Aug. 2, 1938. S. ROSEN 2,125,651

BOTTLE BREAKER

Filed Jan. 29, 1936

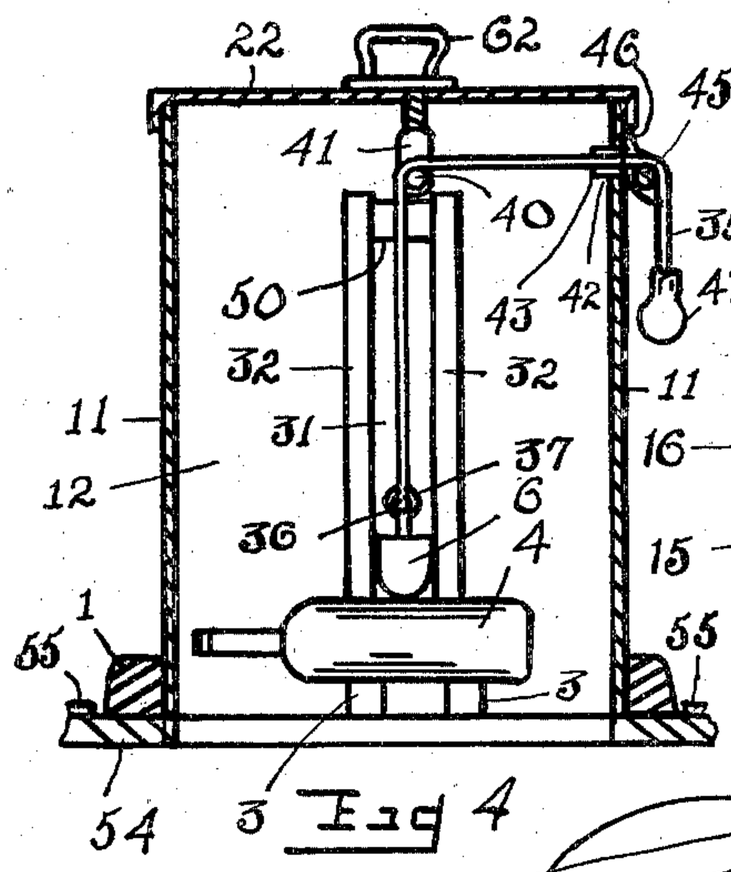

Fig 4

Fig 6

Fig 1

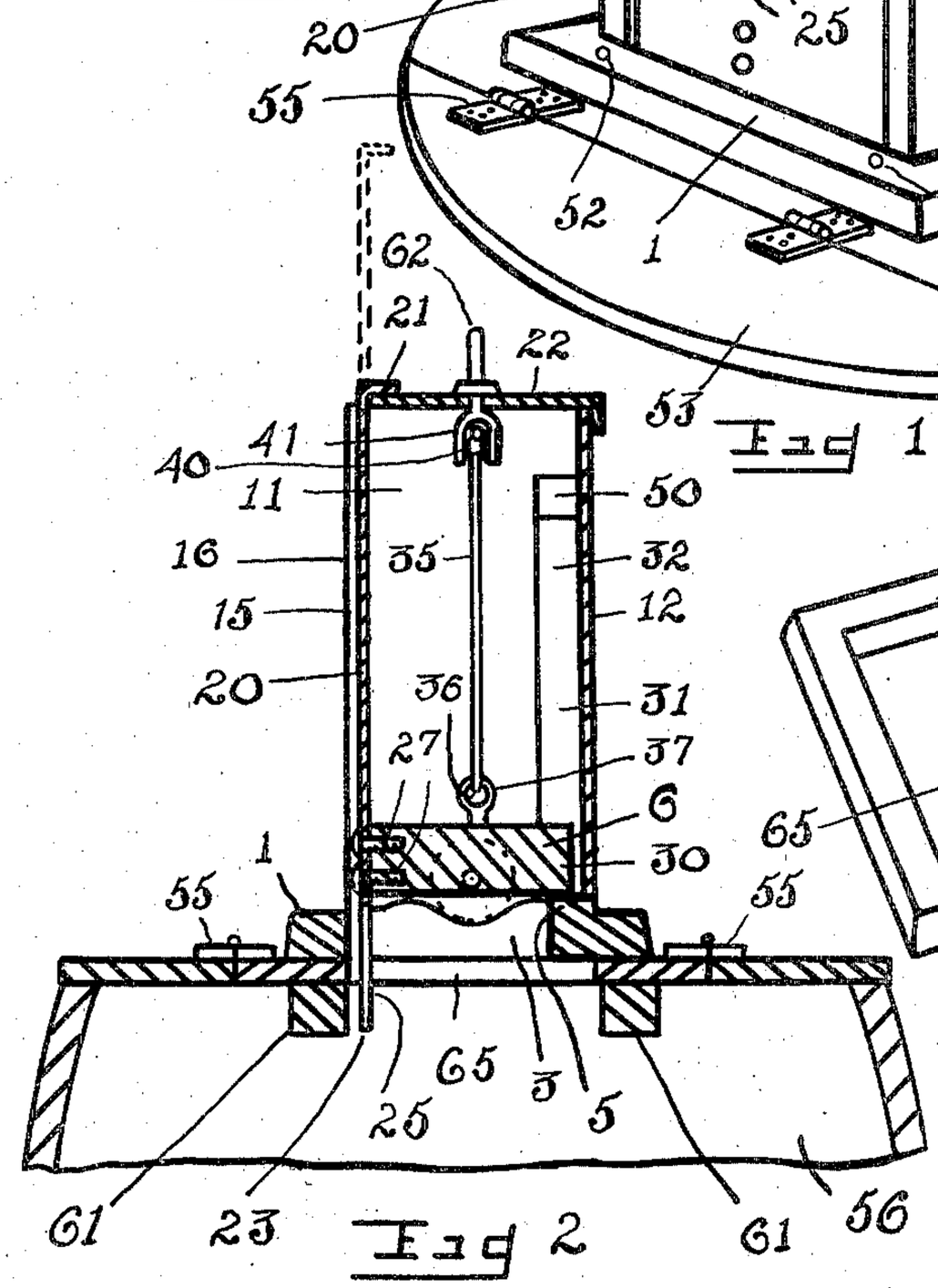

Fig 2

