

(No Model.)

C. SCHROEDER.
CORKING BOTTLES.

No. 487,451.

Patented Dec. 6, 1892.

Fig. 2.

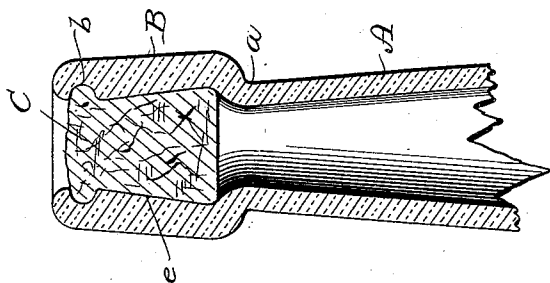


Fig. 1.

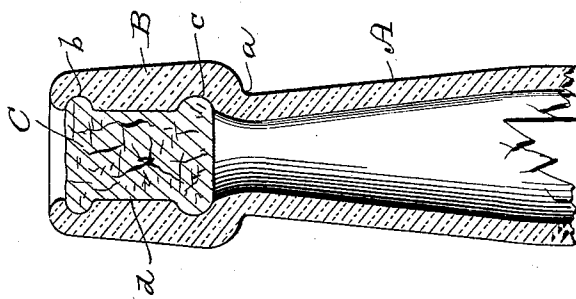
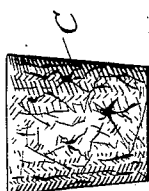


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CONRAD SCHROEDER, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF NINETWENTIETHS TO ANTON STOLLENWERK, OF SAME PLACE.

CORKING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 487,451, dated December 6, 1892.

Application filed March 28, 1892. Serial No. 426,730. (No model.)

To all whom it may concern:

Be it known that I, CONRAD SCHROEDER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Corking Bottles; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to an improvement in corking bottles; and it consists in certain peculiarities of construction of the upper part of the bottle and the combination of the cork therewith, all as will be fully set forth hereinafter and subsequently claimed.

In the drawings, Figure 1 represents a vertical section of the upper part and neck of a bottle having one form of my invention applied thereto. Fig. 2 is a like view representing another form of the same, and Fig. 3 represents in elevation the short cork used.

By my present invention I am enabled to perfectly and with certainty stopper a bottle with ordinary cork as the material, with the use of less of said material than is commonly employed, and without the application of wires or any other extra fastening, and also without projecting the cork above the top or below the choke in the neck of the bottle.

A represents the neck of a bottle such as is ordinarily employed to hold beer, wine, or other potable fluid. *a* represents the choke in the bottle-neck, and B the head of the same. In Fig. 1 the interior of said head is provided with two circumferential concave grooves *b* and *c*, both extending entirely around the inner surface. The groove *b* is just below the line of the top of the bottle-head, and the groove *c* is in the lower part of said head just above the line of the choke *a* of the neck, leaving a wall *d*, which in Fig. 1 is shown as practically vertical between the two grooves.

In Fig. 2 I show the bottle-neck, choke, and exterior of the head as before, and also provide the concave groove *b* close to the top; but in this figure I dispense with the lower groove (shown in Fig. 1) and in place thereof I enlarge the bore in the head below the groove, the wall *e* of this bore flaring downward, as shown, to a point just above the line

of the choke and so that the widest part of this opening is preferably equal in diameter to that of the widest part of the groove *b* above, or that of the widest part of the groove *c* in the form shown in Fig. 1.

C is the stopper, which is shown in elevation in Fig. 3 and which is made of ordinary cork. This cork is considerably shorter than those usually employed, for in the ordinary mode of corking bottles the cork must be long enough to be driven down below the choke, dependence being had upon the expansion of the cork below the latter to secure it in place, although even then it is usually necessary to employ wire fastenings. My cork is only about one-third of the length of the ordinary cork and is preferably slightly tapering, the diameter of the smallest part of the corks being at least equal, however, to that of the widest part of the grooves or enlargement in the bottle-heads, as otherwise the corks will offer resistance in being driven to place; but when they are in place the upper and lower portions of the cork, which have just been compressed, will now expand, tightly fitting against all the adjacent surfaces, the top of the cork entering the top groove and the lower part of the cork filling out the lower groove *c* in Fig. 1 or the flared-out wall *e* in Fig. 2, and being securely held in place beyond the danger of accidental expulsion from the force of the gaseous contents of the bottle by reason of such expansion and the intermediate constriction of the cork, and yet capable of being very readily drawn when required.

By the use of my invention great economy in the use of cork is effected and the flavor of the contents of the bottle is not in any wise affected, as it is with rubber and other composition stoppers frequently used.

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

1. A bottle provided with an interior concave circular groove in its head just below the top thereof, a choke or contraction in the bottle-neck in line with the base of the bottle-head, and an annular enlargement of the bore of the head, having its greatest diameter just above the choke, in combination with a free short stopper of cork whose upper and

lower portions are expanded, respectively, into the said groove and enlargement, thereby closing the entire bore of the bottle-head from a point immediately below the top to a point immediately above the choke, substantially as set forth.

2. A bottle provided with interior annular enlargements in its head adjacent to the extremities thereof and a choke or contraction in the bottle-neck in line with the base of the bottle-head, in combination with a free short stopper of cork expanded into said enlargements below the top and above the choke of the bottle and constricted at a point intermediate of said points of expansion, whereby the greater length of said cork will be between the points of greatest diameter of the bore of said bottle-head, substantially as set forth.

3. A bottle provided with an interior concave circular groove in its head immediately below the top thereof, a choke or contraction in the bottle-neck in line with the base of the bottle-head, and an annular enlargement of the bore of the head having its greatest diameter immediately above the choke, the wall of said bore presenting a smooth surface between its points of greatest diameter, in combination with a free short stopper of cork

whose upper and lower portions are expanded, respectively, into the said bore at said points of greatest diameter, said cork being entirely below the top and above the choke of the bottle-head, substantially as set forth.

4. A bottle provided with an interior concave circular groove in its head just below the top thereof, a choke or contraction in the bottle-neck in line with the base of the bottle-head, and an annular downward-flaring enlargement of the bore below said groove, having its greatest diameter just above the choke, in combination with a free short stopper of cork whose upper and lower portions are expanded, respectively, into the said groove and enlargement, thereby closing the entire bore of the bottle-head from a point immediately below the top to a point immediately above the choke, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CONRAD SCHIROEDER.

Witnesses:

H. G. UNDERWOOD,
N. E. OLIPHANT.