J. V. GRIFFIN.

BOTTLE SEAL.

APPLICATION FILED MAY 6, 1908.

962,022. Patented June 21, 1910.

Fig. 1.

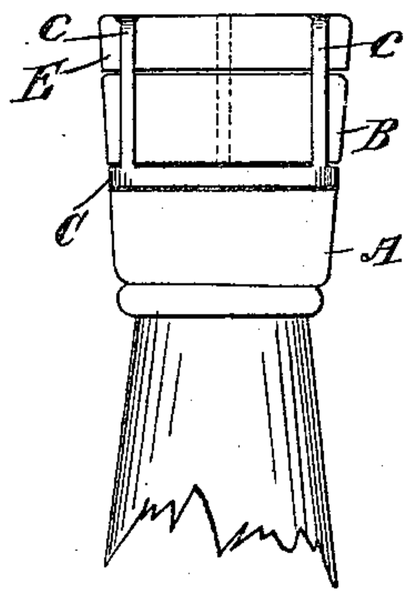


Fig. 2.

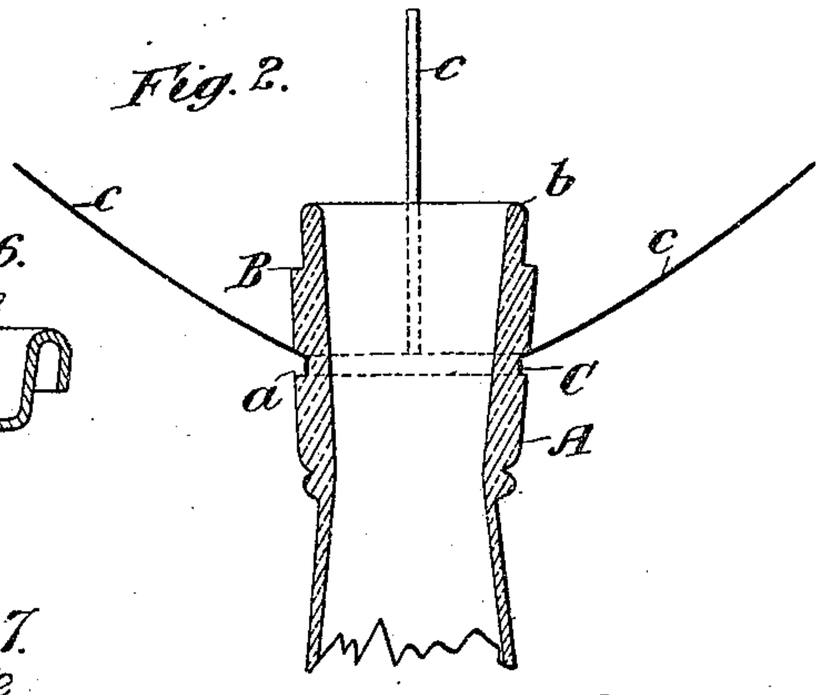


Fig. 6.

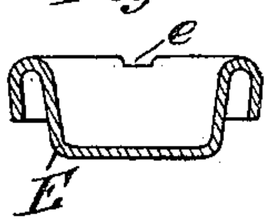


Fig. 7.

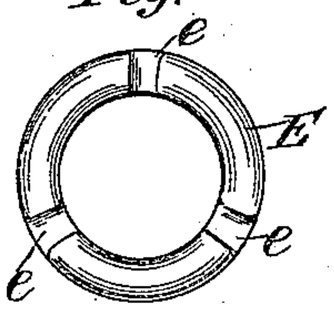


Fig. 3.

