

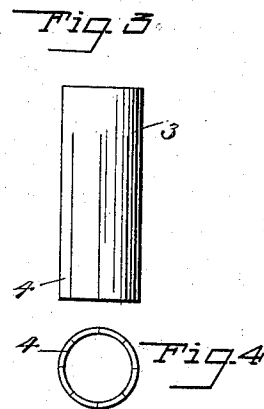
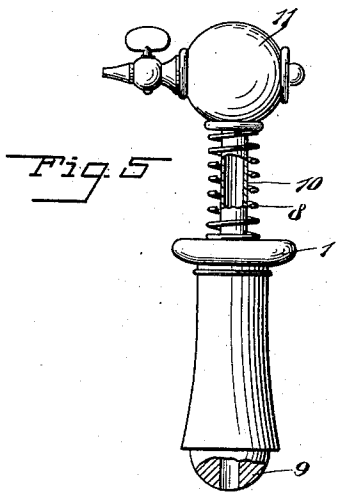
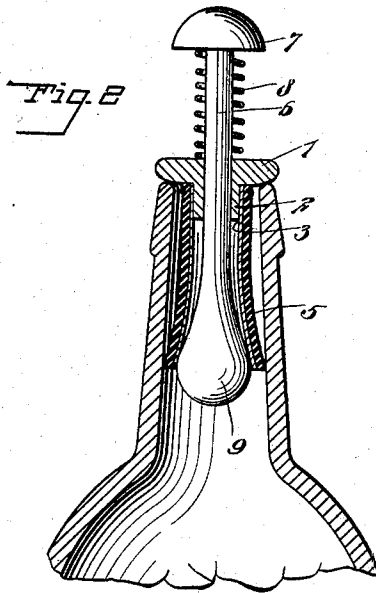
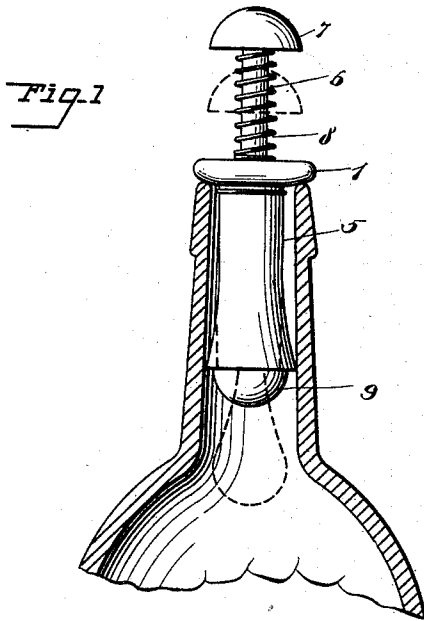
No. 612,676.

Patented Oct. 18, 1898.

U. L. RIFE.
BOTTLE STOPPER.

(Application filed July 29, 1898.)

(No Model.)



WITNESSES:

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URIAH L. RIFE, OF NEWPORT, RHODE ISLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 612,676, dated October 18, 1898.

Application filed July 29, 1898. Serial No. 687,182. (No model.)

To all whom it may concern:

Be it known that I, URIAH L. RIFE, of Newport, in the county of Newport and State of Rhode Island, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

This invention relates to improvements in stoppers for bottles, particularly bottles containing liquids naturally or artificially effervescent, such as champagne, mineral waters, or the like; and the object of the invention is to provide a stopper of simple construction that may be easily inserted in the neck of a bottle and which after being inserted cannot be forced out by gas-pressure in the bottle.

I will describe a bottle-stopper embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the stopper arranged in the neck of a bottle, which is shown in section. Fig. 2 is a sectional elevation. Fig. 3 is a side elevation of an expanding sleeve employed. Fig. 4 is an end view thereof, and Fig. 5 shows a stopper of modified construction.

Referring first to the example of my improvement shown in Figs. 1 and 2, 1 designates a plug, of wood or other suitable material, adapted to engage upon the upper end of the bottle-neck, as shown, and having a downwardly-extended lug 2, to which a metal expanding sleeve 3 is attached. This metal expanding sleeve has a series of longitudinal slits formed in it to provide fingers 4, that may be expanded outward.

Surrounding the sleeve 3 and extending the entire length thereof is a bushing 5, of rubber or similar flexible material. Movable through the plug 1 is a stem 6, to the upper outer end of which is attached a head 7, and between this head 7 and the plug 1 is a spring 8. The stem 6 extends down through the sleeve 3, and at its lower end it is enlarged or provided with a bulb 9.

In use, when inserting the stopper, the stem

6 is to be forced downward to free the bulb 9 from the ends of the fingers 4 of the sleeves, allowing said fingers to spring inward, and consequently allowing the bushing 5 to spring inward, making it substantially cylindrical throughout its entire length. As the bushing-diameter is smaller than the interior of the neck of the bottle, the stopper may be easily placed in the neck. When the stopper is within the neck of the bottle, the stem 6 is to be released, when the spring 8 will force it upward, drawing the bulb 9 into the sleeve, which will force the fingers of the sleeve and the lower end of the bushing outward to engage said bushing tightly with the interior of the neck of the bottle, as plainly indicated in Fig. 2. It is obvious that any gas-pressure in the bottle will have a tendency to force the bulb more tightly into the sleeve. To remove the stopper, it is only necessary to press downward on the stem 6 to allow the sleeve and bushing to contract. Then by taking hold of the upper portion of the plug 1 the stopper may be withdrawn.

In the example shown in Fig. 5 I have shown the stem as made in the form of a tube 10, and the head 11 consists of a faucet. This form of stopper is particularly adapted for use in champagne-bottles. The metal sleeve 3 will prevent any buckling or distortion of the rubber bushing 5.

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

1. A bottle-stopper, comprising a plug adapted to engage with the end of a bottle-neck, a metal sleeve depending from said plug, the said sleeve having a number of longitudinal slits providing fingers, a bushing of yielding material surrounding the sleeve, the said sleeve being extended the entire length of the bushing, so as to prevent buckling thereof, a stem movable through the plug and having a bulb at its lower end for expanding the sleeve, a head on its outer end, and a spring between said head and the plug, substantially as specified.

2. A bottle-stopper, comprising a plug adapted to engage with the end of a bottle-

neck, a longitudinally-slitted sleeve supported on said plug, a bushing of yielding material on the sleeve, the said sleeve being extended the entire length of the bushing so as to prevent buckling thereof, a tubular stem movable through the plug and having an enlarged lower end for expanding the sleeve, a faucet-

head on said stem, and a spring arranged between the head and the plug, substantially as specified.

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Witnesses:

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