

W. G. BALLS.
BOTTLE.

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1,050,330.

Patented Jan. 14, 1913.

Fig. 1.

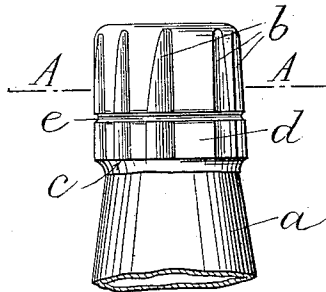
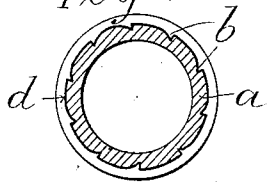


Fig. 2.



Witnesses.

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WILLIAM GEORGE BALLS, OF LONDON, ENGLAND.

BOTTLE.

1,050,330.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM GEORGE BALLS, a subject of the King of Great Britain and Ireland, residing at London, England, have invented Improvements in Bottles, of which the following is a specification.

This invention relates to bottles designed when filled and stoppered, to be fitted with capsules intended to identify the contents of the bottles as being of a special brand, quality or character and it has for object to so form the neck of such a bottle that after the bottle has been charged with a material of a special brand, quality or character and the capsule applied, the latter cannot be removed intact and replaced on a bottle charged with material of a different brand, quality or character with a fraudulent intent. For this purpose, according to the invention the neck or mouth of a bottle is formed externally with recesses or indentations in such a way that a capsule, after being properly fitted thereto, will, in the act of being afterward removed, be so torn or damaged as to render its re-use impossible.

Recesses or indentations for the purpose set forth can be constructed and arranged in various ways. Conveniently they may extend longitudinally, or both longitudinally and transversely, of the bottle neck. The longitudinal recesses or indentations may, in some cases, be of V-shape in section and so arranged as to constitute in effect a ring of ratchet shaped teeth around the bottle neck so that each recess or indentation has at least one fine or sharp edge. Upon fitting a metal capsule over such a bottle neck and pressing it well into the recesses or indentations, the metal of which it is composed will be strained to such an extent that upon afterward removing it, it will readily become so torn or damaged as to render its further use impossible.

In the accompanying drawings, Figure 1 is an elevation, and Fig. 2 a horizontal section corresponding to the line A, A of Fig. 1, showing one construction of bottle according to this invention.

In this example, the bottle neck *a* is formed with a number of longitudinal recesses *b* that extend from the top or mouth of the bottle to the usual shoulder *c* below which the lower end of a capsule *d* is ordinarily bent inwardly, each of such recesses being of V-shape in section so as to form

around the bottle neck a series of ratchet-like teeth *e* some of which extend in an opposite direction, circumferentially, to the others so as to form both right and left handed ratchet-like teeth. A transverse or circumferential recess *e*, of angular or concave section, is also formed all around the bottle neck between the shoulder *c* and the top of the bottle and cutting through all the ratchet-like teeth *b*. When a bottle so formed is provided with a tight fitting sheet metal capsule *d* (Fig. 2) which is then forced well down into the recesses *b*, *e* and over the sharp edges of the recesses, it will be readily understood that the transverse or circumferential recess *e* will prevent any possibility of the capsule being withdrawn, without damage, by a pull lengthwise of the bottle, while the longitudinal recesses *b* will prevent any possibility of its being withdrawn, without damage, by twisting it off the bottle neck *a* in either direction.

What I claim is:—

1. A bottle the neck of which is recessed externally to form a plurality of ratchet-like teeth some of which extend in an opposite direction circumferentially to the others.

2. A bottle the neck of which is recessed externally to form a plurality of ratchet-like teeth some of which extend in an opposite direction circumferentially to the others and a circumferential recess cutting through the ratchet-like teeth.

3. A bottle the neck of which is formed with a shoulder below which the lower end of a capsule can be bent inwardly, a number of longitudinally extending recesses that extend from the top or mouth of the bottle to the said shoulder, each of said longitudinal recesses being of ratchet tooth shape in section and some of which extend in an opposite direction circumferentially to the others, and a circumferential recess cutting through said longitudinal recesses.

4. A bottle the neck of which is recessed externally to form a plurality of ratchet-like teeth some of which extend in an opposite direction circumferentially to the others and a sheet metal capsule forced well down into said teeth.

5. A bottle the neck of which is recessed externally to form a plurality of ratchet-like teeth some of which extend in an opposite direction circumferentially to the others, a circumferential recess cutting through the

ratchet like teeth and a sheet metal capsule forced well down into said teeth and recess.

6. A bottle the neck of which is formed with a shoulder below which the lower end
5 of a capsule can be bent inwardly, a number of longitudinally extending recesses that extend from the top or mouth of the bottle to the said shoulder, each of said longitudinal recesses being of ratchet-tooth shape in
10 section and some of which extend in an opposite direction circumferentially to the

others, a circumferential recess cutting through said longitudinal recesses and a sheet metal capsule forced well down into said longitudinal and circumferential recesses.

Signed at London England this 13th day of June 1910.

WILLIAM GEORGE BALLS.

Witnesses:

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A. R. WOOLLETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."