

No. 855,917.

PATENTED JUNE 4, 1907

A. WESTLAKE.
BOTTLE STOPPER.
APPLICATION FILED APR. 17, 1906.

Fig. 1.

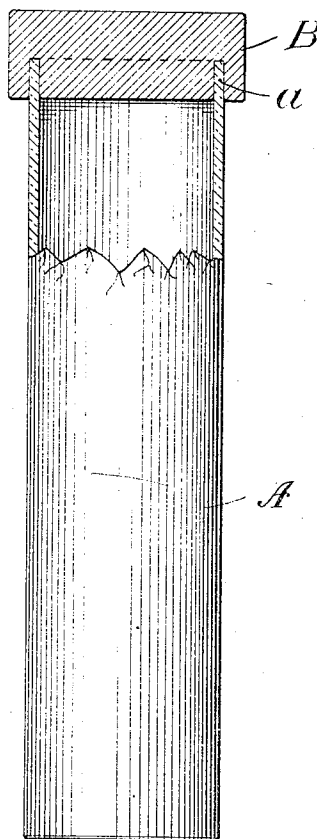
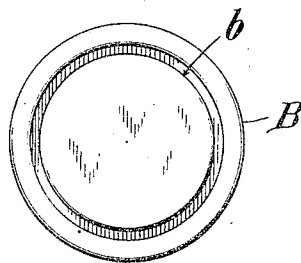


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

ALBERT WESTLAKE, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

No. 855,917.

Specification of Letters Patent.

Patented June 4, 1907.

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To all whom it may concern:

Be it known that I, ALBERT WESTLAKE, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

The object of my invention is to provide an exceedingly simple, cheap and effective cork or stopper for bottles, test-tubes and other articles of glass, porcelain, or other slippery surface and one which will resist a high degree of pressure whether caused by the generation of gases inside the bottle or by the weight of the contents, while at the same time the cork or stopper encroaches much less upon the internal space of the bottle or test-tube than is usually the case, and yet affords an air-tight and water-tight closure so that the contents are effectively sealed and may be preserved without fear of evaporation, or decay.

Heretofore to get an effective seal, especially in the case of carbonated liquids, not only has the cork or stopper extended well into the neck of the bottle but in many instances sealing-wax, metal caps, or wire are used to hold the cork from explosive ejection or from leaking by evaporation.

While in exceptional cases of especial pressure from inside some reinforcement may be needed I have found that my improved cork or stopper is a most effective seal both for solid and liquid contents. To accomplish these results I make a stopper of ordinary cork or any other suitable material such as wood, compressed paper, india-rubber or the like and form it into a substantially flat or disk-like shape slightly larger in diameter than the upper end of the neck of the bottle, test-tube, or other article to which it is to be applied, and on the under side of this disk I ream out or otherwise form a groove of approximately the size and shape of the upper edge of the neck so that when the cork is pressed down over said edge, the edge enters said groove and is held with firm suctional contact both on the inner and outer surfaces of the mouth of the bottle or other receptacle to which it is applied by reason of the inability of air to work in between the side-walls of the groove and the smooth surfaces of the bottle.

Cork or any other flexibly resistant material is preferably employed for this purpose but other substances which can be cut or molded to the proper shape may be used if desired. The depth of the groove will vary with the size of the mouth and somewhat with the internal pressure which has to be resisted, but for ordinary sealing and bottling the stopper need not enter the mouth of the bottle more than an eighth to a quarter of an inch. Where absolute protection of an air-tight kind is desired it is useful to smear a little paraffin, bees-wax, or other gummy waterproof substance in the groove before putting the stopper on the bottle.

One of the simplest forms of applying my invention is shown in the accompanying drawing, in which I have illustrated a small cylindrical tube-like bottle such as are used for tablets and other small medicines or drugs, oils or salves.

Figure 1, is an elevation, the top part broken away to show a sectional view of the engagement of the stopper and neck. Fig. 2, is a bottom plan of the cork or stopper.

Same letters indicate similar parts in the different figures.

A is the tube or bottle, usually of glass and preferably with a smooth upper part of the neck as shown at *a*.

B is the cork or stopper, preferably of ordinary cork or other material which has a good deal of resistance of a resilient character so that it will tend strongly to return to place when pushed aside by the glass neck. In the under side of this stopper I form a groove *b*, which is approximately the same size and shape as the upper edge of the neck *a*, so that appreciable force has to be used to push the cork down snug upon the neck *a*.

It will be readily understood that if the tube A is square, octagonal or of other configuration than round the groove *b*, will conform to that shape.

The many advantages arising from this improved stopper will be readily appreciated without further description. I will only call attention to the fact that bottles, tubes and other articles sealed by my improved cork can be filled, in a strict sense, instead of leaving a space occupied by the cork instead of by the contents,—and also to the great

simplicity of the application and removal of the cork as occasion requires.

I claim:

- 5 A bottle stopper consisting of a thin cap provided on its under side with a shallow groove adapted to receive and inclose the upper smooth edge of the neck of a bottle or

other article to which it is to be applied and of sufficient depth to be held in place on the smooth neck by suction.

ALBERT WESTLAKE.

Witnesses:

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