(No Model.)

E. A. PARKER.

BOTTLE STOPPER.

No. 604,259. Patented May 17, 1898.

Fig. 1.

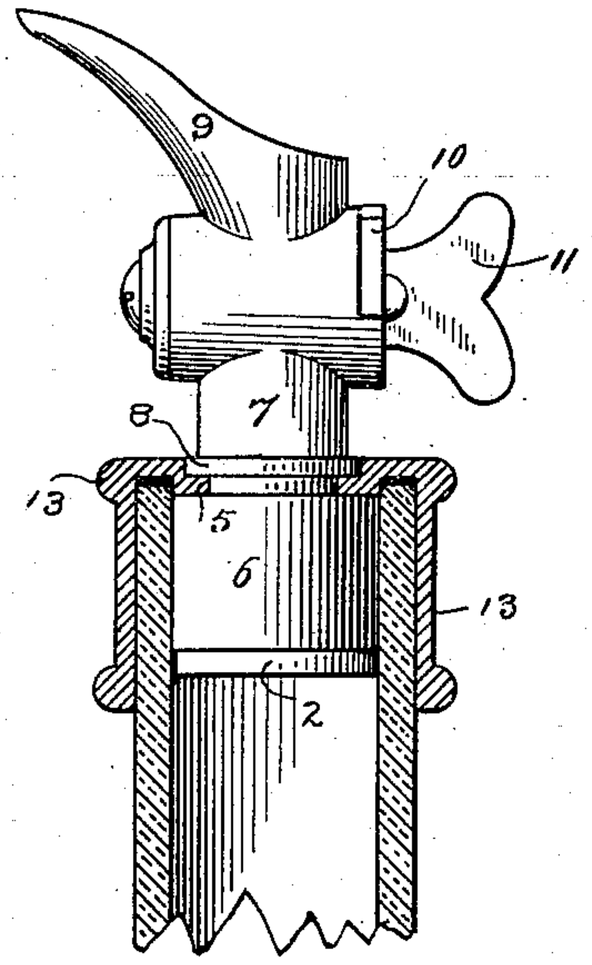


Fig. 2.

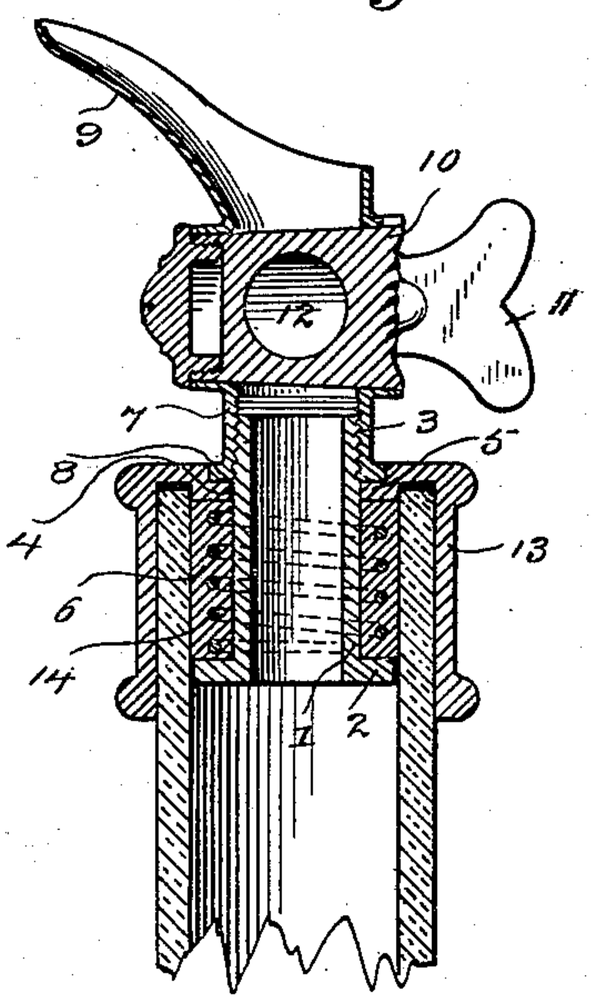


Fig. 3.

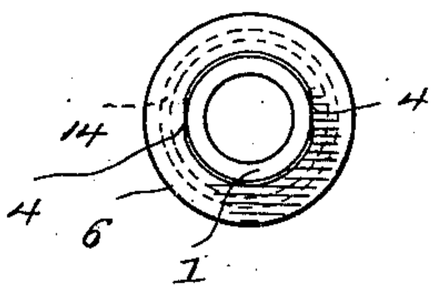
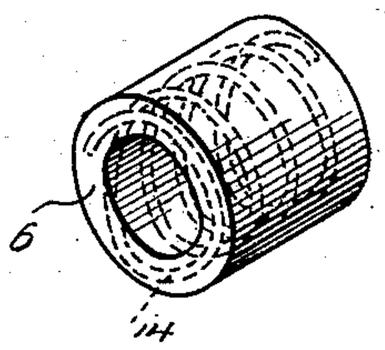


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDMUND A. PARKER, OF MERIDEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO WILLIAM I. HENLEY, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 604,259, dated May 17, 1898.

