

No. 845,175.

PATENTED FEB. 26, 1907.

A. W. HUTCHINS.

BOTTLE.

APPLICATION FILED JUNE 20, 1905.

FIG. 1.

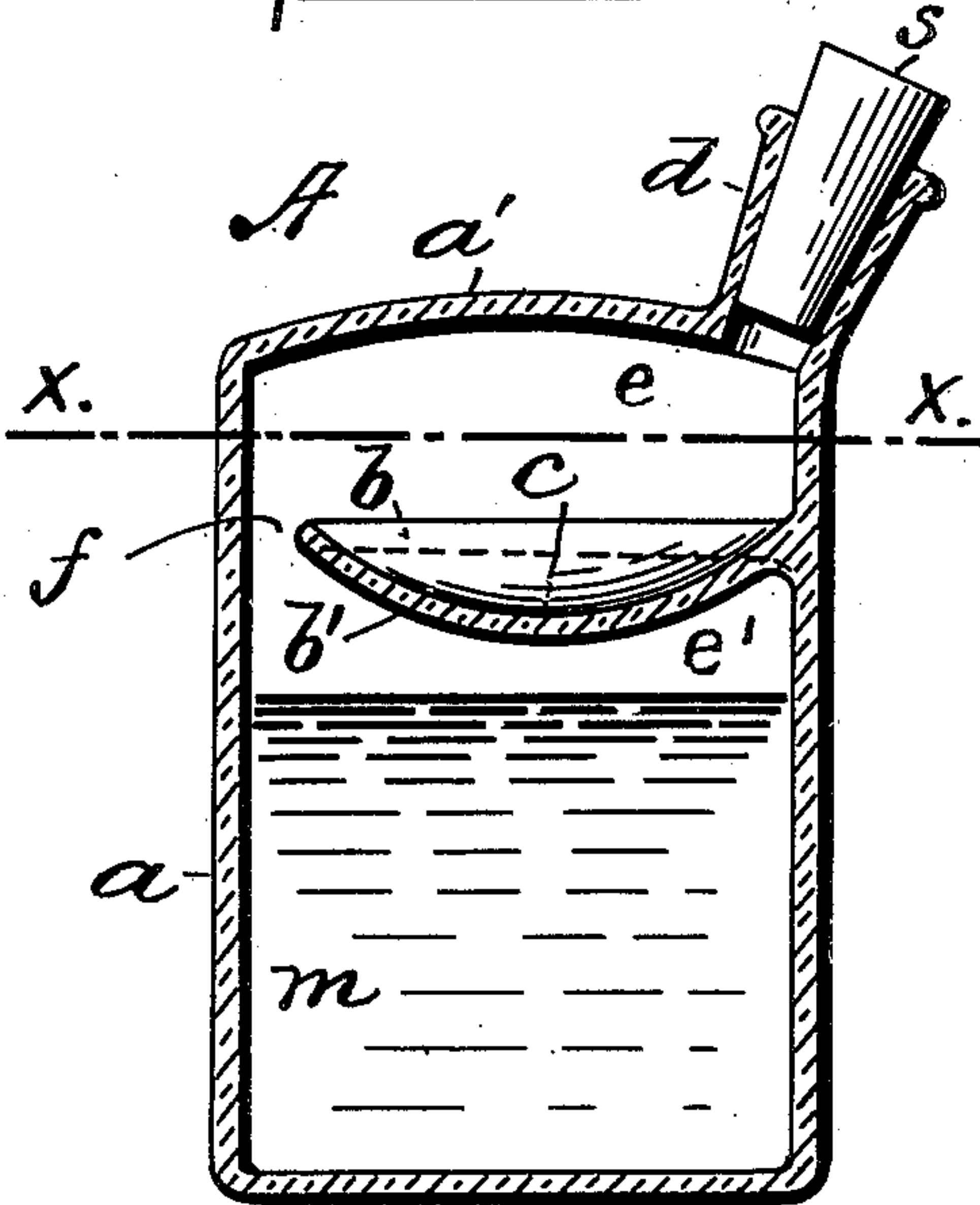


FIG. 3.

