

(No Model.)

C. DE QUILLFELDT.
BOTTLE STOPPER.

No. 588,009.

Patented Aug. 10, 1897.

Fig:1

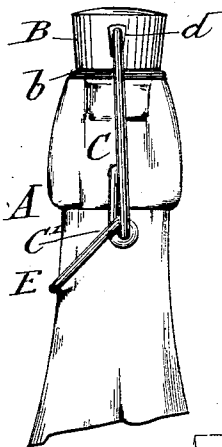


Fig:2.

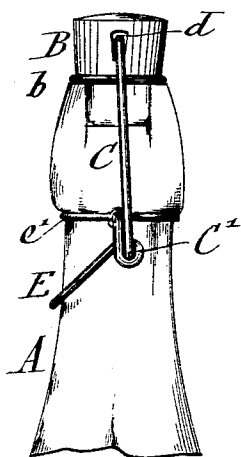


Fig:3.

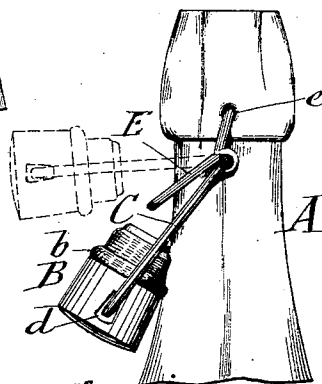


Fig:4.

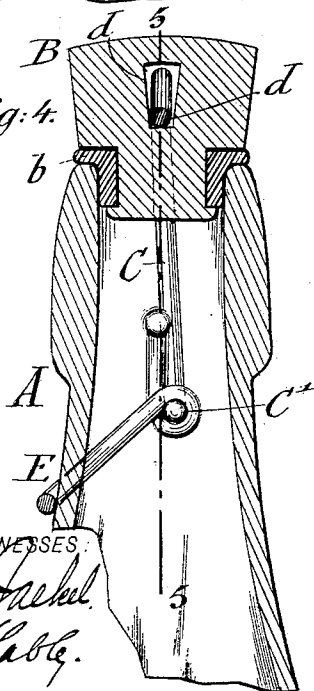
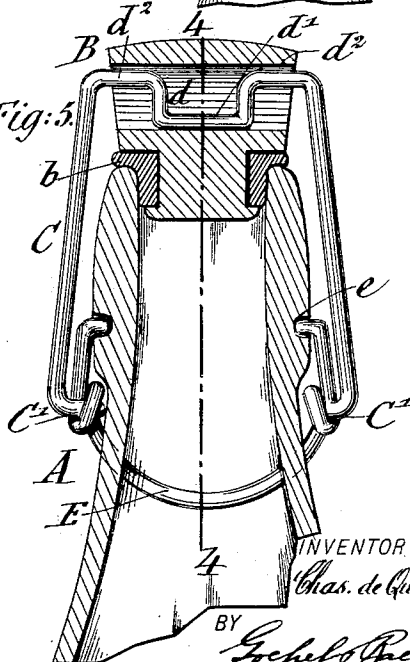


Fig:5.



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BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 588,009, dated August 10, 1897.

Application filed February 19, 1897. Serial No. 624,090. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DE QUILLFELDT, a citizen of the United States, residing at Amityville, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

My invention relates to certain improvements in bottle-stoppers of that class in which a porcelain head provided with a rubber gasket on its shank is employed in connection with means for forcing said stopper into and retaining it on the mouth of the bottle, my improvement being designed with the view of preventing the bail or yoke from having too close a contact with the lower edges of the opening in the stopper-head and with the rubber gasket, which causes disagreeable chipping off of the edges of the transverse opening in the stopper-head or the breaking of the head itself, and the crushing and cutting of the rubber gasket or packing by the great pressure of the bail on the stopper-head and rubber gasket, which very frequently causes leakage.

