

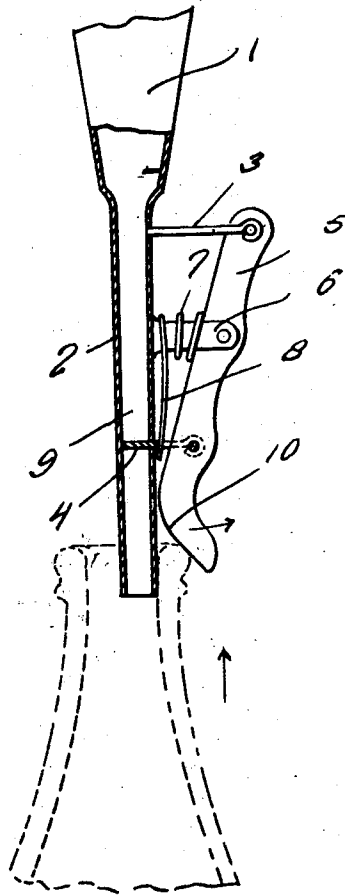
June 21, 1927.

1,633,343

C. E. MILLER

SUGAR GAUGE

Filed May 11, 1925



Inventor
C. E. Miller,

384

Harold C. Smith
Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. MILLER, OF DETROIT, MICHIGAN.

SUGAR GAUGE.

Application filed May 11, 1925. Serial No. 29,479.

This invention relates to an improved gauge, which is especially, but not necessarily, designed for measuring and delivering a small given amount of sugar into a container.

The invention has more particular reference to a comparatively small gauge which is designed for cooperation with the neck of a commonly known beer bottle, the same being adapted to deliver a predetermined quantity of sugar into the bottle to mix with a beverage subsequently placed in the bottle.

More precisely, the invention has reference to a gauge which comprises a relatively small funnel carried by a delivery tube, this tube being provided in one side with slots through which valve plates pass, these plates being carried on the ends of a spring pressed lever which is mounted intermediate its ends on the exterior of the tube.

An important feature of the construction outlined is the cam formulated at the lower end of the lever, this cam being adapted to cooperate with the bead on the neck of the bottle to automatically open the lower valve plate when the device is pressed downwardly and into the bottle.

Other features and advantages of the invention will become apparent from the description and drawing.

In the accompanying drawing forming a part of this application, and in which like numerals are employed to designate like parts throughout the same:

The figure represents a sectional and elevational view of a gauge constructed in accordance with the present invention showing the approximate manner of associating the same with the neck of a common beer or beverage bottle.

Referring to the drawing in detail, the reference character 1 designates a funnel which may be of any appropriate length and of any cross sectional area. Connected with and depending from the discharge end of the funnel is a delivery tube 2 which is preferably rectangular in cross section. As before intimated, this tube is provided in one side with vertically spaced slots, and a pair of flat valve plates 3 and 4 are adapted to extend through these slots into the interior of the tube to act as valves. The upper valve plate 3 is pivotally connected to the corresponding ends of a lever 5, this lever being pivoted between its ends on a lug 6 extending right angularly from the center of

the tube 2. The valve plate 4 is pivoted to the lever at a point between the lower end and center as shown in the drawing. In this connection I would point out that a coiled spring 7 surrounds the lug 6, and has an extended resilient arm 8 cooperable with the bifurcated end of the valve plate 4, whereby to automatically maintain the lever in inclined position shown with the valve plate 4 projecting into and preventing the discharge of the contents from the tube 2. The plates 3 and 4 are a predetermined distance apart, and by this arrangement a substantial chamber 9 is provided on the interior of the tube at a point determined by the valve plates 3 and 4. A predetermined quantity of sugar is adapted to be contained in and discharged from this chamber.

It is to be noted that the free lower end of the lever 5 terminates in inwardly spaced relation from the adjacent end of the delivery tube 2. Also, this end of the lever is directed to extend at an acute angle from the body portion and the inner edge 10 is curved somewhat to act as a cam edge, this being adapted for cooperation with the end of the neck in the approximate manner shown.

In practice, the device is placed upon the neck of the bottle in the manner shown, and assuming that the chamber 9 has been filled with sugar, it will be seen that by placing the discharge end of the delivery tube of the neck in the manner to bring the cam edge 10 into engagement with the bead, by exerting a downward pressure on the device, the valve plate 4 will be withdrawn against the tension of the spring, while the valve plate 3 will be forced inwardly simultaneously. In this way the predetermined quantity of sugar from the chamber 9 will discharge through the tube and into the bottle. Thus, a predetermined amount of sugar may be accurately and conveniently placed in the bottle so as to provide the proper portion for the beverage to be subsequently placed in the bottle. It is of course understood that if it is desired, the cam action need not be depended upon for opening the lower valve plate, for this can be done by placing the finger against the upper end of the lever 5, and forcing it inwardly toward the discharge tube.

It is thought that the foregoing description taken in connection with the drawings will enable persons skilled in the art to

which the invention relates to obtain a clear understanding of the same. For this reason a more lengthy description is thought unnecessary.

5 While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

10 Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

A gauge of the kind described comprising a delivery tube, said tube being provided
15 at one side with vertically spaced openings, valve plates disposed and movable in said

openings and adapted to alternately project into the interior of the tube, and a spring influenced lever pivotally connected with and arranged alongside of the tube and
20 connected with said valve plates and terminating adjacent to the delivery end of the tube in a portion disposed normally at an acute angle to the outer side of the tube, whereby when the end of a bottle wall is
25 interposed between the tube and said terminal portion of the lever, the lever will be rocked to open the lower valve plate and close the upper valve plate.

In testimony whereof I affix my signature.

CHARLES E. MILLER.