(No Model.)

O. ZWIETUSCH.

BOTTLE STOPPER.

No. 336,463. Patented Feb. 16, 1886.

Fig. 1.

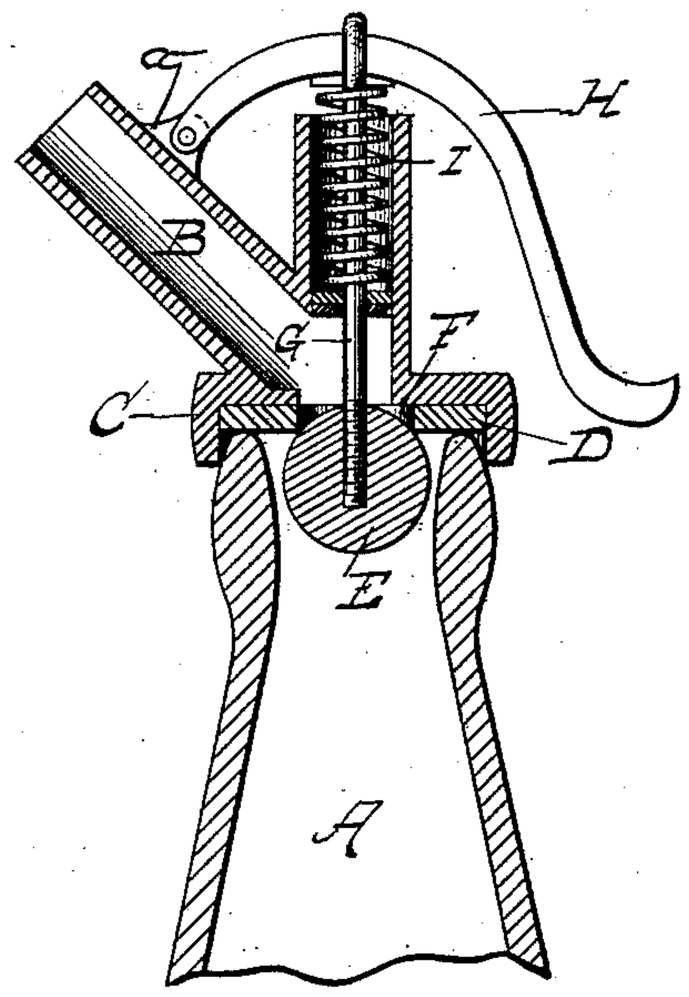


Fig 2.

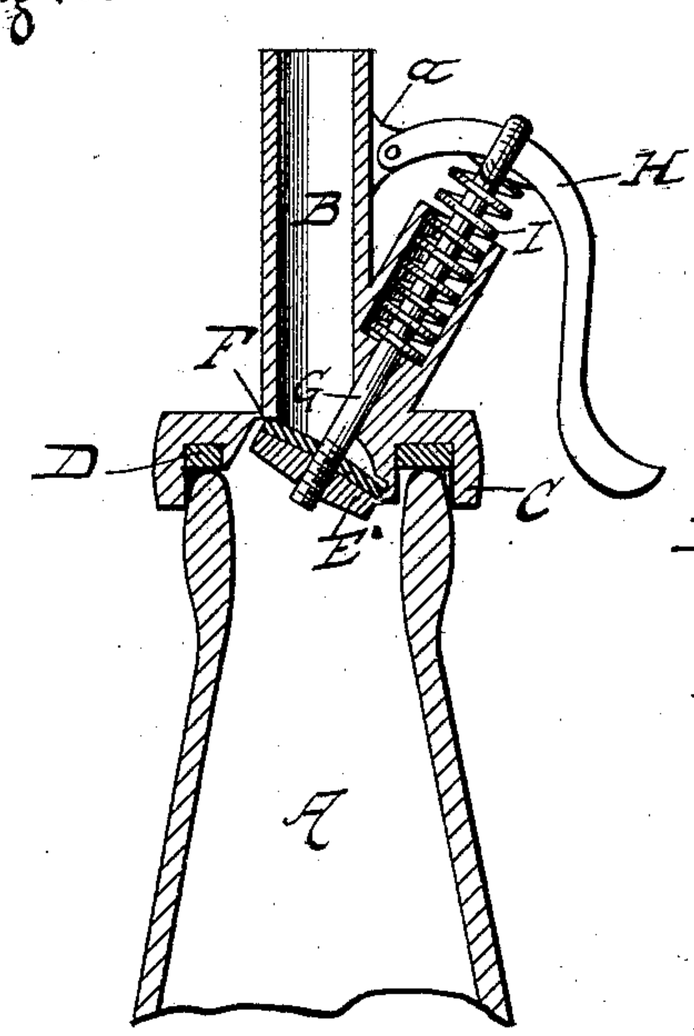
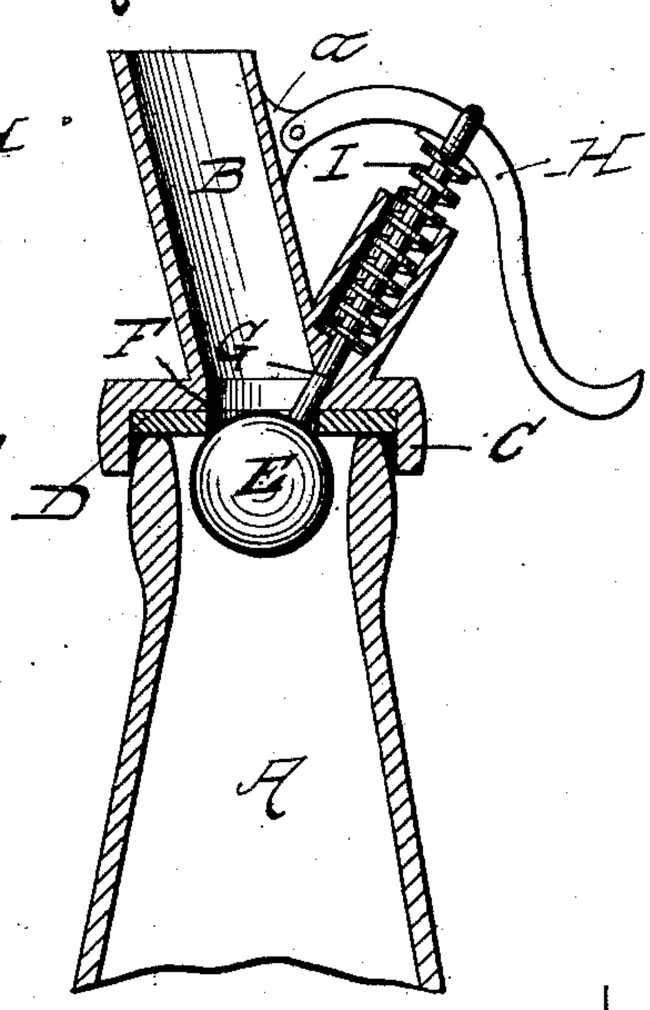