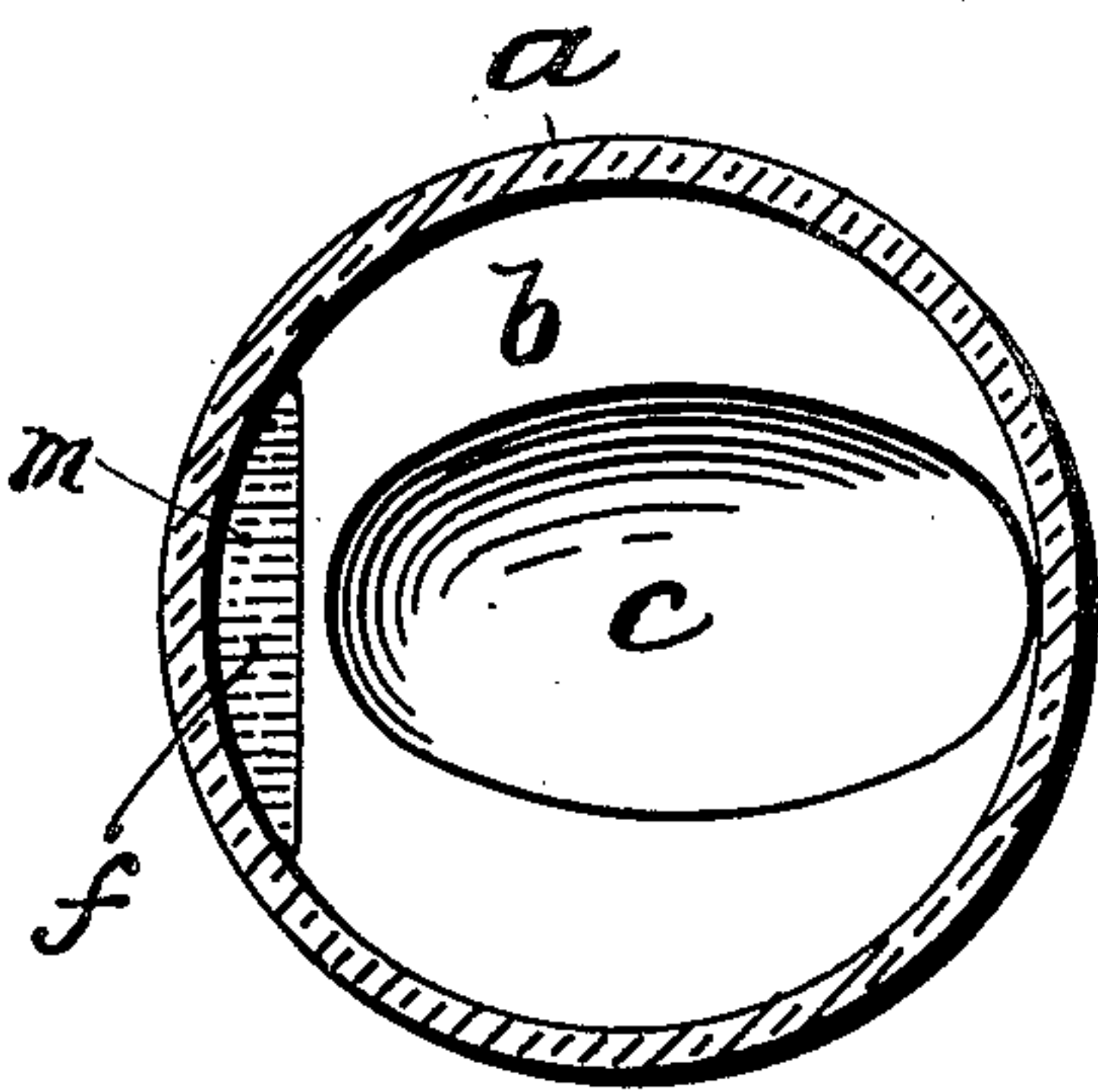