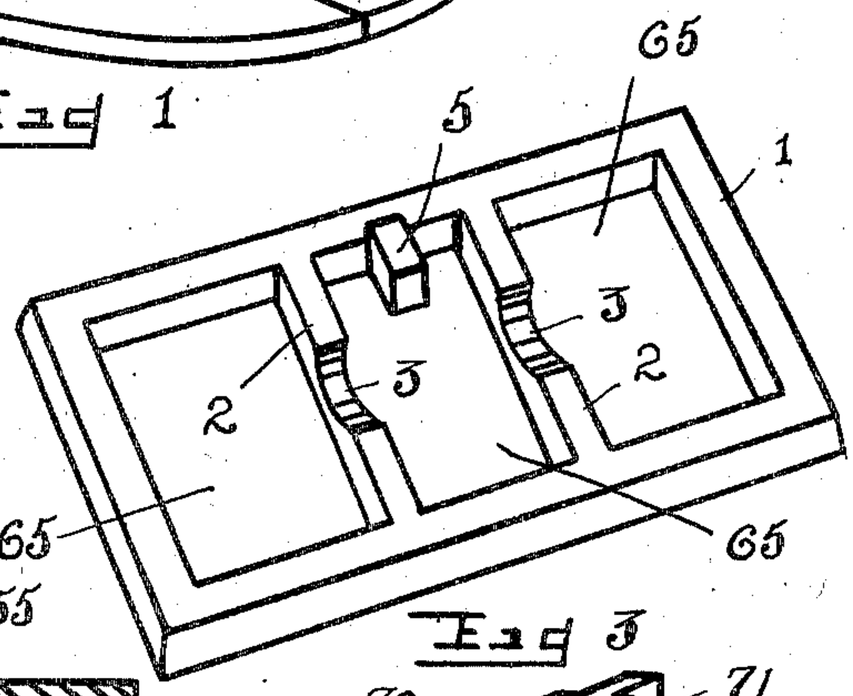

Fig 3

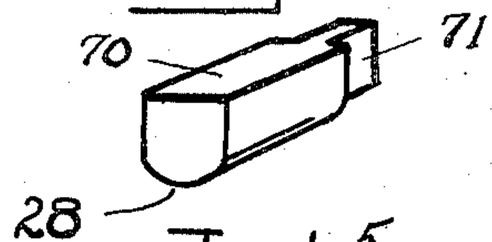

Fig 5

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BOTTLE BREAKER

Samuel Rosen, Utica, N. Y.