Fig 3



WITNESSES

N. E. Oliphant)

Maurice F. Frear.

INVENTOR

Otto Zwietusch

By Stout & Underwood,

Attys.

UNITED STATES PATENT OFFICE.

OTTO ZWIETUSCH, OF MILWAUKEE, WISCONSIN.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 336,463, dated February 16, 1886.

Application filed February 13, 1884. Serial No. 120,659. (No model.)

To all whom it may concern:

Be it known that I, OTTO ZWIETUSCH, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certian new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to that class of stoppers especially adapted to bottles containing effervescent waters or other liquids; and it consists in certain peculiarities of construction, as will be hereinafter described with reference to the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of my invention, and Figs. 2 and 3 similar views showing modified forms.

A is the head of the bottle; B, the draft-tube; C, the supporting-flange, and D the rubber washer placed between said flange C and the bottle-head A, which washer serves both as a packing between the bottle-head A and the flange C, and as a seat, F, for the stopper or valve E, the opening in said washer D corresponding in size to that of the lower end of tube B, and being somewhat smaller than the diameter of stopper or valve E.

G is the valve-stem, which enters the tube B above the flange C, and extends up through and out of a casing formed integral with the draft-tube, and is directly connected to a thumb-lever, H, fulcrumed to a projection, *a*, upon said draft-tube. The casing formed integral with the draft-tube serves to contain a spring, I, the upper end of which impinges directly upon the thumb-lever to automatically close and keep closed the stopper or valve E when pressure is removed from said lever.

The device in Fig. 2 differs from that in Fig. 1 in that the nozzle B is perpendicular, that the valve-seat F is inclined, and the stopper E has a rubber washer, and in that the washer D serves only as a packing between flange C and bottle-head A.

Fig. 3 differs from Fig. 1 only in that the tube and the stem are both inclined.

The desirable features in draft-nozzles of this character are an opening nearly as large as the neck of the bottle itself, so as to admit of a ready filling and emptying of the bottle, also a safe and automatic means of closing said bottle.

The device is constructed of any suitable material, and the ball is preferably made of glass, with the stem inserted by any suitable means.

What I claim as new, and desire to secure by Letters Patent, is—

The spring-valve bottle-stopper herein described, consisting of an integrally-formed draft-tube having an internal diameter equal to that of the valve-opening, spring-casing, and supporting-flange, a valve provided with a stem, a thumb-lever fulcrumed to the draft-tube and directly connected to the valve-stem, a spring located, as shown, with its upper end impinging against the thumb-lever, and a washer or packing provided with an opening forming a seat for the valve, all arranged and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

OTTO ZWIETUSCH.

Witnesses:

S. S. STOUT,

H. G. UNDERWOOD.