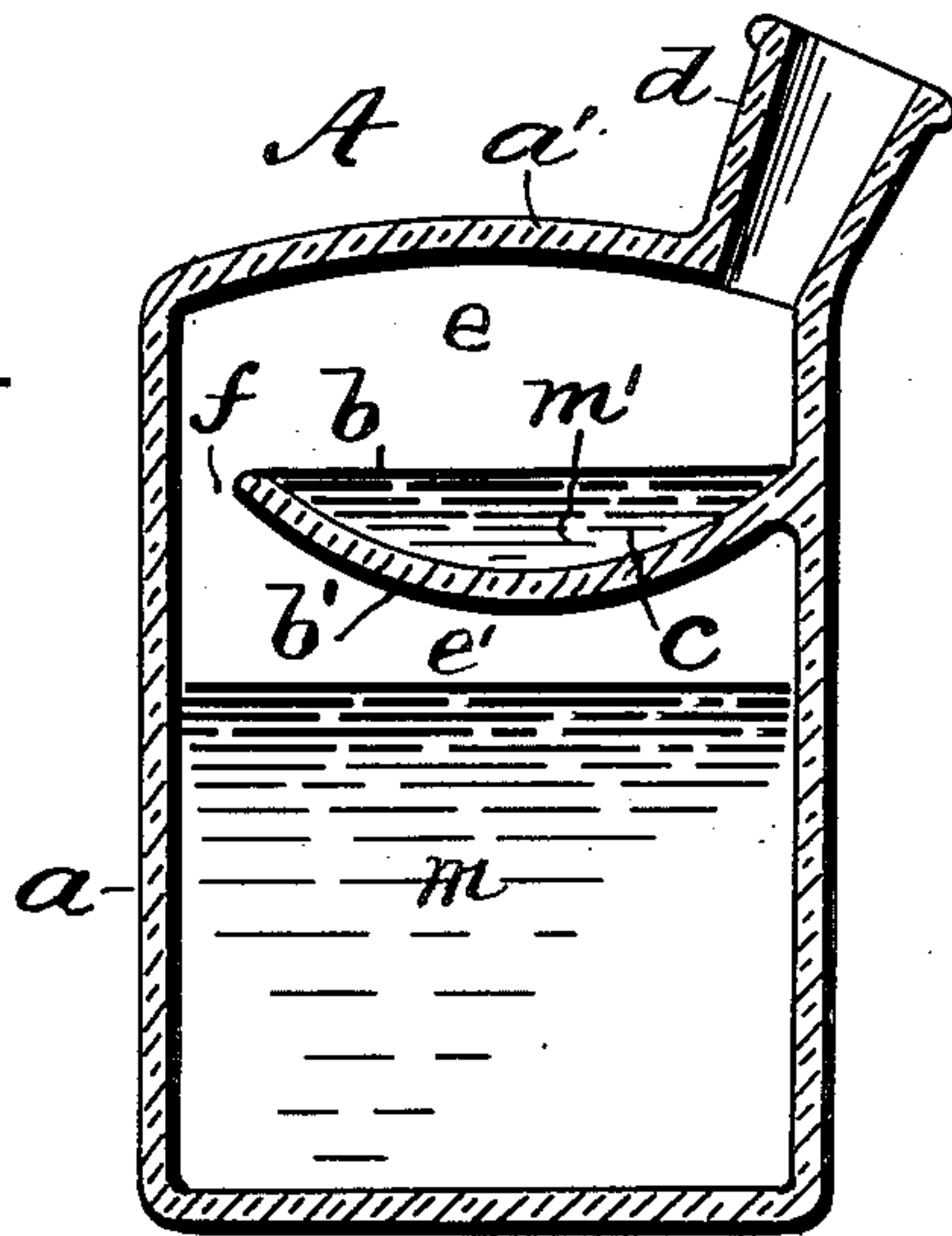


