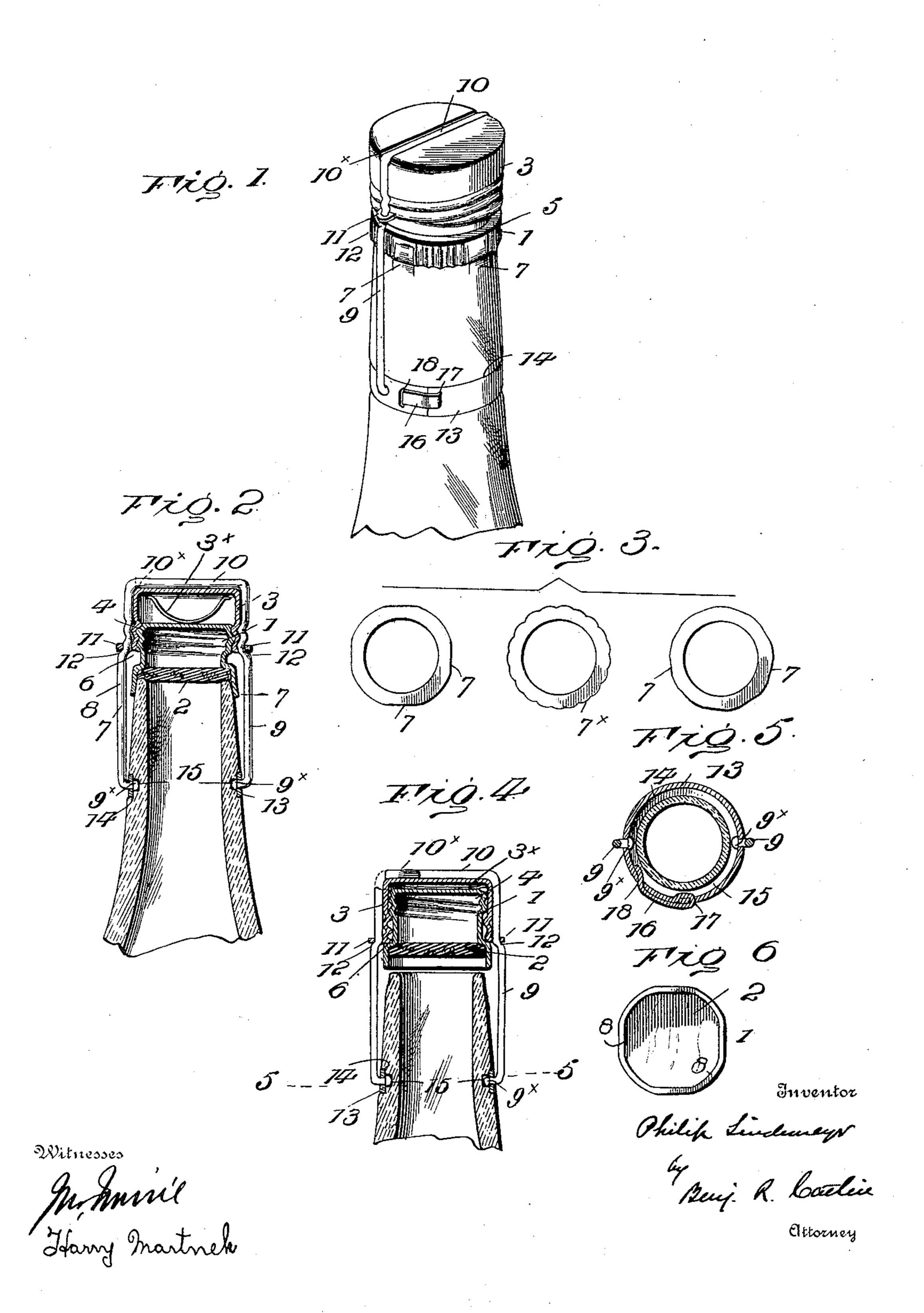
## P. LINDEMEYR. BOTTLE STOPPER.

(No Model.)

(Application filed June 11, 1900.)



## United States Patent Office.

PHILIP LINDEMEYR, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE MARYLAND STOPPER COMPANY, OF SAME PLACE.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 658,661, dated September 25, 1900.

Application filed June 11, 1900. Serial No. 19,792. (No model.)

To all whom it may concern:

Be it known that I, PHILIP LINDEMEYR, a resident of Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to bottle-stoppers, and has for its object to provide an efficient stopper primarily designed for bottles or other vessels holding their contents under a pressure above the normal and which can be conveniently manipulated either to close or open the bottle.

The invention consists in the construction

herein described and pointed out.

