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REGISTER CLOSURE FOR BOTTLES

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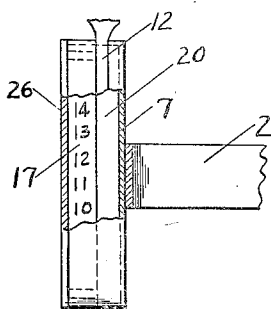
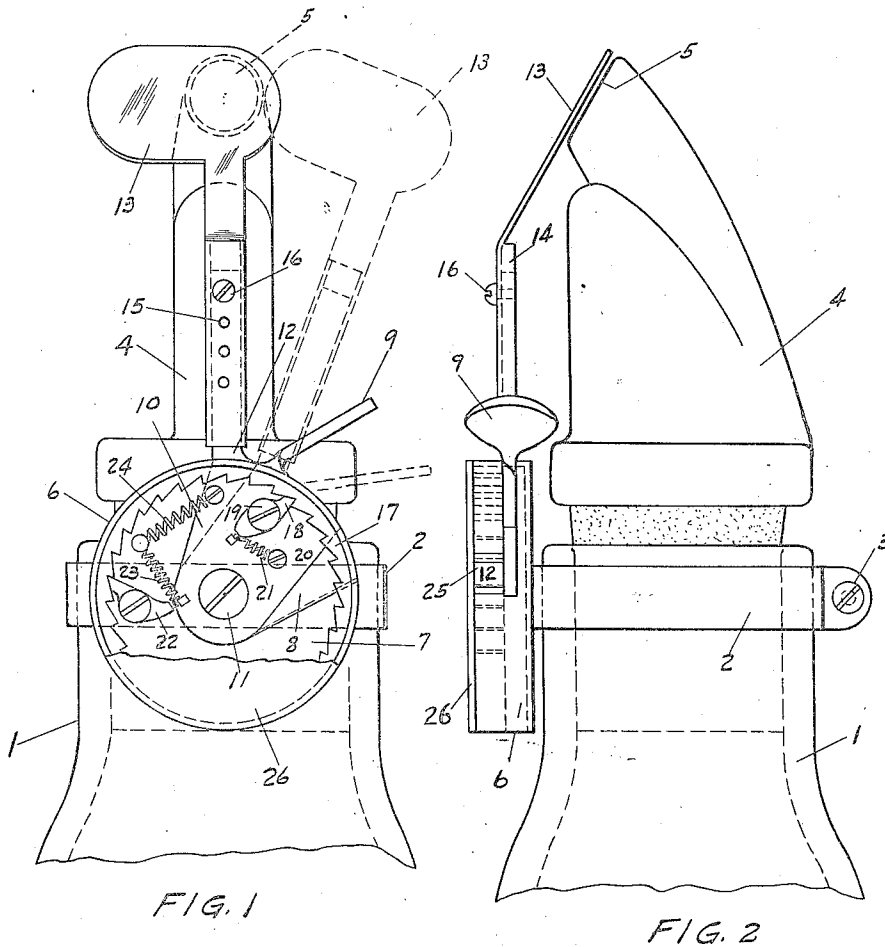


FIG. 3

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REGISTER CLOSURE FOR BOTTLES

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2 Claims. (Cl. 235-94)

This invention relates to register closures adapted particularly for attachment to liquor bottles for the purpose of registering the number of times that liquid is poured from the bottle.

A principal object of the invention is to provide a device of this character which is universally adaptable for use in conjunction with bottles having different sized necks so as to enable transfer of the same register closure from one bottle to another.

Another object of the invention is to provide a register closure device of the character described which is universally adaptable for use in conjunction with different sizes and designs of pouring spouts which may be placed in the necks of such bottles, without requiring any change either in the design of the pouring spouts already available or in the design of the register closure when it is to be used with another pouring spout.