FIG. 2.

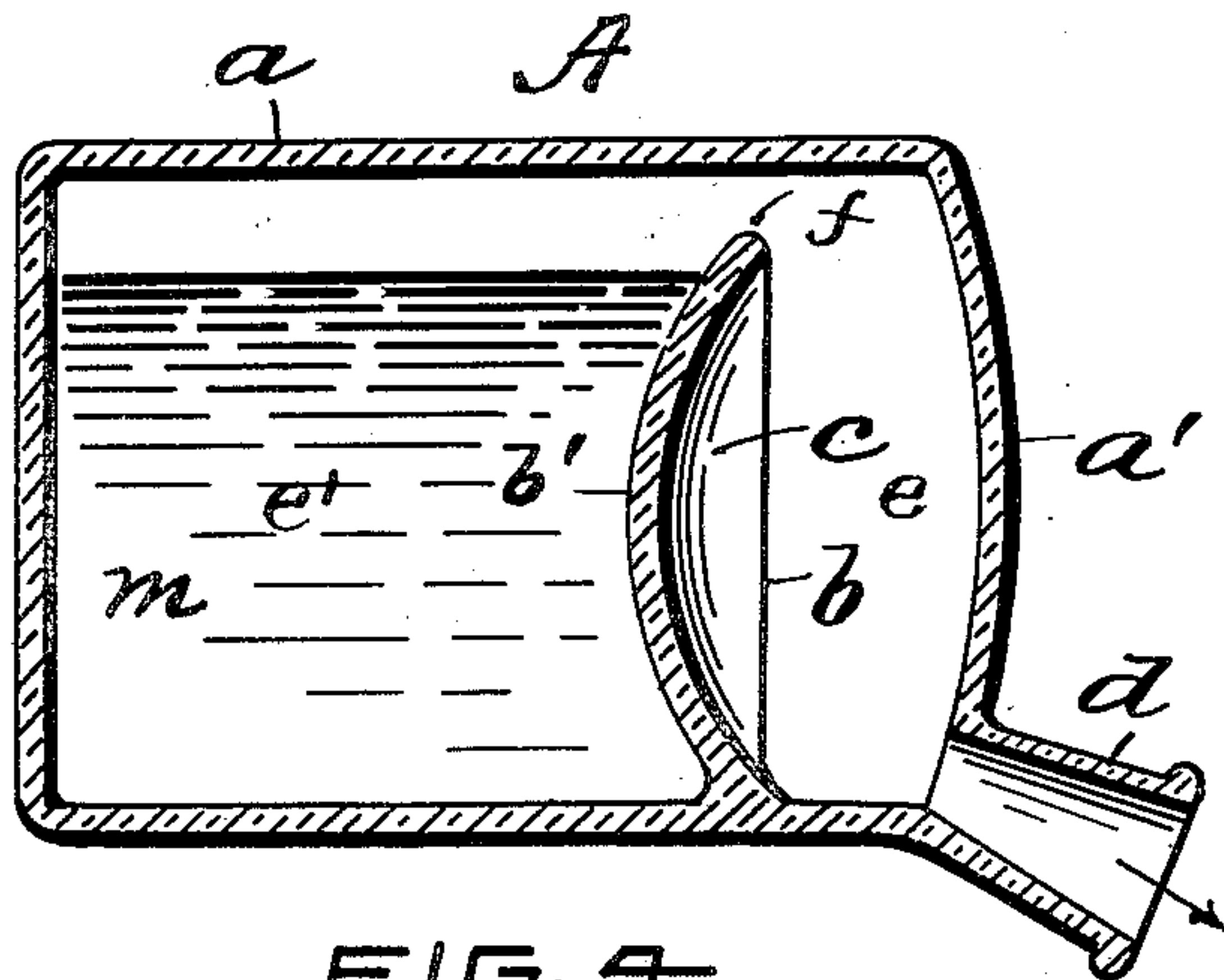


FIG. 4.

WITNESSES.

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BOTTLE.

No. 845,175.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed June 20, 1905. Serial No. 266,108.

To all whom it may concern:

Be it known that I, ARTHUR W. HUTCHINS, a citizen of the United States of America, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

My invention relates to new and novel improvements in combined liquid containers or carriers and measurers.

The object I have in view is to provide the interior of bottles or packages for holding liquids with self-contained or integral means constructed and arranged to automatically measure any exact predetermined quantity or dose—as, for example, the equivalent of a spoonful—from the contents of the bottle and also arranged to freely dispense or deliver said dose through the neck or nozzle of the bottle, the unmeasured liquid therein at the same time being temporarily held in check and prevented from escaping.

My improved bottle may be successfully and readily substituted in lieu of employing independent measuring means, such as spoons, graduates, &c.

The device is simple, comparatively inexpensive, durable, not wasteful of the liquid, and ever ready for service, since it forms a part of the bottle itself containing the medicine or liquid to be dispensed therefrom in successive doses whenever and as often as desired and until the bottle is completely emptied of its contents. The bottle can be readily cleansed and reused without any change whatever, as no movable or independent members are employed.

In my improved bottle the body portion thereof is provided interiorly with a concave partition located below the upper end and extending laterally part way across the bottle, thus forming a dose-measuring cavity having, say, a spoon-like form and capable of retaining the dose therein when the bottle is in the normal upright position.

