Jan. 25, 1955 W. E. WAGNER 2,700,510

BOTTLE BREAKING DEVICE

Filed June 12, 1953

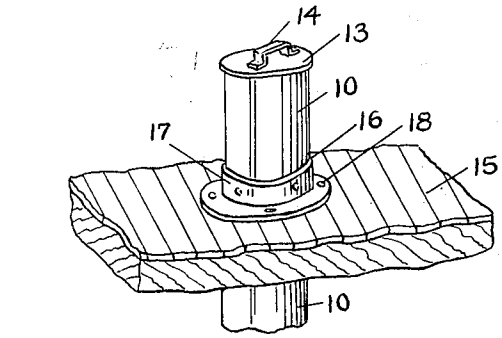
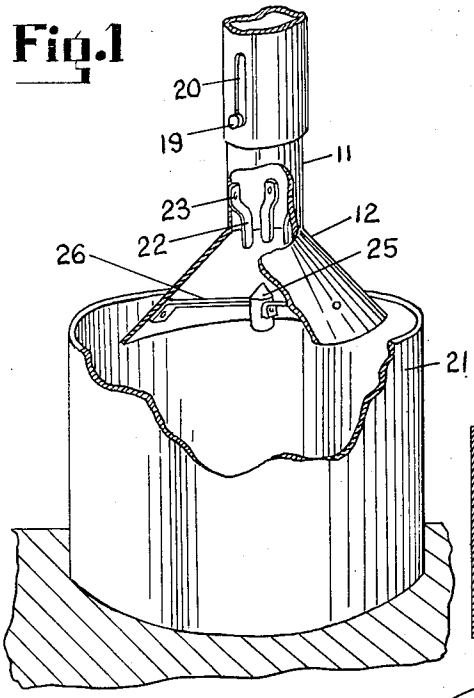


Fig. 1



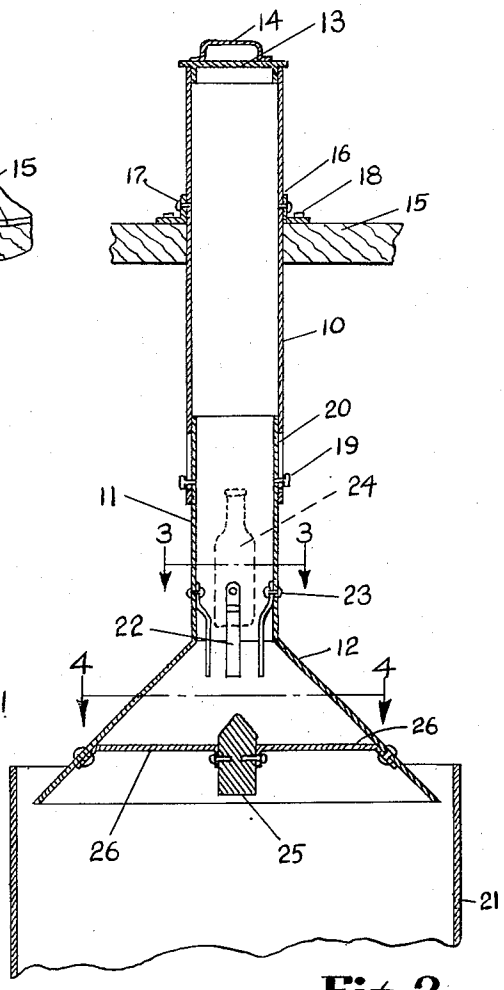


Fig. 2

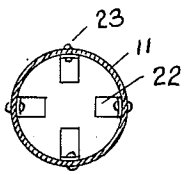


Fig. 3

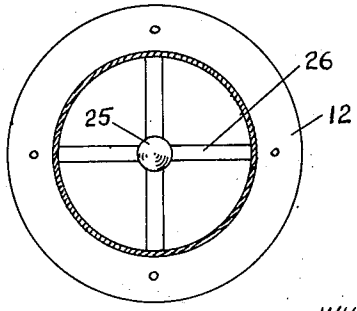


Fig. 4

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United States Patent Office 2,700,510 Patented Jan. 25, 1955

2,700,510

BOTTLE BREAKING DEVICE

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Application June 12, 1953, Serial No. 361,291

1 Claim. (Cl. 241—99)

My invention relates to bottle breaking devices, and more particularly to a bottle breaker without any moving parts.

The object of my invention is to provide a device of the character described that is adjustable for height, and depends on gravity for its performance.

Another object of my invention is to provide a bottle breaker constructed in a manner to prevent the splattering of broken glass.

Still another object of my invention is to provide a bottle breaker that guides the bottle, to insure its proper contact with the breaking anvil.

A further object of my invention is to provide a device that is vertically adjustable, for disengagement with the waste receptacle when broken glass particles are to be removed.

It is manifest that State and Federal laws require that bottles that contain alcoholic beverages must be broken when the contents have been removed. The device illustrated, specified and claimed herein may be easily installed, and permits ready disposition of the bottle without any hazard during the breaking operation.

