(No Model.)

W. R. CLOUGH.

CAPSULE FOR BOTTLES.

No. 332,382. Patented Dec. 15, 1885.

Fig. 1.

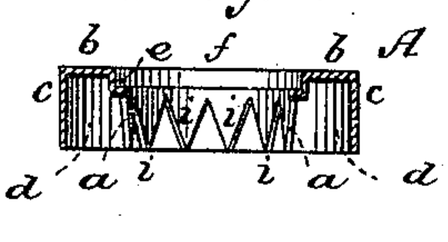


Fig. 2.

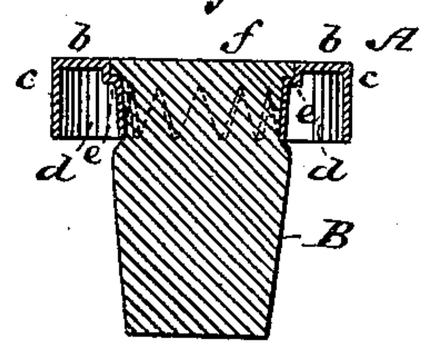


Fig. 3.

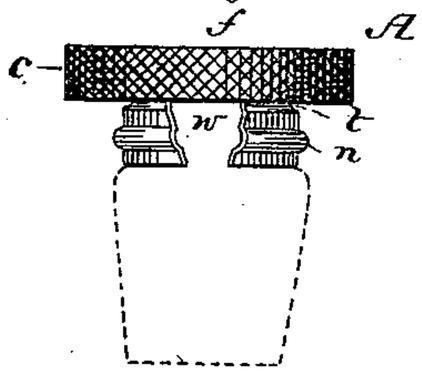


Fig. 4.

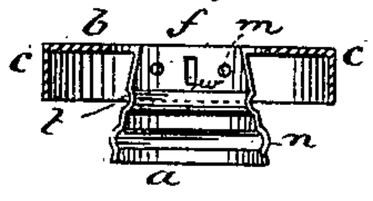
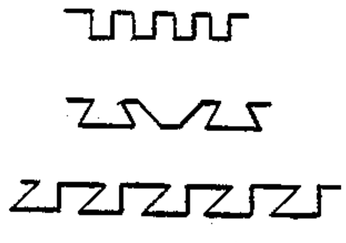


Fig. 5.



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CAPSULE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 332,382, dated December 15, 1885.

Application filed September 1, 1885. Serial No. 175,885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. CLOUGH, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Capsules for Bottles, of which the following is a specification.

The invention relates to improvements in capsules for bottle-stoppers; and it consists in a novel construction closely encompassing the cork or stopper at or near the top when in use and projecting therefrom to form a means whereby the cork may be withdrawn from the bottle by hand without additional appliances. The center of the capsule is removed, forming an opening corresponding with the contour of and slightly smaller than the full or expanded cork, and around this central opening is provided a dependent flange or teeth or similar devices, which firmly binds the cork after it has been driven through the opening and prevents the same from having any independent movement. The said dependent flange, teeth, or similar devices will, preferably, when in use project downward into the neck of the bottle a short distance, and the central opening in the top of the capsule will leave the upper surface of the cork exposed, permitting thereby, if found necessary or desirable, the use of a corkscrew for extracting the cork and affording a surface for the application of a wax or other seal, label, or cap, of paper, metal, or other material, bearing, if desired, a trade-mark or matter indicative of the contents of the bottle in connection with which the capsule may be employed. The capsule will be manufactured from material sufficiently stiff to prevent its being broken by the expansive action of the cork when driven into it, and to permit the withdrawal of the cork by pressure applied to its upper projecting edges. It is desirable that the dependent flange surrounding the opening in the capsule shall enter the mouth of the bottle and be provided with teeth more or less flexible, in order that the expansive action of the cork against said teeth and the inner walls of said mouth may serve to more firmly unite the cork with the capsule. One material advantage of providing the above dependent flange with a flexible circumference is that it may be fitted to bottle-mouths of varying sizes, although it is not to be understood that it is absolutely essential in all cases to the correct working of the device that said dependent flange should enter the mouth of the bottle at all, nor that the said flange should be flexible.

In the accompanying drawings, forming a part of this application, I illustrate two embodiments of the invention, from which its practical application to the cork, according to the nature of the bottle and its contents, will be readily understood.

Figure 1 is a central vertical section of one form of capsule constructed according to the invention. Fig. 2 is a similar view of same encompassing a cork, and showing the relative positions of the capsule and cork when in use. Fig. 3 is side elevation of a modified form of the capsule, the cork being shown by dotted lines; and Fig. 4 is a central vertical section of same, the cork being omitted. Fig. 5 is a view of various forms of teeth which may be substituted for the teeth shown in Fig. 1.