The manner of filling or charging my improved self-measuring dose-dispensing bottle with liquid is the same as practiced in filling an ordinarily constructed bottle—that is to say, the fluid is introduced through the unstoppered neck or nozzle.

In the accompanying drawings, Figure 1 represents in central horizontal section a bottle or container embodying one form of my improvement, the bottle being partly filled with liquid. Fig. 2 is a horizontal or cross-sectional view taken on line $x x$ of Fig. 1, showing the partition provided with a measuring-cavity. Fig. 3 is a sectional view similar to Fig. 1, showing the self-measuring partition or member filled with the liquid; and Fig. 4 represents the bottle tipped on its side to allow the said measured quantity of liquid or dose to flow from the bottle, the stopper being first removed.

I would state that the drawings represent my improved bottle or liquid-container A in practically the simplest form. The shell or body a may have any suitable shape and capacity and be provided with a top, as a' , having a suitable neck or discharge-nozzle d , adapted to receive a cork or stopper s . The nozzle is in continuous open communication with the reservoir of the bottle, both for charging and discharging. As drawn the nozzle is located at one side or edge of the bottle, although it can be centrally arranged and symmetrical.

Within the body a of the bottle is permanently located, preferably near the top, a partition or element b , the same being integral with the walls or secured thereto so as to form a tight joint. As drawn, said partition is substantially horizontal or flat and is depressed at the center or diametrically to form a recess or cavity c , its shape and capacity being equal to that of the bowl of a teaspoon, the material b' being correspondingly curved and substantially uniform in thickness throughout.

At one side of the bottle and diametrically opposite the nozzle d the partition b is cut away or otherwise adapted to form a comparatively small aperture or passage-way f . (See also Fig. 2.) This opening is at all times in direct open communication with the upper and lower chambers or spaces $e e'$, respectively, of the reservoir and separated by the interposed partition, as clearly shown.

The bottle A may be made of glass or other suitable material or substance.

The bottle is charged through the nozzle, as usual. The liquid contents m should not,

however, when normally filled stand in the upper chamber *e* or above the top of the partition *b*. In order to measure up a dose or predetermined quantity of the liquid *m* and dispense the same from the bottle, the latter is suitably tipped or inverted, thus allowing a portion of the liquid to then flow readily and downwardly through the passage *f* into the chamber *e*. The bottle is next returned to the normal position, the surplus liquid meanwhile flowing back, via said passage, from the upper into the lower space *e'*, thereby leaving the measuring-cavity *c* level full and constituting the dose or charge *m'*, Fig. 3, to be delivered from the bottle. Now upon removing the stopper *s* and inclining or tilting the bottle sufficiently, at the same time keeping the nozzle or outlet *d* lowermost, the dose *m'* will readily flow from the cavity *c* and through said outlet by gravity. While the measured liquid is being thus dispensed the part remaining in chamber *e'* is kept in check or prevented from escaping by the standing partition *b*. (See Fig. 4.)

By means of my improved bottle it will be seen that it is clearly possible and practicable to accurately and automatically measure up within the body portion thereof a predetermined quantity of its liquid contents and discharge the same therefrom without waste and at the same time without the admixture therewith of the liquid contained in the main chamber *e'*. This feature I consider a very valuable part of my invention.

I claim as new and desire to secure by United States Letters Patent—

1. As an improved article of manufacture, a self-measuring dose-dispensing bottle having its body portion provided interiorly with a concave dose-measuring partition located contiguous to and below the upper end of the bottle and extending part way across the same, whereby the dose may be retained in said partition when the bottle is in the normal upright position.

2. The combination with a bottle or container, of a substantially horizontal inner partition or member integral with the walls of the bottle having a measuring-recess formed therein and provided with a small passage-way in continuous open communication with the upper and lower portions of the bottle.

3. The combination in a bottle provided with a stoppered nozzle, of a depressed or recessed interior partition integral with the walls of the bottle and disposed at substantially right angles or perpendicular thereto, said partition being located contiguous to the nozzle and having a passage-way there-through for the flow of the fluid contents in either direction.

Signed at Providence, Rhode Island, this 19th day of June, 1905.

ARTHUR W. HUTCHINS.

Witnesses:

GEO. H. REMINGTON,
CALVIN H. BROWN.