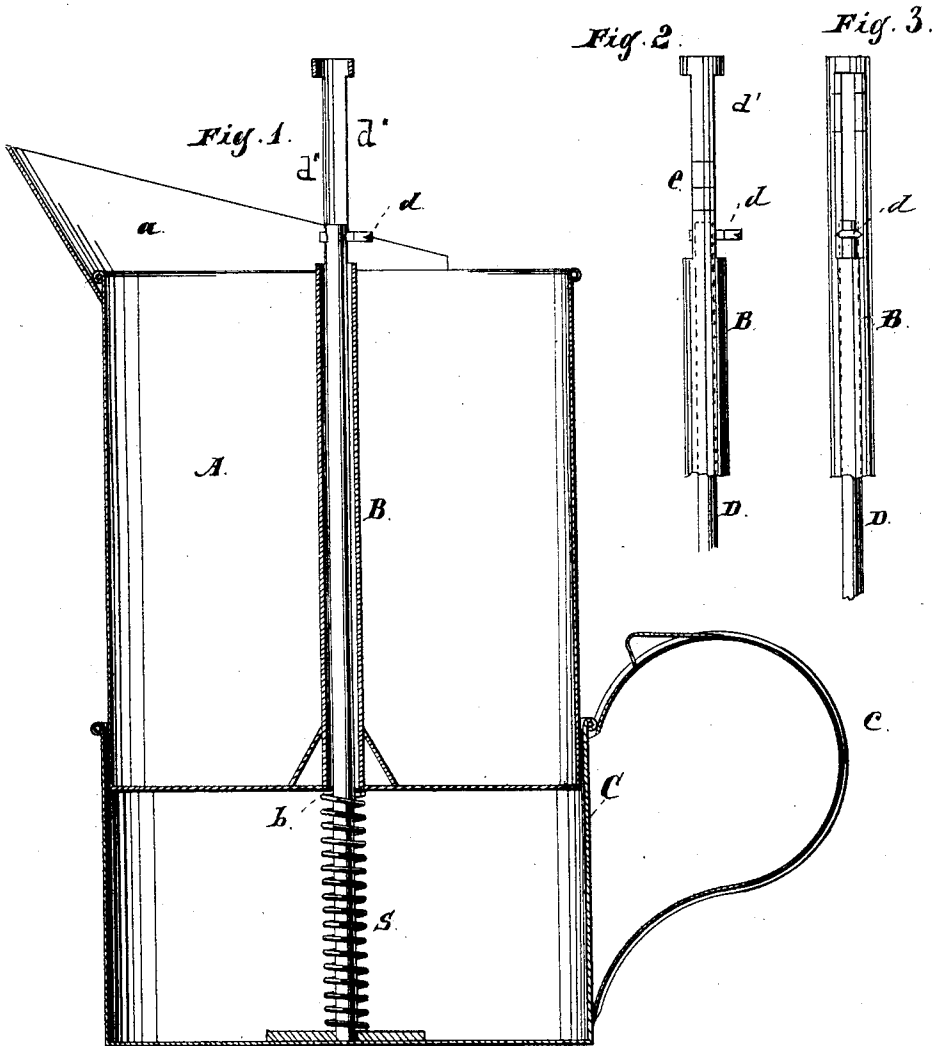


C. G. CROSS.

Device for Weighing Fluids.

No. 223,999.

Patented Feb. 3, 1880.



Witnesses:

Heur. F. Bruns,
O. W. Bond -

Inventor:

Christopher G. Cross
By Heur. F. Bruns, Atty.

UNITED STATES PATENT OFFICE.

CHRISTOPHER G. CROSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO LOUIS
SASS, OF SAME PLACE.

DEVICE FOR WEIGHING FLUIDS.

SPECIFICATION forming part of Letters Patent No. 223,999, dated February 3, 1880.

Application filed July 14, 1879.

To all whom it may concern:

Be it known that I, CHRISTOPHER G. CROSS, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Devices for Weighing Fluids for retailing, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section; Fig. 2, a detail; Fig. 3, a detail.

It is customary to retail ale and beer by the quart, or in other small quantities larger than a single glass. The quantity of foam is usually so great that it is almost impossible to measure such fluids with accuracy.

The leading object of this invention is to enable the retailer of foaming liquids to furnish the desired quantity accurately and easily; and this I accomplish by combining a receptacle for the fluid with devices for weighing the same, as hereinafter fully described.

In the drawings, A represents a receptacle, made in the form of an ordinary measure, having a lip, *a*, but no handle. Its capacity should be such that it will hold more than the largest quantity to be weighed in it, in order to allow for the foam. In the center of the bottom of the receptacle A is a small hole, *b*.

B is a tube secured to the inside of the bottom of the vessel A, and around the hole *b*.

C is a cup large enough to receive the receptacle A. It has a handle, *c*.

D is a post secured to the center of the bottom of the cup. *d* is an index in the upper end of the post D. This index passes through a slot in the upper end of the tube B. As shown, this tube B is slotted on two sides, the slots *d'* being of considerable length.

When the receptacle A is empty and all parts are in their normal position the index or pin *d* will be near the lower end of the slots, as shown in Fig. 1. The pin *d* also serves the purpose of preventing the receptacle A from slipping off from the post D when the contents of the receptacle are being emptied.

S is a spring encircling the post D. The receptacle A rests on this spring.

The upper end of the tube B is graduated, as shown at *e*, to indicate, in connection with the index or pin *d*, the quantity of fluid, by weight, in the receptacle A. For ale and beer it will be sufficient to indicate pints.

The pin *d* is to be inserted in the post D after the receptacle A has been placed thereon.

The operation is as follows: As fluid is poured into the receptacle A the spring S will be compressed, and the dealer, by observing the graduated scale and index *d*, can tell when the desired quantity, by weight, has been poured into A, the quantity of foam not interfering at all with the accurate measurement, by weight, of the contents of A. The contents of A can be poured out in the same manner as from an ordinary measure.

If it becomes necessary to clean the inside of the cup C, the receptacle A can be removed therefrom after removing the pin *d*.

It is not necessary that the cup C be close. Any base which will suitably support the post D may be used.

Instead of a single post, D, and tube B, two or more posts and tubes or guides might be used, being located upon the outside of the receptacle A; but I prefer the construction shown.

The graduated scale might be on the outside of the receptacle A, the top of the cup C taking the place of the index *d*; or a strip could be secured to the cup to serve as an index.

While the device is primarily designed to be used for weighing foaming liquids which cannot be easily accurately measured, it can be used for liquids which do not foam; but for such fluids it has no special utility, as they can be readily and accurately measured in the ordinary way.

What I claim as new, and desire to secure by Letters Patent, is as follows:

The combination of the receptacle A, having the slotted tube B, with the base C, spring S, post D, and pin *d*, substantially as and for the purpose specified.

CHRISTOPHER G. CROSS.

Witnesses:

E. A. WEST,
O. W. BOND.