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4 Claims. (Cl. 83—93)

My invention relates to a bottle breaker and I declare the following to be a full, clear, concise and exact description thereof sufficient to enable anyone skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing in which like reference characters refer to like parts throughout the specification.

The object of the invention is to provide a device for breaking bottles especially liquor bottles that are to be destroyed to prevent re-filling them with some inferior liquor.

The device can be applied to the top of any barrel, whereby the broken glass will fall therein.

Furthermore, the device is designed to enclose the bottle before the hammer strikes thereon, whereby to prevent flying glass from injuring those standing nearby.

The object of the invention will be more fully understood by the drawing in which,

Fig. 1 is a perspective view of the device.

Fig. 2 is a central vertical section taken on the line 2—2 of Fig. 1 and showing device applied to the top of an empty barrel.

Fig. 3 is a detail view showing a perspective of a base casting employed.

Fig. 4 is a sectional view taken on a line 4—4 of Fig. 1.

Fig. 5 is a detail enlarged view showing a perspective of a modified form of a hammer employed.

Fig. 6 is a detail view showing a fragment of a channel bar which may be employed as a guideway for the hammer.

Referring more particularly to the drawing the device embodies a rectangular base casting 1 made of any suitable metal and having cross beams 2, 2 formed integral therewith. Beams 2, 2 are concaved at 3, 3 to conform to the cylindrical surface of a bottle 4, whereby the said bottle 4 when disposed thereon will remain stationary. A stop member 5 for limiting the downward stroke of hammer 6 hereinafter mentioned is formed also integral with casting 1.

An upstanding casing forming a cabinet is supported by base casting 1. It is made of a piece of sheet metal 10 which is bent to form sides 11, 11 and back 12 of the casing. The front portion being left open at 15 to form a feed opening. The free ends of sheeting 10 are bent at right angles as at 16, 16 to form lateral surfaces in the front portion of the casing. Furthermore, the bent portions 16, 16 form a guideway for vertically sliding cover 20. Back wall 12 is cut away to clear stop member 5.

Vertically sliding cover 20 has its upper end bent at right angles as at 21 to form a ledge that rests against the upper surface of top plate 22 of the cabinet casing when in closed position. The lower edge 23 of vertically sliding cover 20 extends considerably below the lower edge of casting 1 when in closed position as shown more particularly in Fig. 2. It has also open slots 25, 25 to straddle cross beams 2, 2 when in closed position.

The top casing 10 is formed by metal sheeting 22 above mentioned which has its latter ends bent at right angles and riveted at 26, 26 to the adjacent sides 11, 11 of the casing. There is no bottom to the cabinet, whereby to allow the broken bottle 4 to fall below into a barrel hereinafter mentioned.

Cover 20 has permanently attached thereto and extending inwardly therefrom bottle breaker 6 heretofore mentioned. It is attached to cover 20 by screw bolts 27, 27 or by welding or any other suitable manner. Breaker 6 is made preferably of metal and rectangular in shape with the lower edge rounded at 28. Moreover, breaker 6 is attached to cover 20 sufficiently above the lower edge 23 of the said cover 20, whereby said lower edge 23 will be below the upper surface of casting 1 before breaker 6 hits bottle 4. This is intended to completely inclose bottle 4 before it is struck by breaker 6, whereby to confine the broken glass to the chamber within casing 10, and thereby prevent pieces of glass from flying and striking any person standing nearby.

The rear end 30 of breaker 6 slides within an open vertical guideway 31 formed by bars 32, 32 attached to the rear surface 12 of casing 10 and disposed sufficiently apart to allow for the free passage of end 30 of breaker 6.

Means for elevating cover 20 and simultaneously therewith breaker 6 embodies a cord or cable 35 which is attached at its end 36 to eye bolt 37 screw mounted to breaker 6 or fastened in any other suitable manner. Cable 35 passes directly upward over pulley 40 carried in hanger 41 attached in a permanent manner to the underside of top plate 22 of the casing 10. From pulley 40 cable 35 passes in a horizontal plane and parallel with the undersurface of top plate 22 through an aperture 42 formed in one of the sides 11 of casing 10. A sleeve 43 is mounted to side 11 to facilitate the passage of cable 35 through the aperture 42. Cable 35 thence passes over pulley 45 attached by a bolt 46 to side 11 of the casing 10. A handle 47 is mounted to the free end of cable 35. By pulling on handle 47 cover 20 and bottle breaker 6 will

be raised to the dotted line position shown in Fig. 1. A stop member 50 is attached by welding or otherwise to back plate 12 of casing 10 and is disposed between guide bars 32, 32 to limit the upward movement of bottle breaker 6 attached to cover 20.