Another object of the invention is to provide a register closure device of the character referred to including means for detachably securing the same to bottles having necks of different sizes and in which the actuating means for the registering mechanism includes a part which normally lies adjacent to and exteriorly of the outlet opening of the bottle (or the outlet opening of a pouring spout used in conjunction with such bottle) so as normally to lie in the path of passage of liquid from the bottle, said portion being movable out of the path of passage of liquid from the bottle upon actuation of the registering mechanism and automatically restorable to its normal position upon release of the actuating means.

Another object of the invention is to provide a device of the character referred to in which the portion of the actuating means for the register mechanism which normally lies in the path of flow of liquid from the bottle is adjustable or flexible to enable it to lie either directly over the outlet opening of a bottle or to lie over the outlet opening of an auxiliary pouring spout which may be placed in the neck of such bottle, said portion being adjustable to conform with the outlet opening of pouring spouts of different lengths or sizes.

Register closure devices for bottles have been heretofore proposed, but such devices have comprised closures intended for insertion in the neck of a bottle and hence usable only with a bottle having a neck of the particular size and shape for which the closure is designed. Previously proposed constructions, furthermore, have availed of enclosed valve means associated with the actuating means for the registering mechanism.

This is disadvantageous and impractical because either necessitating parts subject to rust from which moisture cannot be removed or providing a source of leakage of liquid into the registering mechanism, through the means interconnecting the valve and the actuating mechanism, with similar disadvantageous results involving inability to remove liquid leaking into the registering mechanism and a tendency to produce rusting of the parts thereof.

The present invention overcomes the foregoing difficulties and provides a device which is universally adaptable and which is simple in construction and economical to manufacture.

In the drawing:

Figure 1 is a view showing the device supported on the exterior of the neck of a bottle, illustrating in detail the mechanism of the register device.

Figure 2 is a side view of the device showing the relationship of certain portions of the device with one form of auxiliary pouring spout.

Figure 3 is a detail sectional view, partly fragmentary, showing the indicia ring availed of in the mechanism.

Referring to Figures 1 and 2 particularly, the device is shown as being supported adjacent the mouth of a bottle 1, by means of a clamping member 2, substantially circular in shape, adapted to have its ends adjustably engaged with the neck of the bottle by means of a screw 3 suitably threaded in one end of the clamping member 2, the shank of the screw passing through the other end of the clamping member.

One form of auxiliary pouring spout 4 is illustrated suitably supported in the interior of the neck of the bottle, and includes a pouring portion with a substantially circular opening 5 therein, adapted to direct liquid or other material into a suitable vessel when the contents of the bottle 1 is being poured.

The register device itself comprises a substantially cup-shaped housing 6, including a rear wall 7. The said rear wall 7 has a segmental indentation 8 therein, adapted to receive a segment member of the lever 9, the segmental indentation of the back being formed so as to permit movement of the segment member 10 of said lever about a pivotal point determined by the screw 11 threaded into the rear wall 7 of the housing and rotatably supporting the member 10.

Extending upwardly from one edge of the member 10 is an arm 12 preferably integral with the segment member 10, adapted to have suitably fixed adjacent its outer end the closure portion

13 of the device. The said closure portion includes channel portions 14 adapted to engage the side edges of the member 12. The member 12 is provided with any preferred number of threaded openings 15, adapted to receive therein the screw 16 by which the closure portion 13 is fixed to the arm 12, so as to enable the adjustment of the member 13 for different types of auxiliary pouring spouts 4.

Interiorly of the cup-shaped member 6 a toothed indicia ring or ratchet 17 is provided adapted to be rotated in the housing by means of a ratchet and pawl mechanism of generally conventional construction, the pawl 18 being supported on the segment member 10 by means of a screw 19 and adapted to be held in engagement with the toothed portions 20 of the indicia ring by means of a spring 21. A pawl 22 is provided and adapted to engage the teeth 20 of the indicia ring by means of a spring 23.

