No. 721,330. PATENTED FEB. 24, 1903.

J. L. RUGER.

BOTTLE STOPPER.

APPLICATION FILED MAR. 26, 1902.

NO MODEL.

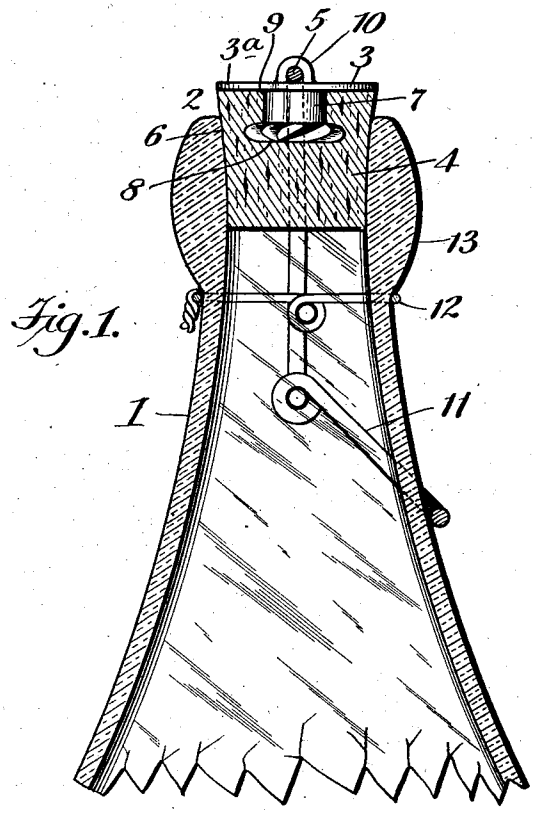

Fig. 1.

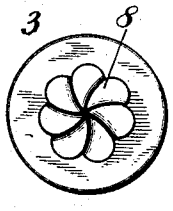

Fig. 2.

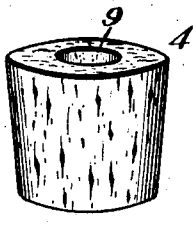

Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN L. RUGER, OF BROOKLYN, NEW YORK.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 721,330, dated February 24, 1903.

Application filed March 26, 1902. Serial No. 100,042. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. RUGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention relates to bottle-stoppers, and has for its object to provide a device of the class described which will possess points of advantage in convenience, simplicity, inexpensiveness, effectiveness, and general efficiency.

Another object of the invention is to provide a device of the class described which will neither be injured by the contents of the bottle, whatever they may be, nor injure such contents.

In the drawings, Figure 1 is a longitudinal vertical sectional view of a bottle-neck and stopper embodying my improvements. Fig. 2 is an inverted plan view of the top of the stopper. Fig. 3 is a detail perspective view of the body portion of the stopper.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates the neck of the bottle, of ordinary construction, and 2 the stopper, which consists of two parts—a top part 3 and a body portion 4. In the form shown the portion 3 consists of a metal disk 3^a, provided at the top with means of attaching it to a yoke 5, by means of which it may be pressed down on the mouth 6 of the bottle 1. Projecting from the lower part of such top portion 3 is a shank 7, which terminates in a flanged head 8, which head is provided at the lower portion with flanges arranged similarly to the blades of a screw-propeller. The body portion 4 in the form shown consists, preferably, of cork, which may be suitably tapered to fit the mouth 6 of the bottle 1 and is provided in its top with a recess 9, adapted to receive the head 8, the flanges of which are of greater diameter or area than the shank 7 and serve to retain the cork upon the shank 7 against the lower surface of the disk 3^a. The spirally-flanged head 8, coacting with the yielding cork, permits insertion in the recess 9. The organization of the parts is such that when in operative position the disk 3^a does not come in contact with any portion of the contents of the bottle. The means of attaching the disk 3^a to the yoke 5 in the form shown consists of a perforated lug 10, secured to the disk 3^a in any suitable manner, herein shown as made integral therewith. The yoke 5 in the form shown herein is U-shaped and has its lower ends secured to a spring member 11, which draws it tightly into the mouth 6 of the bottle 1.

The spring member in the form shown herein consists of a collar 12, which is fastened around the bottle-neck shown just below an enlargement 13, which is formed about the mouth edge of the bottle-neck 1. Pivotally connected with the collar 12 is a U-shaped member connected at a point intermediate its ends to the lower ends of the yoke 5. The organization of the parts is such as to draw the yoke down against the mouth 6 of the bottle-neck 1 when in operative position.

The operation and advantages of my improved bottle-stopper will be readily understood and appreciated. The top and body portion are securely held together by the insertion of the flanged head 8 into the recess 9, and the yoke 5 serves to draw the stopper firmly into the mouth 6 of the bottle-neck 1, the cork body portion 4 being in contact with the inner walls of the mouth 6, forming a secure closure of such mouth 6. The spirally-arranged blades going to make up the enlarged head 8 are easily screwed into the smaller recess in the cork without injuring the latter, by reason of their being of just sufficient thickness to act as cutters to some slight extent, while their contour is such that they do not remove but only indent the portions of cork against which they act during insertion, and of course this is a sufficiently elastic material to spring back and resume normal position directly the blades have passed into the recess 9, when also all undue strain is removed.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and

scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claim.

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

The bottle-stopper herein described, consisting, essentially, of the following instrumentalities, viz: a cork body portion having a recess at and extending inward from the top toward the core, a top plate adapted to bear against the top of the cork and having a depending shank terminating in spirally-shaped flanges of greater diameter or area than the shank proper, which shank and flanges are inserted so as to bind in the recess in the cork, and said top plate having an upwardly-projecting lug, a yoke engaging said lug, and a spring member engaging the yoke and adapted to be folded against the exterior of the neck of the bottle to clamp and hold the whole stopper in the mouth thereof, substantially as set forth.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

JOHN L. RUGER.

Witnesses:
HARTWELL P. HEATH,
JOHN M. HOCTOR.