Casting 1 is permanently attached to a cover portion 51 by bolts 52 or in any other suitable manner. Cover 51 is made in three parts, the two outer parts 53, 53 are attached to the central part 54 by hinges 55, 55 in each instance. This allows for swinging upward, parts 53, 53 whereby to view the interior of the barrel 56. Cover 51 has attached to its lower surface two parallelly disposed cleats 61, 61 which aid in holding cover 51 in correct position on the top of barrel 56.

A handle 62 is permanently attached by rivets or otherwise to the top casing 22, whereby to aid in making the device portable.

The operation of the device is effected by disposing the same with cover 51 upon the top of a barrel 56. When an occasion arises for breaking a bottle 4 the operator grasps handle 47 of cable 35 and pulls downward, whereby to elevate cover 20 and bottle breaker 6 connected thereto sufficiently far to allow for dropping bottle 4 upon cross beams 2, 2 of base casting 1 where it will come to rest in concave surfaces 3, 3. He then releases handle 47 whereupon cover 20 from its own weight increased by the added weight of bottle breaker 6 will fall into closed position. Before the lower surface of bottle breaker 6 has struck bottle 4 the lower edge 23 of cover 20 will have reached a position below the upper surface of casting 1, whereby to completely close the bottle in the chamber within casing 10 to prevent glass flying and striking persons standing nearby.

The action may be repeated in a similar manner as often as it is necessary to break a bottle. The user simply gives a pull on handle 47 each time to raise cover 20 and bottle breaker 6 and then after dropping bottle 4 in position upon cross beams 2, 2 releases handle 47 whereupon the cover 20 and breaker 6 fall, the one to close the front of casing 10 and the other to break bottle 4.

The broken pieces of bottle 4 fall down through the open spaces 65, 65, 65 which forms a bottom opening for the discharge of the broken bottle into the empty barrel 56.

Fig. 5 shows a modification of a hammer here denoted as 70. Hammer 70 has a reduced portion at 71 which fits and slides in the guideway formed by bars 32, 32. This construction is intended to reduce lateral vibration to a minimum degree.

In place of guide bars 32, 32 an ordinary piece of channel iron 71 can be employed. In this instance the channel iron 71 will be riveted or otherwise secured to the rear wall 12 of casing 10.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is as follows:

1. In a bottle breaker, a casing with feed opening at one side for the introduction of a bottle, a bottom opening for the discharge of the broken bottle, members for supporting said bottle within said casing, a vertically sliding cover for closure of said first named opening, a gravity actuated breaker fastened to said cover and spaced above the lower edge thereof, whereby said cover will close said opening before said breaker strikes said bottle and guideways formed in said casing to direct the movement of said breaker.

2. In a bottle breaker, a casing with feed opening at one side for the introduction of a bottle, a bottom opening for the discharge of the broken bottle, bars for holding said bottle over said opening, a vertically sliding cover for closure of said first named opening and a gravity actuated breaker element fixed to said cover and spaced above the lower edge thereof, whereby said cover will close said opening before said breaker strikes and breaks said bottle.

3. In a bottle breaker, a casing with feed opening at one side for the introduction of a bottle, a bottom opening for the discharge of the broken bottle, members for supporting said bottle within said casing, a vertically sliding cover for closure of said first named opening and gravity actuated breaker element fixed to said cover, and spaced above the lower edge of said cover, whereby said cover will close with said opening before said breaker strikes and breaks said bottle.

4. In a bottle breaker, a casing with feed opening at one side for the introduction of a bottle, a bottom opening for the discharge of the broken bottle, members for supporting said bottle within said casing, a vertically sliding cover for closure of said first named opening, a gravity actuated breaker element spaced above the lower edge of said cover and a cord for elevating said breaker and said cover, whereby upon the descent of the breaker and the cover the feed opening is closed and the bottle is then broken.

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