In the drawings, A denotes the capsule, and B the cork or stopper. The capsule consists of the dependent flange *a* and the flange *b*, projecting therefrom, the outer edges, *c*, of the latter being utilized to form a ring or surface by which the capsule and cork may be handled between the finger and thumb. The edges *c* of the capsule will be of such proportions that the capsule may be conveniently handled by it; but its exact dimensions, and whether they are turned upward or downward, as shown, or left flat, are matters which will be governed largely by the taste of the manufacturer. I prefer, however, to give the edges *c* the form of a milled or corrugated flange, whereby the appearance of the capsule will be improved and a suitable handling-surface afforded. Between the flanged edges *c* and the flange *a* is formed the annular space *d*, into which the upper edges of the neck of the bottle may pass; and around the upper edges of the flange *a* (shown in Fig. 1) is formed the annular shoulder *e*, over which the upper edges of the cork expand, as indicated in Fig. 2, and thereby oppose the separation of the cork and capsule

when the latter is drawn upward from the bottom for the purpose of extracting the cork therefrom.

In the use of the invention the capsule may be placed over the neck of the bottle, the flange *a* preferably extending downward into the mouth thereof, and the cork is driven through the central opening, *f*, into the capsule and neck of the bottle at a single operation, the capsule resting flat on the top of the bottle. In this condition the expansive action of the cork will cause it to bind firmly against the flange *a* and the inner wall of the neck of the bottle below said flange, whereby the bottle will not only be securely sealed, but the cork and capsule will be firmly united. The capsule and cork may, however, be first connected by the latter being inserted into the former, and afterward applied to the bottle. The cork may be extracted, as will be understood from the foregoing description, by turning or pulling or pressing upward on the edges *c* of the capsule, or, the upper end of the cork being exposed, an ordinary corkscrew may be utilized for this purpose, if desired. The upper exposed end of the cork also affords a surface whereon a paper or metal label may be attached, if desired. A metal label or other device, as hereinbefore described, could easily be applied over the cork. It will not be necessary in all instances to employ the shoulder *e;* but I recommend its use, owing to the fact that it facilitates the firm union of the capsule and cork. In order to insure the rigid attachment of the cork and capsule to each other, the dependent flange *a*, instead of being plain, as may be the case, if preferred, may be serrated or toothed, as shown in Fig. 1, or be provided with other means of engaging the cork—as depressions, elevations, apertures, or slots, as shown in Figs. 3 and 4—the purpose of the engaging means being, during the expansion of the cork, to bind the latter and prevent its turning within the capsule or becoming detached therefrom. After the cork has been driven through the capsule, it will expand into the spaces between the teeth *i*, or into the apertures *m* or elevations *n*, or on each side of the depressions *t*, or into the slots *w*, and bind itself into position, so that when the capsule is turned or drawn from the bottle the cork will necessarily follow it. If the teeth or other means were not provided, the opening *f* could be of such size as to securely hold the cork in ordinary cases; but when the engaging means are made use of the rigid union of the capsule and the cork is insured. If the cork, when driven through the opening *f* into the neck of the bottle, should protrude upward therefrom, being too long for the bottle, its projecting end may be removed, if desired, by a knife moving on a level with the upper surface of the capsule.

What I claim as new, and desire to secure by Letters Patent, is—

1. A capsule and cork, the former firmly encompassing the latter at or near the top and having a flange projecting therefrom, the upper end of the cork being exposed, substantially as and for the purposes set forth.

2. A capsule and cork, the former firmly encompassing the latter at or near the top and having a shoulder over which the adjacent portions of the cork may expand, and a flange projecting therefrom, the upper end of the cork being exposed, substantially as and for the purposes set forth.

3. A capsule and cork, the former being open at the center to receive the cork and having a flange projecting therefrom, and engaging devices to insure the firm union of the cork and capsule, substantially as set forth.

4. A capsule and cork consisting of the dependent flange *a*, closely encompassing and binding the cork, and the projecting flange *b*, the outer edges of which form surfaces enabling the capsule and cork to be handled, the top of the latter being exposed, substantially as and for the purposes set forth.

5. A capsule and cork consisting of the dependent flange *a*, having engaging devices closely encompassing and binding the cork, and provided with the projecting flange *b*, the outer edges of which form handling-surfaces, substantially as set forth.

6. A capsule for corks, consisting of the dependent toothed flange *a*, adapted to closely encompass and engage the cork, and the projecting flange *b*, substantially as and for the purposes set forth.

7. A capsule and cork, the former having engaging devices which firmly bind the latter at or near the top, and having, also, a flange extending from said devices, the top of the cork being exposed, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 31st day of August, A. D. 1885.

WILLIAM R. CLOUGH.

Witnesses:

CHAS. C. GILL,

GEO. A. BOWMAN.