

J. B. NEWBROUGH.

BOTTLING MINERAL WATERS, &c.

No. 171,240.

Patented Dec. 21. 1875.

Fig. 1

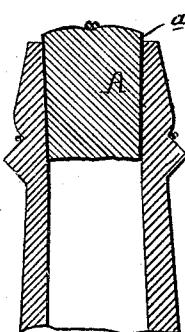
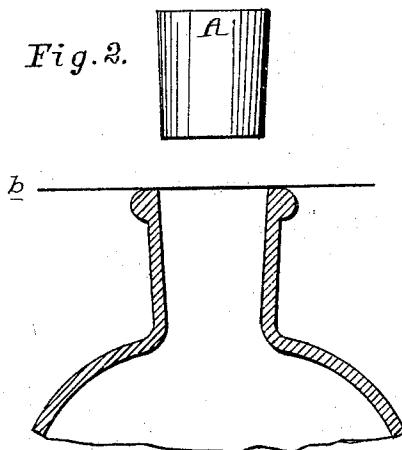


Fig. 2.



Witnesses:

George Thomas

Courtney, A. Cooper

J. B. Newbrough

By his atty.

Charles E. Foster

UNITED STATES PATENT OFFICE.

JOHN B. NEWBROUGH, OF NEW YORK, N. Y.

IMPROVEMENT IN BOTTLING MINERAL WATERS, &c.

Specification forming part of Letters Patent No. 171,240, dated December 21, 1875; application filed October 29, 1875.

To all whom it may concern:

Be it known that I, JOHN B. NEWBROUGH, of the city, county, and State of New York, have invented an Improvement in Bottling Mineral Waters, &c., of which the following is a specification:

My invention consists in an improvement in bottling mineral waters and gaseous and volatile fluids, whereby (using the ordinary corks and bottling apparatus) the volatile portions of the fluid are effectually retained, and the rotting of the cork and the imparting of any peculiar or unusual flavor to the fluid are prevented.

Mineral waters bottled in the usual manner soon deteriorate—this resulting partly from the rotting of the corks, which are rapidly acted on by the waters, and partly from the loss of the gases with which the fluid is impregnated when taken fresh from the spring, but which rapidly escape through the interstices of ordinary corks.

Various means have been employed to overcome these difficulties, either by special preparation of the corks, or by the use of stoppers of rubber or other material, but not with success, owing to the repugnance of bottlers to the use of corks which could not be applied by the ordinary apparatus, to the expense of preparing the corks, and to the fact that by no mode heretofore adopted has the cork been protected without exposing sufficient of the protecting material to the fluid to impart to the latter an unpleasant or unnatural flavor.

I employ the ordinary corks, and insert and secure them in the usual manner; and, at the same time, overcome all the objections heretofore existing by applying to the surface of the cork A, where it is exposed to the action of the liquid, a film, a, of rubber or other material, which completely envelopes that part of the cork within the bottle, accommodates itself to the form of the cork, is too thin to impart any taste to the liquids, or to alter or to modify any of the usual properties of the cork, and yet capable of preventing the direct contact of the water and the cork, and the escape of gases through the pores.

This film of rubber may be applied by placing a disk, v, Fig. 2, of thin rubber cloth upon the mouth of the bottle prior to inserting the cork in the usual manner. As the cork is

forced inward the rubber is distended until it becomes an exceedingly thin film, the cork retaining its elasticity, owing to the pores being open, while the film envelopes all of the cork within the bottle, and effectually prevents direct contact of the fluids with the cork, the rotting of the latter, and the escape of the gases.

It is important that the covering material be exceedingly thin, for two reasons: First, to prevent the impregnation of the fluid with the taste of the rubber, which will occur unless the amount of rubber exposed is exceedingly small; second, that the cork stopper may be used and perform its functions in the ordinary manner.

I am aware that sheets of thin rubber have been permanently secured to corks so as to fold round the latter on inserting them into bottles; but it will be seen that this requires the preliminary preparation of the corks before alluded to as objectionable, and that in forcing the cork through the contracted channel of the bottling-machine the rubber will be stripped off.

It will be seen that, while the cork within the bottle is effectually coated and protected, it has no coating or appendages prior to its introduction into the mouth of the bottle, so that, to insert it, the ordinary bottling machinery may be employed in the usual manner.

I claim—

1. The mode described of bottling mineral waters, &c.—that is to say, applying a sheet of flexible or elastic material to the mouth of the bottle, and then carrying the cork to a position above the sheet, and forcing it downward against the sheet, and into the mouth, so as to stretch the material over the inserted portion of the cork.

2. The combination of the bottle, the cork, and the intervening independent sheet of rubber distended upon that portion of the cork within the bottle during the process of bottling, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. B. NEWBROUGH.

Witnesses:

THOMAS PRUDEN,

CHARLES E. FOSTER.