Application filed June 3, 1897. Serial No. 639,236. (No model.)

To all whom it may concern:

Be it known that I, EDMUND A. PARKER, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to produce a combined stopper and faucet which shall be adapted for general use in connection with bottles from which it is desired to pour a portion only of the contents at a time and which shall be especially adapted for use in connection with effervescing beverages—as, for example, champagne or a carbonated water—it being of course understood that beverages of this class quickly loose the property of effervescing if left open, and, furthermore, that at the table or in the sick-room it is frequently desired to pour a small quantity only of an effervescing beverage and to leave the quality of what remains in the bottle unimpaired.

In order to provide a simple and inexpensive device of this character which may be readily removed from one bottle and placed in another, I have devised the novel bottle-stopper of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to designate the several parts.

Figure 1 is an elevation of my novel bottle-stopper in place in the neck of the bottle, the bottle-neck and upper disk of the stopper being in section; Fig. 2, a similar view, the parts of the stopper itself being in section; Fig. 3, a plan view of the central tube and the flexible plug detached, and Fig. 4 is a perspective of the flexible plug detached.

1 denotes the central tube, which is provided at its lower end with a disk 2. The upper end of this tube is screw-threaded, as at 3, and below the screw-thread is flattened on opposite sides, as at 4, (see Fig. 3,) the purpose of the flattened portions being to prevent upper disk 5 from turning on the tube, this upper disk being made wholly separate from the tube and being slid down to place over the screw-thread. Between disks 2 and 5 is a flexible plug 6, the special construction of which is one of the novel features of my present invention and will presently be described in full. Screw-thread 3 is engaged by a corresponding internal screw-thread formed on the body 7 of a faucet. At the lower end of this body is a flange 8. The special construction of the faucet is not of the essence of my invention. I have shown an ordinary plug-faucet provided with a nozzle 9.

10 denotes the plug of the faucet, which is provided with a thumb-piece 11 for convenience in operation, and with a transverse opening 12, through which fluid passes freely when the plug is turned, so that the opening will register with the central tube, the sides of the plug serving to shut off the flow of liquid and gas when the plug is turned to substantially the position in Figs. 1 and 2. In the present instance I have indicated disk 5 as provided with an ornamental extension or cap 13, which covers the top of the bottle-neck and extends downward over the sides thereof to wholly conceal the flexible plug. This cap gives a very ornamental finish to the stopper and may be made large enough to pass freely over the necks of ordinary sizes of bottles, it not being essential that the cap should fit closely.

In assembling the flexible plug is placed over the central tube, the bottom of the tube resting on disk 2. Upper disk 5 is then placed in position and the stopper completed by the attachment of the body of the faucet to the central tube by means of screw-thread 3, which engages the internal screw-thread in the body. When not in use, the body is not turned down far enough to cause flange 8 to press upon the upper disk. In use the ordinary cork is removed from the bottle and its place is supplied by the flexible plug. As soon as the plug is in position in the neck of the bottle the operator turns the body of the faucet down upon the central tube, causing flange 8 to engage the upper disk and pressing the flexible plug between the two disks and expanding it outward, the upper disk, as already stated, being preferably held against rotation on the tube. This expansion of the flexible plug by compression between the disks causes it to engage the neck of the bottle tightly and ab-

solutely prevents the passage of gas or liquid. It is of course well understood that rubber and other flexible plugs have been used for similar purposes. The objection has been, more especially with relation to rubber plugs, that the plugs in use quickly lost their resiliency. They became hard, or, as it is sometimes said in connection with rubber plugs, they "bloom," and frequently, if allowed to remain long in the bottle, will attach themselves firmly to the neck of the bottle. I have discovered that this objection can be wholly obviated by molding within the plug a coil-spring, which I have indicated by 14. I have found that this spring can be molded within a flexible rubber plug and vulcanized therein without affecting the temper of the spring, and, moreover, that the temper of the spring does not deteriorate in use. When the flexible plug is compressed by turning down body 7 upon screw-thread 3 and the flexible plug is compressed between the upper and lower disks, the coil-spring is compressed and its diameter slightly increased, which expands the rubber against the bottle-neck. The reverse of this takes place when the body 7 is turned backward on the screw-thread. The spring will expand longitudinally, which will reduce its diameter and will reduce the diameter of the plug itself and expand it longitudinally, thus detaching it from the neck of the bottle and making it readily removable.

Having thus described my invention, I claim—

1. In combination a central tube having at its lower end a disk and at its upper end a screw-thread, a disk free to slide on said tube, a plug between said disks and a faucet having a body separate from the central tube and internally threaded to engage the thread on the tube whereby the disks are moved toward each other and the plug is expanded transversely.

2. In combination a central tube having at its lower end a disk and at its upper end flattened portions 4 and a screw-thread, a disk free to slide on said tube and held against rotation by said flattened portions, a plug between said disks and a faucet-body separate from the central tube and internally threaded to engage the thread on the central tube whereby the disks are moved toward each other and the plug is expanded transversely.

In testimony whereof I affix my signature in presence of two witnesses.

EDMUND A. PARKER.

Witnesses:
OSWIN H. D. FOWLER,
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