(No Model.)

W. H. PAYNE.

DEVICE FOR PREVENTING BOTTLE REFILLING.

No. 566,722. Patented Aug. 25, 1896.

Fig. 1

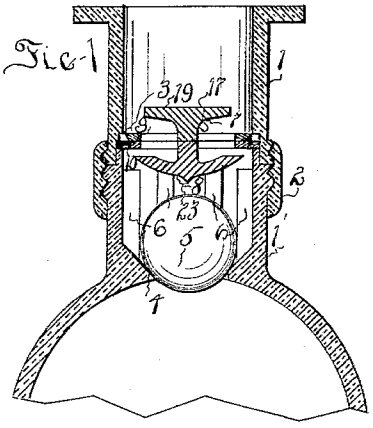


Fig. 3

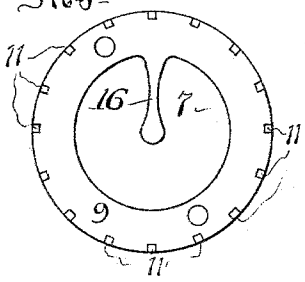


Fig. 4

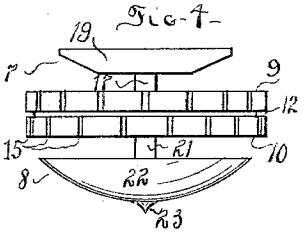


Fig. 2

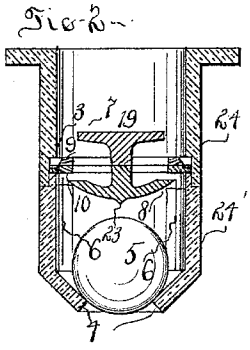


Fig. 5

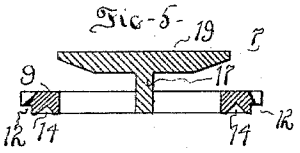


Fig. 6

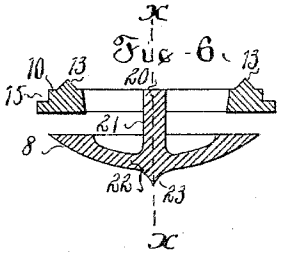
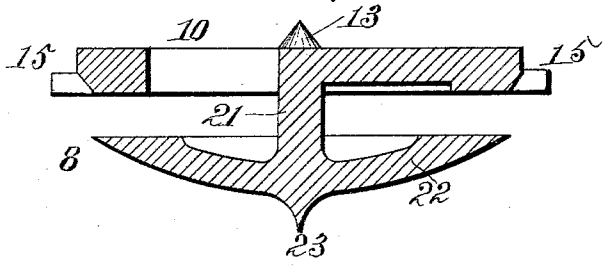


Fig. 7



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WILLIAM H. PAYNE, OF CAMDEN, NEW JERSEY, ASSIGNOR TO ZACHARIAH K. LOUCKS, OF PHILADELPHIA, PENNSYLVANIA.

DEVICE FOR PREVENTING BOTTLE-REFILLING.

SPECIFICATION forming part of Letters Patent No. 566,722, dated August 25, 1896.

Application filed May 26, 1895. Serial No. 550,689. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PAYNE, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Devices for Preventing the Clandestine Refilling of Bottles; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable others skilled in the art to make and use the said invention.

This invention relates to devices for preventing the clandestine refilling of bottles, and is an improvement upon the invention set forth in United States Letters Patent No. 537,712, granted to me on the 16th of April, 1895.

In the invention set forth in the said patent a button 8 was formed on the under side of a grating, so as to intercept any object introduced through the grating to reach the valve, and the ingress of air as well as the outflow of liquid was through the same openings in the grating.

In this invention the difficulty of reaching the valve is increased by the addition of another button and also by a change in form of the grating, and the air-ingress is provided for by angular passages at the edges of the grate.

The construction and operation of this improvement are hereinafter fully described, and shown in the accompanying drawings, in which—

Figure 1 shows in vertical section a bottle-neck containing this improvement. Fig. 2 shows a tube in section, containing this device, adapted to be inserted in a bottle-neck. Fig. 3 is an enlarged inverted view of the upper part of the improved grating and guard. Fig. 4 is an enlarged elevation of the same. Fig. 5 is an enlarged vertical section of the upper part of a guard. Fig. 6 is an enlarged section of a lower part of the guard, and Fig. 7 is a section of the lower part of the guard, made in the plane indicated by the dotted line $x\ x$ in Fig. 6.

1 represents the upper part of a bottle-neck formed in two parts. 1′ is the lower portion thereof. These may be united by any known suitable means. As shown in the drawings, they are provided with screw-threads and held together by a nut 2, cemented or otherwise secured immovably on the parts. At the line of junction an internal circumferential groove 3 is formed. In the lower portion of the section or part 1′ a valve-seat 4 is formed, in which fits a spherical valve 5. Guides 6 6 are formed in the interior of the part 1′ above the valve-seat 4, which guide the valve 5 in central axial line with the seat 4 in opening and closing.

The guard is formed of the two parts 7 and 8. Each part has a rim, (marked, respectively, 9 and 10,) which when placed together fit in the groove 3. The rim 9 has notches 11 in its edge, and a bevel or rabbet 12 in the edge on the side toward the rim 10. Projections 13 are formed on the rim 10, which fit the corresponding cavities 14, located between the notches 11 in the rim 9. Notches 15 in the rim 10 communicate with the rabbet 12, so that there is a series of bent or angular channels through the notches 11, rabbet 12, and notches 15, through which air can pass from the upper to the lower side of the guard, but from their angular form no solid object can be passed to reach the valve 5.

A brace or bar 16 extends entirely or partially across the ring 9, from which projects upwardly a stem 17, having a button or head 19 of greater diameter than the opening of the ring 9. A similar brace or bar 20 extends across the ring 10, from which projects downwardly a stem 21, bearing a cup 22 of a greater diameter than the opening in the ring 10. On the bottom of the cup 22 is a centrally-located pointed projection 23, which serves to limit the motion of the valve 5 from its seat 4 without presenting any sufficient surface to which the valve 5 could adhere in the event of an adhesive fluid being introduced for such object. From the form and structure of the parts, as described, it is impossible to reach the valve 5 by any object passed through the rings 9 and 10 without breaking the guard, which leaves evidence of tampering with the bottle.

The form shown in Fig. 2 is in all respects like that above described as applied to the bottle-neck 1 1′, with the exception only that the entire device, including the tube or sleeve

24 and 24′, is introduced and cemented in a bottle-neck of usual construction.

Having described my invention, what I claim is—

1. A guard for preventing access to the valve of a non-refilling bottle, formed of two parts, each having a central aperture, a bar and stem with a button or cup of greater diameter than the central aperture, as and for the purpose set forth.

2. A guard, for preventing access to the valve of a non-refilling bottle, formed in two parts, each having a central aperture and a button or cup of greater diameter than the central aperture, and notches in the rim communicating with a circumferential rabbet or groove, but not registering with the notches in the other ring, for the purpose of admitting air and excluding solid objects from access to the valve, substantially as set forth.

WILLIAM H. PAYNE.

Witnesses:
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