

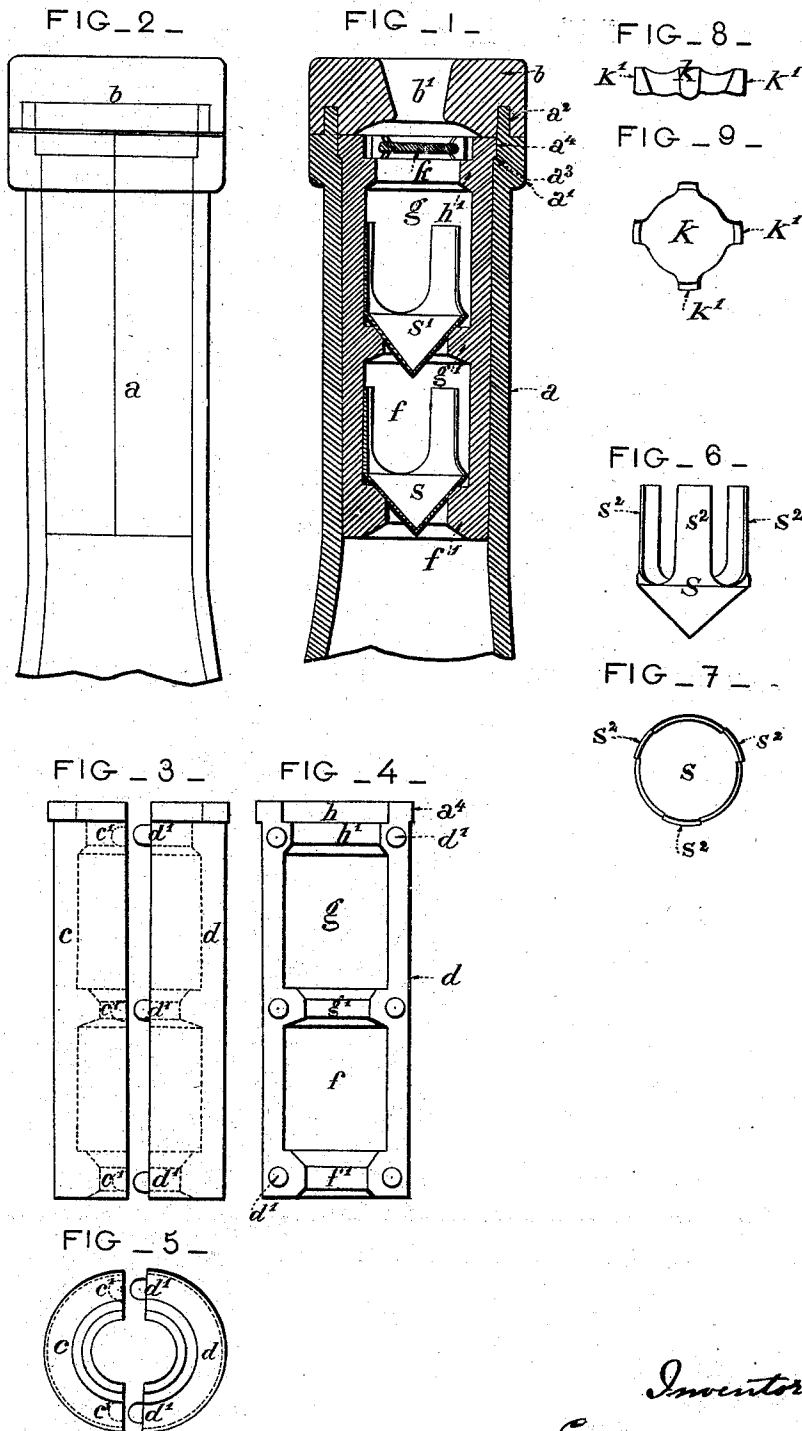
(No Model.)

E. GUERBOIS.

APPARATUS FOR PREVENTING THE REFILLING OF BOTTLES.

No. 505,461.

Patented Sept. 26, 1893.



Witnesses:

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Charles Chierry

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UNITED STATES PATENT OFFICE.

ERNEST GUERBOIS, OF PLAISANCE, FRANCE.

APPARATUS FOR PREVENTING THE REFILLING OF BOTTLES.

SPECIFICATION forming part of Letters Patent No. 505,461, dated September 26, 1893.

Application filed April 19, 1893. Serial No. 470,973. (No model.) Patented in France November 11, 1892, No. 225,594.

To all whom it may concern:

Be it known that I, ERNEST GUERBOIS, a citizen of the Republic of France, and a resident of Plaisance, (Department of Loiret,) France, have invented a certain new and useful Device or Apparatus for Preventing the Refilling of Bottles, (for which I have obtained a patent in France, November 11, 1892, No. 225,594,) of which the following is a specification.

The object of this invention is to provide a device or apparatus for preventing the refilling of all kinds of bottles after they have been once wholly or partially emptied, so that a bottle of superior liquor, for example, when furnished with the said device or apparatus, cannot be filled up with liquor of an inferior quality after it has been partially emptied, or be used again when it has been quite emptied; such a bottle therefore cannot be used a second time.