Other and further objects of my invention will become more apparent as the description proceeds when taken in conjunction with the drawing in which:

Figure 1 is a fragmentary, perspective view of the device installed in a manner to permit its disposable opening to be readily accessible above one floor of a building, and the breaking device to be located one floor below the main floor.

Figure 2 is a cross-sectional view of the device taken longitudinally.

Figure 3 is a lateral, cross-sectional view of the tube portion taken at the line 3—3 in Fig. 2, showing the resilient members, for guiding the bottle, and

Figure 4 is a lateral, cross-sectional view of the hood at the bottom of the tube, taken at the line 4—4 in Fig. 2.

Similar characters of reference indicate corresponding parts throughout the several views, and referring now to the same, the character 10 shows a main tube into which is telescopically inserted an auxiliary tube 11. There is a hood 12 attached to the bottom of the auxiliary tube 11, and a cover 13 is shown at the top of the main tube 10. This cover 13 is shown as having a flange, so that it will center itself and readily fit into the open top of the main tube 10, and a handle 14 is provided on the cover 13 for its manipulation.

The main tube 10 is supported by the floor shown as 15 by means of a floor flange 16 which is attached to the main tube 10 by means of attaching screws or rivets shown as 17, and the flange 16 is attached to the floor 15 by means of the screws shown as 18. Obviously, there is an opening through the floor 15 through which the main tube 10 extends in a vertical fashion.

The auxiliary tube 11 is provided with pins shown as 19 which engage elongated vertical slots shown as 20 in the main tube 10. These slots 20 are long enough to permit raising and lowering the auxiliary tube 11, thereby raising the hood, or bell 12, out of and into engagement with a receptacle shown as 21, which is employed for retaining the broken particles of glass as the bottle is broken, and in this manner by raising and lowering the hood, or bell 12, the receptacle 21 may be removed from below the hood 12, and the particles of glass may then be disposed of.

The auxiliary tube 11 is equipped with resilient guides 22 which are bent inwardly, and are attached at their top 23 to the inside face of the auxiliary tube 11, and extend downward to guide the bottle which is shown as 24 in phantom in Fig. 2 as it drops through the main

tube 10 and auxiliary tube 11 to come in contact with an anvil shown as 25 which is shown supported centrally by means of arms 26 within the inside of the hood, or bell portion 12. Obviously, this anvil 25 may be of any shape or contour, and being centrally disposed and suspended by means of the arms 26 on the hood 12, it will be in direct alignment with the center of the main tube 10 and auxiliary tube 11, and as the bottle 24 comes in contact with the resilient guide members 22 it will be guided in vertical fashion, so that the bottom of the bottle 24 comes in contact with the anvil 25 which, obviously, is of hardened material, and thus cause the bottle to break and the portions of the broken glass to be scattered within the hood, or bell 12, between the supports 26, and finally be disposed within the receptacle 21.

Obviously, the shape of the hood 12 prevents the particles of glass from being brought upward during the breaking operation.

In operation, the main tube 10 which extends through the floor 15 may be placed in any suitable place as, for instance, under the bar in a tavern, or in any other convenient location, and by removing the cover 13 it is only necessary to drop the bottle 24 into the main tube 10, and the bottle will be guided through the tubes 10 and 11, and be guided by means of the resilient guide members 22, so that the center of the bottom of the bottle 24 comes in contact with the anvil 25 which is in direct alignment with the center of the tubes 10 and 11, and thus make a direct contact for breaking the bottle, and the particles of glass can pass between the supports 26 into the receptacle 21.

The device is exceedingly simple, and may be constructed to fit any requirement for installation, and inasmuch as the bottle is broken due to the dropping by gravity onto the anvil, the receptacle may be placed in the basement of the tavern from where it may be easily removed to be emptied.

While I have shown a particular arrangement of the parts constituting my device, I am fully cognizant of the fact that many changes in the form and configuration of the component parts may be made without affecting its operativeness, the spirit of my invention, or the scope of the appended claim.

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

A bottle breaking device of the character described comprising a longitudinal vertical main tube, a flange secured to the outside of said tube for seating engagement upon a floor surface when said tube is extended through an opening formed in the floor surface, an auxiliary vertical tube telescopically engaged in the lower end of said main vertical tube, said main vertical tube being provided with vertically disposed slots adjacent the lower end thereof for slidably receiving pins of said auxiliary tube for support thereof in the lowermost position of said slots, a plurality of elongated resilient guide members secured at the upper ends thereof to the interior of said auxiliary tube adjacent the lower end thereof, a bell-shaped hood secured to the lower end of said auxiliary tube and presenting the open end thereof in a downward direction, transverse arms secured upon the interior of said bell-shaped hood, an anvil secured upon said arms, said anvil having a conical upwardly disposed surface, the apex of which is in direct vertical alignment with said elongated resilient guide members and an open ended collection receptacle receiving said bell-shaped hood therewithin.

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