.

CREAM-GAGE.

SPECIFICATION forming part of Letters Patent No. 289,855, dated December 11, 1883.

Application filed April 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANDREW PETER PETREHN, a citizen of the United States, residing at New Albin, in the county of Allamakee and State of Iowa, have invented certain new and useful Improvements in Cream-Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to lactometers, the object of the said invention being to provide a cream-indicator for milk receptacles or cans which can be readily applied thereto, and one in which the glass gage can easily and quickly be substituted by another in case of breakage, and one by which the quantity of cream can be readily and easily ascertained without the computation of fractional inches.

Heretofore in this class of devices it has been usual to inclose the glass in a metallic case and solder the flanged edges of the case to the face of the can, thus hermetically sealing the glass, and necessitating the severing of the soldered joints when it was desired to replace or remove the glass in the event of breakage, and the graduated marks being upon a fixed or stationary piece or plate, an inconvenient and complex computation of fractional inches is often necessary in ascertaining the quantity of cream. I overcome these objections by the improved device fully described hereinafter.

In the drawings, Figure 1 is a perspective of a milk-can, showing my improvement applied thereto. Fig. 2 is a transverse section on the line 1 2, Fig. 1. Fig. 3 is a modification. Figs. 4, 5, 6, and 7 show blanks from which the can is made.

To one side of the can A, and immediately over an aperture, *a*, in said can, I secure, by soldering or otherwise, a metallic case or frame, B, having the two projecting sides *b b* turned outward on the front edges, so as to form the flanges *c c*, and provided with an aperture, *d*, arranged so as to register with the opening *a* of the can, and also provided at center of the top with a flat lip or projection, *e*, which, in the construction of setting-cans with lactometer or cream-gage attachment, greatly facilitates and simplifies the process of construction, reducing the labor and time required therefor, and obviating much trouble and inconvenience heretofore experienced.

Heretofore, in the construction of this class of goods, it has been necessary that the aperture *a* in the can should not extend to the top of the can, thus requiring in providing for the same that the top of the sheet of metal from which the can is to be made be left full above the slot or aperture *a*, as well as below it, that the edges of the sheet may join above and below the aperture.

Fig. 4 represents a flat sheet of metal cut in the usual manner for the walls or sides of the can, the slots *f f* forming the aperture *a* when the edges *g g g g* of the sheet are brought together to form the walls of the can.

Fig. 5 represents a flat sheet of metal cut suitable for the application of the case or frame B, with the lip or projection *e*, the slots *h h* being cut clean from the top of the sheet down to the bottom of the aperture *a*—a cut easily and speedily made as compared with the cut now required. The lip or projection *e* permits of this full, clear cut from the top of the sheet, as it (the projection *e*) extends up and covers the wire at the top of the can and the small opening left by this cut in the can above the indicator or gage. A glass gage or plate, *k*, is placed within the frame B, between the side pieces, *b b*, and retained therein by a packing of adhesive and water-proof composition or cement, and covered by a graduated face-plate, *l*, also perforated, and attached by grooves *m m*, formed by the inturned edges of the same, which fit over and play upon the flanges *c c*, as shown in Figs. 1 and 2, being thus held sufficiently secure when slid into position, and permitting the graduated plate *l* to be slid or moved up and down, so that in taking the measure of the number of inches of cream in the setting can or receptacle to which it is attached the full-inch mark may always be opposite one edge of the cream—*i. e.*, either the upper or lower edge of the body of cream—as exhibited in Fig. 7, thereby simplifying and facilitating the process of in-

dicating or measuring the cream. In lactometers now in use this graduated plate is fixed or stationary, and the body of cream may terminate at both upper and lower edge on fractional-inch marks, as shown in Fig. 6, necessitating a complex computation in ascertaining the quantity of cream.

From the foregoing it will be apparent that the glass can readily and easily be removed and replaced by another, when desired, without any soldering or unsoldering, and without any injury to or interference with the metallic case or frame B, and that it is effectually shielded by the face-plate *l* and the side pieces, *b b*, and that the marks indicating the cream being formed on the front face of the plate *l*, which is movable up and down by the grooves *m m* and flanges *c c*, simplifies and facilitates the measurement of the cream, and that the lip or projection *e* extending above the indicator materially aids in and reduces the labor and trouble of constructing setting-cans and lactometer or cream-gage combined; and that, the case or frame B being attached to the can with or by the full, flat surface of the case or frame, instead of by the flanged edges, as in the case of such devices now in use, no inaccessible opening or recess is left between the edges of the can at the aperture *a* and the indicator in which sour milk and filth may accumulate.

It will be apparent that the device is subject to modification and change without departing from the spirit of my invention.

Having now described my invention, what I claim as new is—

The combination, with a can having an opening, *a*, extending to the upper edge of the can, of a case, B, provided with a lip or projection, *e*, adapted to engage the top edge of the can, a glass gage arranged within the case B, and a sliding graduated plate adapted to engage flanges of said case, substantially as set forth.

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

ANDREW PETER PETREHN.

Witnesses:

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CHAS. A. PETREHN.