In the accompanying drawings, Figure 1 is a perspective of the bottle-stopper on a bottle-neck. Fig. 2 is a longitudinal section of the same. Fig. 3 comprises three plans of bottle-mouths provided with cap-engaging faces. Fig. 4 is a longitudinal section of the stopper, the cork-holder being shown in raised situation within its case with its screw-threads disengaged from the threads of the case. Fig. 5 is a transverse section taken through the stopper-frame-supporting band. Fig. 6 is a bottom view of a cap, with plain faces adapted to engage similar faces on a bottle, such as indicated in the left-hand plan of Fig. 3.

Numeral 1 denotes a cork-holder, and 2 a cork.

35 3 is a case to receive the upper end 4 of the cork-holder, which may have a diameter less than that of the lower portion 5. The holder has an exterior screw-thread near the upper end of its smaller part 4, by which it is adapted ed to be screwed in the case, the latter having a suitable interior thread next its lower end. The construction is such that the holder thread can be disconnected from the case-thread above the latter and so that the holder has free lengthwise play between the case-top and its thread.

3× denotes a spring opposing this play and holding the lower end of the cork-holder thread in situation to engage the upper end 50 of the case-thread, so that the rotation of the

case will engage the threads with certainty. Said play, limited by the spring, permits the cork-holder when not connected by its thread to the case to be pushed up in said case, and provision is thus made for easily swinging the 55 cork - holder in alinement with the bottlemouth.

6 is a stop to prevent the holder from being screwed out of the case. This stop is conveniently made integral with the case and 60 bent inwardly and against or very close to the holder below its thread.

The cork-holder when seated on the bottleneck is locked against rotation thereon by any suitable engagement therewith. In Fig. 65 3 the bottle-neck is shown provided with plain exterior faces 7, which engage like faces 8 in the cap. The number of these faces may vary, one on each part being operative. By the use of a number uniformly placed a slight ro- 70 tation of the holder with respect to the bottle will cause their respective faces to register. If the bottle-faces are made convex, as indicated at 7<sup>×</sup> in Fig. 3, and the holder provided with similar faces, a like effect is pro- 75 duced. Preferably these faces disappear in the surface of the bottle at their lower end and the corresponding faces at their upper end in the holder to avoid lodging-places for refuse.

It is obvious that with the described construction the holder can be placed on the bottle-neck by a movement in the line of the axis of the cap. This may be effected by gravity or by a spring 3<sup>×</sup> situated between the 85 cork-holder and holder-case.

The holder-case 3 is held on the bottle in operative relation to the holder by wire arms 9, preferably integral with a cross portion 10. The wire arms 9 pass through perforated lugs 90 11, formed on the case.

12 denotes shoulders or bends, which hold the case up against the cross-wire 10. The lugs 11 may be compressed on the wires sufficiently for this purpose without the use of 95 the shoulders 12. In practice, however, it is preferred after forming the thread in a thin metal case to bend the wires to fit the threads of the case on their exterior, as indicated in Figs. 1 and 2. The cross-wire 10 will pref- 100

erably besunk in a suitable groove 10<sup>×</sup>, formed in the holder. By these means the case and wire or wires are firmly secured together. They constitute a frame to support and carry 5 the cork-holder vertically adjustable in said frame.

The arms 9 are pivotally connected to a band 13, situated in a groove 14, formed in the bottle-neck. In the bottom of groove 14 is a 10 smaller groove 15, which receives the bent and enlarged ends 9<sup>×</sup> of the wire arms 9, as shown. It also receives so much of the band-closing tongue 16 as lies on the inside of the band. The tongue on one end of the band is passed 15 into the groove 15 under the other end of said band and out through a slot 17, at which point it is bent back and its end passed through a slot 18 in the other end of the band, so that its free end lies in groove 15. No loops or offsets 20 for the tongue are required in the band, the outer surface of which is practically continuous with that of the bottle-neck.

The described devices having been assembled and connected by the band to a bottle 25 or other vessel, the cork-holder being unscrewed from its case with its upper screwthreaded end above the case-threads, and the case and holder swung to one side, the bottle can be stoppered by swinging the case and 30 holder over the bottle-mouth and adjusting the holder on the bottle and turning the case to cause its thread to engage the holder-thread, whereupon the case, wire, and band can be turned to screw and force the holder down 35 and firmly seat it upon the bottle and compress its cork upon the bottle-lip. For this last operation the wire, case, and band can be grasped and manipulated as a unit with the advantage of using practically the full 40 power of the hand. The opening of a bottle may be effected in like manner by a reverse movement, and gas may be allowed to escape by degrees and non-explosively.

