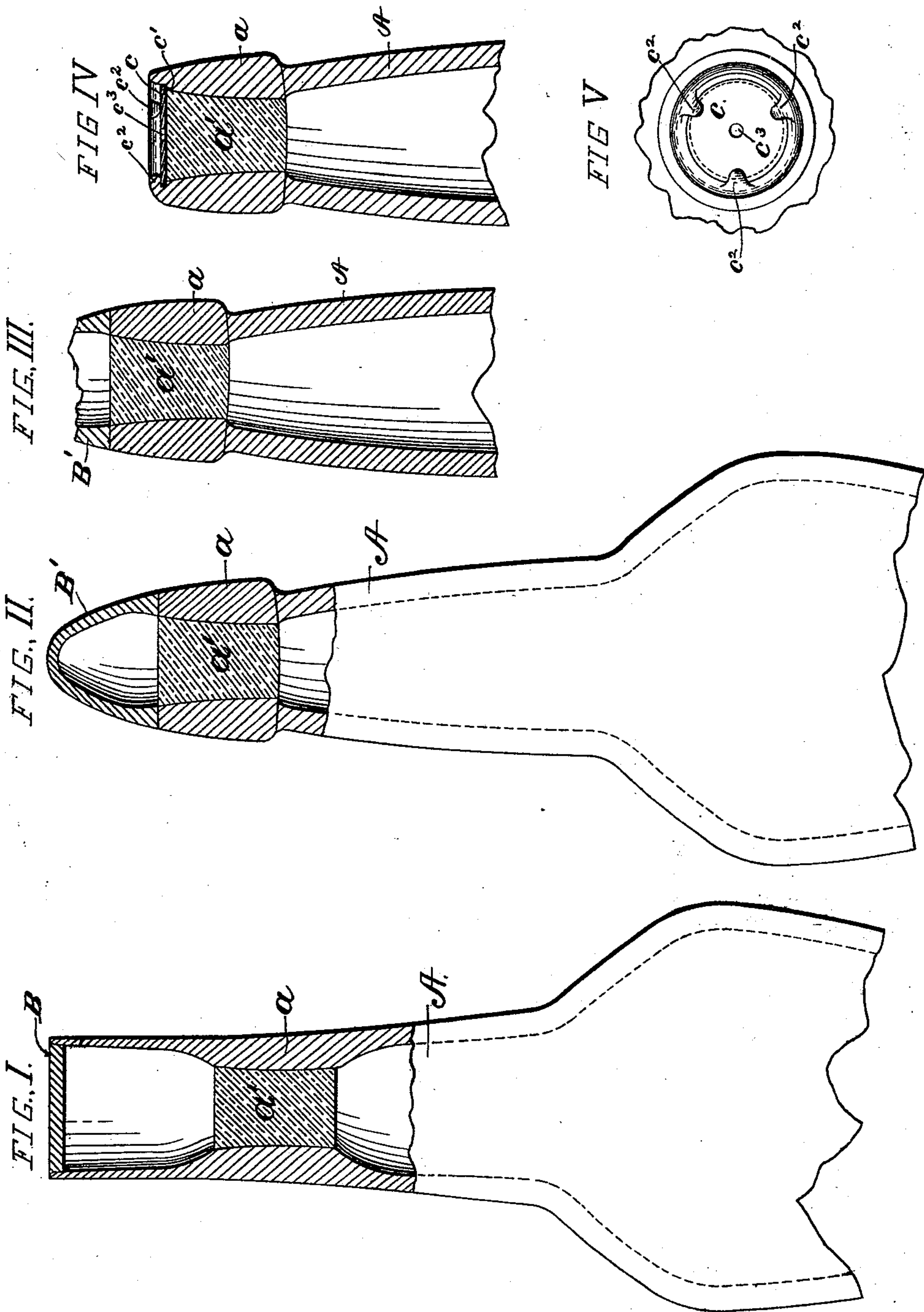


(No Model.)

H. ROBINSON.
BOTTLE SEAL.

No. 518,277.

Patented Apr. 17, 1894.



WITNESSES

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UNITED STATES PATENT OFFICE.

HANSON ROBINSON, OF BALTIMORE, MARYLAND.

BOTTLE-SEAL.

SPECIFICATION forming part of Letters Patent No. 518,277, dated April 17, 1894.

Application filed January 9, 1894. Serial No. 496,262. (No model.)

To all whom it may concern:

Be it known that I, HANSON ROBINSON, a citizen of the United States, and a resident of Baltimore, Maryland, have invented a new and useful Improvement in Bottle-Seals, which improvement is fully set forth in the following specification.

This invention has reference to the sealing or closure of bottles, jars or other vessels, with a view to preventing the withdrawal of the cork and tampering with the contents of the receptacle.