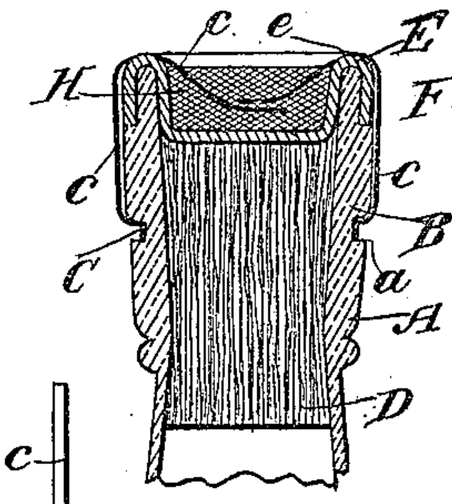


Fig. 5.

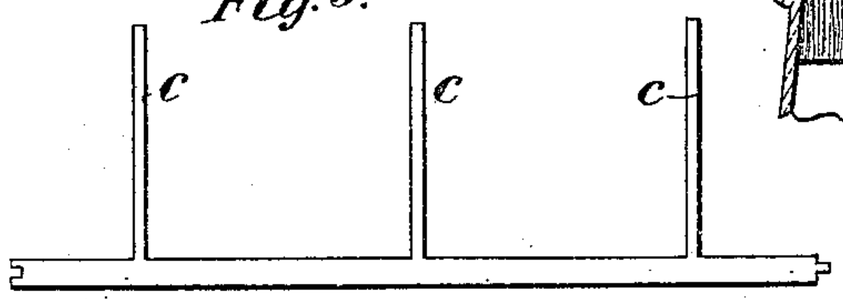
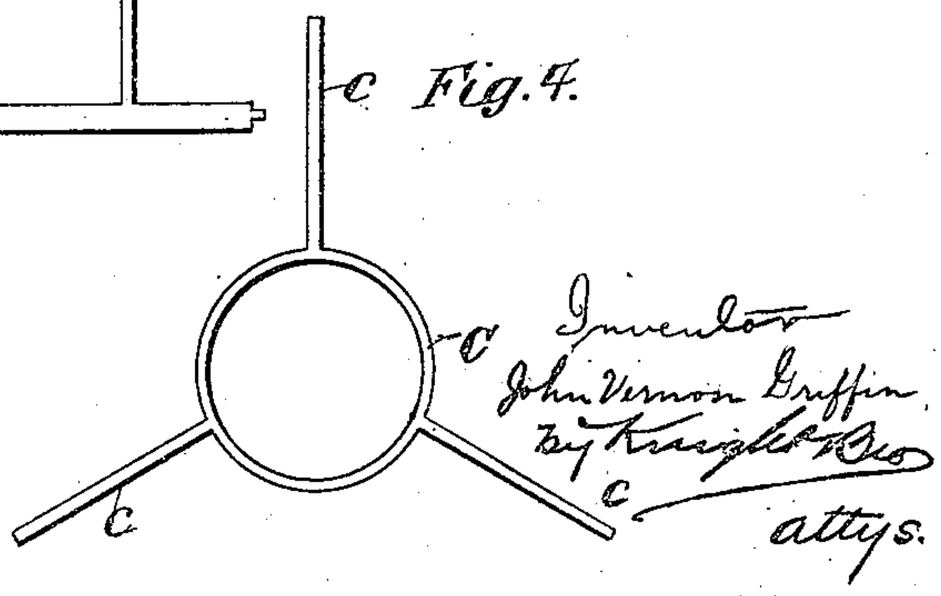


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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BOTTLE-SEAL.

962,022. Specification of Letters Patent. Patented June 21, 1910.

Application filed May 6, 1908. Serial No. 431,280.

To all whom it may concern:

Be it known that I, JOHN VERNON GRIFFIN, a subject of the King of the United Kingdom of Great Britain and Ireland, and resident of Toungoo, Burma, India, executive engineer Indian Public Works Department, have invented new and useful Improvements in Bottle-Seals, of which the following is a specification.