Cork-holders have heretofore been manipu-45 lated by swinging frames. My improvement provides that the holder can be readily adjusted in its supporting-frame so that when swung to register with the bottle-mouth it will entirely clear it, being at such time freely 50 movable lengthwise in the frame. It also provides for a subsequent engagement of the holder with the frame and with the bottle, the engagement with the frame being a screwthread connection whereby the frame can be 55 used to firmly seat the cork-holder and cork upon the bottle.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. For use in closing a vessel, a freely-movable frame, and a cork-holder adapted to be held in said frame and freely movable lengthwise therein and also adapted to be connected therewith at will by rotation thereof.

2. For use in closing a vessel, a freely-movable frame, a cork-holder freely movable lengthwise in the frame and adapted to be

connected at will to said frame by a screwthread connection, and means to lock the holder against rotation on the vessel, the 70 frame being rotatable and adapted to force the holder upon the vessel-mouth.

3. For use in closing a vessel, a rotatable cork-holder case, a cork-holder in said case and having interior faces to engage faces on 75 the vessel to prevent independent rotation, the holder and case having a screw-thread connection.

4. For use in closing a vessel, a cork-holder having interior faces to engage faces on the 80 vessel to prevent independent rotation, and a movable frame operatively connected to the holder to force the holder on the vessel.

5. For use in closing a vessel, a cork-holder having interior faces to engage faces on the 85 vessel to prevent independent rotation, and a movable frame operatively connected to the holder to force the holder on the vessel, the holder being adapted to be separated from the vessel and moved to a situation in the 90 frame where it is freely movable either lengthwise or rotarily.

6. A vessel having grooves 14 and 15, a band seated in groove 14, a cork-holder-supporting frame having side members provided 95 with pivots 9<sup>×</sup> passing through the band into groove 15.

7. A vessel having grooves 14 and 15, a band seated in groove 14, a cork-holder-supporting frame having side members provided 100 with pivots  $9^{\times}$  passing through the band into groove 15, said band having its ends connected by a tongue lying in said latter groove.

8. A vessel provided with a groove in its neck to receive a frame-supporting band, the 105 frame having pivots, and a cork-holder supported by said frame, and said groove having a groove in its bottom to receive the framepivots.

9. A cork-holder, a cork-holder-supporting 110 frame comprising a case for said holder movable with the frame and comprising wires fixed to the sides of the case, said wires having inwardly-turned pivots entering a depression in the neck of a vessel.

10. A cork-holder, a cork-holder-supporting frame comprising a case for said holder movable with the frame and wires fixed to the sides of the case and having pivots to engage the neck of a vessel, said case having 120 perforated case-lugs to receive the wires fixed therein.

11. A cork-holder, a cork-holder-supporting frame comprising a case having screwthread connection with the holder, and wires 125 adapted to hold the frame to a vessel and fixed to the sides of the case by bends in the wires conforming to the case-threads.

12. For use in closing a vessel, a cork-holder having screw-threads near its top, a holder- 130 supporting case having similar threads near its bottom whereby the holder can be screwed into the case and thereupon forced upon a bottle, said holder-threads being adapted to be

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disengaged to permit the holder to be freely moved endwise between the case-threads and

case-top.

5 having screw-threads near its top, a holder-supporting case having similar threads near its bottom whereby the holder can be screwed into the case and thereupon forced upon a bottle, said holder-threads being adapted to be disengaged to permit the holder to be freely moved endwise between the case-threads and case-top, and a stop to prevent the holder from removal from the case by unscrewing.

14. The combination of a vessel, a cork-15 holder, and a cork-holder case, said holder being non-rotatable and the case rotatable when the former is seated on the bottle.

15. The combination of a vessel, a corkholder, a corkholder case, said case and holder having a screw-thread connection, means to hold the case to the vessel, and a spring to insure the engagement of the holder-thread with the case-thread when the parts

are disengaged and preparatory to screwing

them together.

16. A vessel having a circular mouth provided with a plurality of faces about said mouth on its exterior, a cork-holder having corresponding faces, and a rotatable cork-holder case to cause the engagement of the 30 similar bottle and holder-faces and seat the cork.

17. In combination with a cork-holder, a cork-holder case closely embracing the holder and closed at its top to exclude refuse from 35 the connection, said closed holder-case top having a groove in its top to receive a holder-frame wire.

In testimony whereof I have signed this specification in the presence of two subscrib- 40 ing witnesses.

## PHILIP LINDEMEYR.

Witnesses:

G. W. BALLOCH, BENJ. R. CATLIN.