The invention consists of a bottle-stopper the head of which is provided with a central opening extending transversely through the same, a locking-bail passing through the opening and provided on its cross-piece with a downward-bent portion that bears on the lower central part of said transverse opening in the stopper-head, the shoulder portions of the cross-piece on each side of the bent portion being separated from the bottom of the transverse opening, so as to clear the same, and means for attaching said bail to the bottle, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figures 1 and 2 represent a side elevation of the neck of a bottle with my improved bottle-stopper in position thereon, showing two forms in which the bail is respectively shown as pivoted directly to the neck or to a neck wire or band. Fig. 3 is a side elevation, showing the stopper swung down in open position. Fig. 4 is an enlarged vertical transverse section of said bottle-stopper on line 4-4, Fig. 5; and Fig. 5 is also a vertical section of the stopper

on line 5-5, Fig. 4, taken on a plane at right angles to that of Fig. 4.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the neck of a beer or other bottle, and B a stopper the head of which is preferably made of porcelain that is provided with an annularly-grooved shank for receiving a rubber gasket C.

The head of the stopper B is provided with a central transverse opening *d*, slightly wider but longer than the downwardly-bent central portion of the bail C, to be referred to later, so as to freely admit the same, but not so large that this stopper-head B can revolve on or turn to the sides of the bail C after the same has been bent to U shape, which is done after it has been inserted in the stopper-head.

I prefer to make the transverse opening *d* somewhat wider at its upper than at its lower part, although it is not absolutely necessary to its perfect working as long as sufficient space is allowed to give the stopper-head B a slight rocking motion upon the bail C. The ends of the bail C are bent inward and pivoted at C' to a locking-lever E, which is either pivoted directly in depressions or eyes *e* in the bottle-head, as shown in Fig. 1, or to a neck wire or band *e'*, applied around the neck of the bottle in the usual manner, as in Fig. 2.

The stopper B moves into closed position into the mouth of the bottle or into open position alongside the neck, as shown, respectively, in Figs. 1 and 3.

The bail C is provided at its central part, which passes through the transverse opening *d* of the stopper-head B, with a downwardly-bent portion *d'*, which presses on the central lower part of the transverse opening *d* when the stopper is in closed position, as shown in Figs. 4 and 5. The upper shoulder or bent portions *d''* above and on each side of the central bent portion *d'* of the bail C are separated a suitable distance from the bottom of the opening *d*, so as to entirely clear the same and press on the upper part of the transverse opening *d* when the same is to be lifted away from the mouth of the bottle.

My improved bottle-stopper has the advantage over other porcelain stoppers, that by the peculiar construction of the transverse or cen-

tral portion d' of the bail C and the transverse opening d no chipping or breaking of the same nor injury to the rubber gasket whereby it is caused to leak takes place, thereby obviating the objectionable features of bottle-stoppers with porcelain heads.

Another advantage of my improved bottle-stopper is that the central bent portion d' of the bail C, located in the transverse opening d of the stopper-head, prevents the free sliding and revolving of the stopper B on the bail C and is therefore always in correct position for use when the bottle is to be closed, and from the central bend d' of the bail C and its central bearing in the stopper-head a springy action is derived, which readily adjusts itself to the irregularities unavoidable in the manufacture of porcelain stopper-heads and bottles.

Having thus described my invention, what I claim is—

1. The combination, with the stopper, having a straight transverse opening, of a locking-bail having a transverse portion passing through said opening, and provided with a downwardly-bent portion, said transverse portion having at each side of the downwardly-bent portion raised shoulder portions

separated from the straight bottom of the transverse opening so as to clear the same at each side of the downwardly-bent portion, and means for applying said bail to the neck of a bottle.

2. The combination of a stopper, having a straight transverse opening in the head of the same, of a bail, the transverse portion of which is provided with a downwardly-bent central portion and also with raised shoulder portions at each side of the downwardly-bent portion, said shoulder portions being separated from the straight bottom of the transverse openings so as to clear the same, and means for attaching said bail to the neck of the bottle, the height and width of the slotted opening in the head of the stopper being slightly greater than the height and thickness of the downwardly-bent central portion of the bail, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHAS. DE QUILLFELDT.

Witnesses:

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