This invention relates to improvements in bottle seals and has for its object to provide a seal which cannot be renewed without detection, so as to prevent persons tampering with the contents of a sealed bottle. To accomplish this object the seal is connected with the bottle in such a manner that the connection must be broken in order to get at the contents of the bottle and, the arrangement is such that, when broken such connection cannot be renewed without being readily detected. Said connection consists preferably of wires secured to the outside of the neck of the bottle, bent upward and then over the lip of the mouth thereof and being sealed in such a manner that they cannot be removed without breaking the strips.

Figure 1 shows the neck end of a bottle embodying my improvements. Fig. 2 a sectional elevation thereof with the connection or sealing wires splayed out. Fig. 3 a sectional elevation of Fig. 1. Figs. 4 to 7 are details hereinafter referred to.

In the manufacture of glass bottles it is usual to increase the thickness of the glass at the top of the neck of the bottle, after it has been taken from the mold, by adding a ring of glass "metal," the top being then trimmed to shape both inside and out by "tongs."

In my improvements I form the upper portion of the neck with two such rings A and B of glass "metal" and with a narrow space *a* between them; the lower ring A being laid on first and trimmed to shape. The metal or other band C is then slipped on over the neck of the bottle and placed close up against the shoulder of the ring A; the strips *c* being bent outward (Fig. 2). The second or top glass ring B is then added and trimmed to shape with the "tongs," leaving a short length *b* of the neck projecting above it. In the last trimming, the glass is to be pressed outward from the inside of the neck so as to fit close to the iron band C which may advantageously be slightly embedded. This enlarging of the inner diameter of the neck of the bottle is to be allowed for in the molding of the bottle. In this form the bottle is issued from the factory.

The iron band C and the strips *c* are made in one piece which can be stamped out of a sheet of metal (Fig. 5) and a brazed joint made in the band C; or it may be cut from solid drawn piping; or it may be made out of wire; but the said strips must be thin and flexible.

In corking the bottle Fig. 3, the cork D is driven a sufficient distance below the mouth of the bottle to admit of the wad E, which is intended to protect the said cork, and also to allow of the affixing of the seal; the wad E being made of any suitable non-conducting material such as asbestos and it is stamped or molded to the shape shown in Figs. 3, 6 and 7 being sections and a plan view, respectively.

The wad E forms a mold in which the seal is cast and it is turned over the lip of the bottle to fit close around the portion *b* Fig. 3 so as to keep the said wad conveniently in position and to give the whole a finished appearance (Fig. 1). The strips *c*, preferably three in number, are then bent up close to the sides of the bottle neck and down over the wad E in the manner shown in Fig. 3; the lip of the wad being preferably slightly indented at *e* to allow the strips *c* to be flush with the lip. The strips *c* are then embedded by casting a seal H of any suitable alloy or composition, in the mold formed by the wad E. The seal H must necessarily be stronger than the strips *c* which will then have to be broken in order to get at the contents of the bottle.

The seal may bear the impress of the bottlers' trade mark.

Any other suitable material may be used in place of the material specified in this particular case, the general principle of this invention being that the seal H, being stronger than the strips *c*, they must be broken in order to get at the contents of the bottle, and the strips *c* being in one piece with the band C, which is fitted on to the bottle during the process of its manufacture, the strips *c* cannot be renewed after they are once broken without the renewal being readily detected.

If other materials are used than those

specified, the process will be substantially the same but the method of manufacture and sealing may be somewhat different.

Claim—

The combination with a bottle having an enlarged ring on its neck portion provided with an intermediate annular groove, and an annular recess at the top thereof; of a wad having a cup-shaped portion adapted to fit down into the mouth of the neck and having an integral portion adapted to overlie the lip of the bottle neck and occupy said annular recess, said portion lying within said recess meeting flush with the adjacent surface of the bottle neck; said wad being provided with a plurality of equally spaced depressions on that portion overlying the lip of the neck; a metallic fastener comprising a ring fitting within said annular groove of the bottle neck and having a plurality of laterally disposed strips extending up over the depressions in the wad and down into the cup-shaped cavity; and a sealing medium within said cavity uniting and concealing the ends of said strips.

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