In the drawings hereto annexed, Figure 1 is a vertical section through the axis of the neck of a liquor bottle with my device or apparatus applied thereto. Fig. 2 is an external view of the same. Fig. 3 shows, separated from one another, the two parts composing a valve box to be inserted into the neck of the bottle; Fig. 4 a view of the interior of one of these parts, and Fig. 5 a plan corresponding to Fig. 3. Figs. 6 and 7 are respectively an elevation and a plan of one of the valves contained in the aforesaid valve box, and Figs. 8 and 9 are respectively an elevation and a plan of a safety grating to prevent access to the aforesaid valves.

The neck *a* of the bottle is of nearly the usual construction; it is furnished with the usual shoulder *a'* and with the rim *a''* terminating the neck. Internally the neck is perfectly cylindrical but slightly enlarged at the top above the shoulder *a'*. In the neck of the bottle thus formed is fitted the valve box made of glass or other suitable material in two parts *c* *d* similar to each other and fitting together so as to form a perfect joint in the plane of the vertical axis of the neck of the bottle. One of these parts, *c* for example, is molded with recesses *c'* *c''* and the other part *d* with projections or dowels *d'* *d''* which fit into the corresponding recesses *c'* *c''*. The parts *c* and

d, when placed together, form a cylinder which fits exactly into the neck of the bottle. A flange or shoulder *a'* fits into the larger part of the neck of the bottle and rests on the above mentioned shoulder *a''*.

The box *c* *d* has three compartments *f* *g* *h* separated from one another by the partitions *g'* *h'*, the under side of the lower compartment being formed by a partition *f'*. Partitions *f'* *g'*, form seats for two valves *s*, *s'* and *h'* forms the seat for a kind of grating *k*.

The valves *s* *s'* are hollow, preferably of glass and very light. Each valve consists of a cone which fits accurately to its seat and of three, more or less, guide wings *s''* which fit against the sides of the compartments *f* *g* and guide the valve when it leaves or returns to its seat so that the valve cannot get out of place. The valves *s* *s'* are hollow so as to become charged immediately with liquid, wherever they are pressed against their seats whenever an attempt is made to refill the bottle. The lift of the valves is limited by their guides *s''* coming against the shoulders of the seat *g'* *h'*.

On the seat *h'* rests freely the grating *k* composed of a disk the sides of which are cut away between the supporting points *k'* so as to form openings through which the liquid can flow easily out of the bottle when it is tilted. This grating *k*, which is held in place by the cap *b*, prevents the introduction of any tool for the purpose of tampering with the valves *s* *s'*. The cap *b* covers the mouth of the bottle and is cemented or otherwise permanently secured thereto. The valve box *c* *d* is also retained in the neck of the bottle by cementing or otherwise, so that when the device or apparatus is once put in place, it cannot be removed without breaking or damaging the bottle, or at all events without leaving evident traces of the operation. The cap *b* is provided with a hole *b'* through which the contents of the bottle can be poured out.

The action of the device or apparatus is as follows: When the contents of a bottle, provided with the above described device or apparatus after it has been filled, are poured out by tilting the bottle, the liquid presses the valves *s* *s'* outward away from their seats and runs out through the spaces left free at

the seats $f' g'$, then through the spaces round the grating k and finally through the hole b' in the cap b . Supposing now that the bottle wholly or partially empty is placed in a vessel containing some liquid with which it is desired to refill the bottle, the said liquid enters round the grating k and reaches the first valve s which it fills and thereby pushes against its seat g' ; if perchance a little liquid also enters the compartment f , it fills the second valve s' and pushes it in like manner against its seat f' , so that after the liquid has filled the valve compartments the valves $s s'$ are closed against their seats $f' g'$ and prevent the refilling of the bottle. If, when the bottle is empty, it is turned with its neck downward for the purpose of refilling it, the valves $s s'$ leave their seats but return to them again directly if the bottle is plunged, in that position, into a vessel of liquid, because the valves form floats and are too light to resist the pressure of the liquid tending to close them. The grating k effectually prevents the introduction of any tool whatever for raising the valves from their seats or for holding them raised therefrom. But if even it were possible to hold up the first valve s' it would appear to be impossible to get at the second one s in order to raise it, or to keep it raised from its seat.

I claim as new and desire to secure by Letters Patent—

1. In a device for preventing a bottle from being wholly or partly re-filled, the combination of two valves $s s'$ a valve chest constructed in two sections, as $c d$, united by a vertical joint, each of such sections being provided with projections extending inwardly

and forming seats and stops for such valves, substantially as set forth.

2. In a device for preventing a bottle from being wholly or partly re-filled, the combination of two valves s, s' , a valve chest constructed in two sections as c, d , united by a vertical joint each of such sections being provided with projections extending inwardly and forming seats and stops for such valves, and a grating, as K , secured above the valves for preventing access to the same, substantially as set forth.

3. In a device for preventing a bottle from being wholly or partly refilled, the combination of two valves $s s'$, a valve chest constructed in two sections, as c, d , united by a vertical joint, each of such sections being provided with projections extending inwardly and forming seats and stops for such valves, and a perforated cap b placed above such valve chest near the mouth of the bottle, substantially as set forth.

4. In a device for preventing a bottle from being wholly or partly re-filled, the combination of two valves $s s'$, a valve chest constructed in two sections as c, d united by a vertical joint, and three partitions f', g' and h' extending inwardly from such sections, partitions f' and g' forming seats for aforesaid valves and g' and h' forming stops for the same, substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ERNEST GUERBOIS.

Witnesses:

GEORGES CLAURENT,
CHARLES THIERRY.