A suitable spring 24 is availed of to return the segment member 10 to its non-dispensing position, after the dispensing operation has been effected by movement of the lever 9. The ratchet and pawl mechanism, of course, is adapted to move the indicia ring in a clockwise direction by means of the engagement of the pawl 18 with the teeth 20 in a step by step manner in accordance with conventional operation of this type of ratchet construction. A suitable cover 26 is provided to fully enclose the ratchet and pawl mechanism first described.

In the wall of the cup-shaped member 6 a suitable opening 25 is provided, as shown in Figure 2, so as to enable the person dispensing the liquid from the bottle to discern the indicia located on the periphery of the indicia ring 17, Figure 3 showing in more detail the location of the respective indicia on the ring 17, and the relationship of the same with the segment member 10.

As will be apparent from consideration of Figure 1, when the lever 9 is operated, the closure member 13 will move out of position over the opening 5 in the pouring spout 4, and permit the pouring of the liquid into a glass or other place. Upon release of the lever member 9 by the operator, the spring 24 will return the closure member 13 over the pouring opening 5, and while it is not necessary that the member 13 prevent absolutely the leakage of any of the contents of the bottle, it is essential that it at least prevent the accurate pouring of the same, whereby it is necessary to actuate the lever 9 to properly perform the pouring function of the pouring spout 4.

It will be apparent that the closure member 13 is susceptible of being bent in various directions by reason of the construction thereof, so that the particular device is not limited to use with the particular pouring spout 4, illustrated, but may be used with many different types of pouring spouts.

In addition, the clamping means 2 is adjustable so as to enable the attachment of the registering mechanism to bottles having necks of different sizes. The mechanism is particularly suited to its use in connection with dispensing bottles of the type described by reason of the fact that the operating parts thereof are in no danger of coming into contact with the liquid dispensed from the bottle, and, therefore, oper-

ation of the mechanism can in no way be affected by rust or other foreign matter entering the same.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the class described, in combination, registering mechanism including a lever adapted to be manually actuated and connected with said registering mechanism for operating the same, means for detachably securing said registering mechanism to a bottle or the like container adjacent the outlet opening thereof, means associated with said lever and having a portion movable transversely across said opening exteriorly thereof and normally positioned adjacent to and exteriorly of the outlet opening of said bottle, whereby said portion will normally lie in the path of passage of liquid from said bottle, said portion being movable laterally of the opening out of the path of passage of liquid from the bottle upon actuation of said lever to operate the registering mechanism, and means for automatically restoring said portion to its normal position upon releasing the lever from actuating engagement, the second means including an arm fixed with respect to said lever, and said portion comprising a member slidable longitudinally of said arm, means for locking said member in different fixed positions relative to said arm, whereby said portion is adjustable conformably to different lengths of auxiliary pouring spouts emplaceable in the outlet opening of such bottle whereby said portion will be positioned normally adjacent to and exteriorly of the outlet opening of such spout so as to lie in the path of flow of liquid from such spout.

2. In a device of the class described, in combination, registering mechanism including a lever adapted to be manually actuated and connected with said registering mechanism for operating the same, means for detachably securing said registering mechanism to a bottle or the like container adjacent the outlet opening thereof, means associated with said lever and having a portion movable transversely across said opening exteriorly thereof and normally positioned adjacent to and exteriorly of the outlet opening of said bottle, whereby said portion will normally lie in the path of passage of liquid from said bottle, said portion being movable laterally of the opening out of the path of passage of liquid from the bottle upon actuation of said lever to operate the registering mechanism, and means for automatically restoring said portion to its normal position upon releasing the lever from actuating engagement, the second means including an arm fixed with respect to said lever, and said portion comprising a member slidable longitudinally of said arm, means for locking said member in different fixed positions relative to said arm, and said member being flexible so that it may be bent to different positions about an axis transversely of the longitudinal axis of movement of said member relative to said arm, whereby said portion is adjustable conformably to different lengths of auxiliary pouring spouts emplaceable in the outlet opening of such bottle whereby said portion will be positioned normally adjacent to and exteriorly of the outlet opening of such spout so as to lie in the path of flow of liquid from such spout.

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