The invention is therefore applicable more particularly to bottles, jars or other receptacles containing choice and expensive brands of liquor, patent medicines and condiments, though the means hereinafter described, for accomplishing the object stated, are of a kind so simple and inexpensive as to admit of their general adoption and use.

It is to be understood that in using the term "bottle" herein I include jars and other similar receptacles to which my invention is equally applicable.

To this end the invention consists in providing the mouth of the bottle with a cap, seal or closure, confining the cork and composed wholly or in part of a brittle material (preferably glass) so constructed and applied that it must be ruptured before access can be had to the cork for the purpose of withdrawing the same. The integrity of the contents of the bottle is therefore guaranteed, so long as the seal remains unbroken. In its preferred form the seal or cap forms a hermetic closure, independently of the cork, and is therefore advantageous in preventing evaporation of the liquor. In the preferred form the seal is effected by a disk or cap of glass applied and welded by fusion to the mouth of the bottle over the cork, the junction being so effected as to preclude the detachment of the disk or cap at the line of joining. The union of the cap or seal and the neck of the bottle may be quickly and conveniently effected by electrical welding, but I do not confine myself to any particular method of accomplishing this result.

The accompanying drawings, which form part of this specification, illustrate several ways of carrying out the principle of the invention, when applied to bottles, it being,

however, equally applicable to jars and other receptacles.

Figure I is a vertical section taken through a bottle to which my invention is applied. Figs. II and III are sectional views showing a different embodiment of my invention, the latter figure showing the seal broken. Fig. IV is a view similar to Fig. II of still another embodiment of the invention, and Fig. V is a top view of the structure illustrated in Fig. IV.

Referring to the drawings (Fig. I) A represents the neck of the bottle having a thickened inwardly projecting portion at *a* giving sufficient strength to withstand the pressure imposed thereupon in forcing the cork *a'* to its place. Above the thickened portion *a* the thickness of the glass forming the neck of the bottle is gradually reduced preferably forming a flaring opening in the neck above the cork, this facilitating the introduction of the latter. A glass disk B fits into the mouth of the bottle and is welded thereto by fusion forming a hermetic closure. The gradual reduction in the thickness of the glass forming the neck of the bottle (above the cork) from the thick portion *a* to a comparatively thin wall at the mouth of the bottle, prevents the cracking of the glass upon cooling and contraction of the same after welding the disk B in place. The neck is diminished to such extent that it will break off under the seal where the glass is thinner than that of the seal itself.

In Figs. III and II, I have illustrated a slightly different embodiment of my invention in which the closure confining the cork is formed by a glass cap or cover B' fitted upon the mouth of the bottle, and welded thereto as before described, after the cork has been forced to its place.

In the arrangement illustrated in Figs. IV and V instead of having a complete glass cap over the cork I employ a metal disk *c* which covers the cork *a'* and rests at its edge against an annular shoulder *c'* at the mouth of the bottle. After disk *c* has been put in place, the glass forming the mouth of the bottle above the same is fused and turned down at several points against the disk forming retaining lips or lugs *c*². As shown there are three of these holding lips or lugs, but the

number may be greater or less. The lips c^2 are so constructed as to be readily broken or fractured to permit of the withdrawal of the cork. In the disk c is an opening c^3 for the
5 insertion of a cork-screw into the cork a' , whereby upon the application of moderate force, the lips c^2 are broken or torn away by the disk c and the cork withdrawn.

Other methods of breaking away the lips
10 c^2 may however be resorted to.

To gain access to the corks in the structures shown in Figs. I, II, and III, it is only necessary to break away the cap or cover over the cork in any convenient manner.

15 What I claim as my invention—

1. The combination with the neck of the bottle having a cork therein, of a seal comprising a glass cap or cover fused to the mouth of the bottle above the cork, substantially as
20 described.

2. The combination with a bottle having a cork therein of a cap, seal or closure composed wholly or in part of a brittle material extending over the cork, and closed by fus-

ion, thereby preventing the withdrawal of the
25 cork without fracture of the closure, substantially as described.

3. In a bottle seal the combination with the neck of the bottle formed of a comparatively thin wall at the mouth thereof, and increasing in thickness toward the body of the bottle
30 a cork driven into the thickened part of the neck and a cap or cover welded to the mouth of the bottle, substantially as described.

4. A bottle provided with a hermetic closure of glass confining the cork, and formed
35 by a seal or cap fused to the mouth of the bottle the walls of the closure having a portion of less thickness than the thickness of the glass at the line of union, substantially as
40 described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HANSON ROBINSON.

Witnesses:

PHILIP MAURO,
REEVE LEWIS.