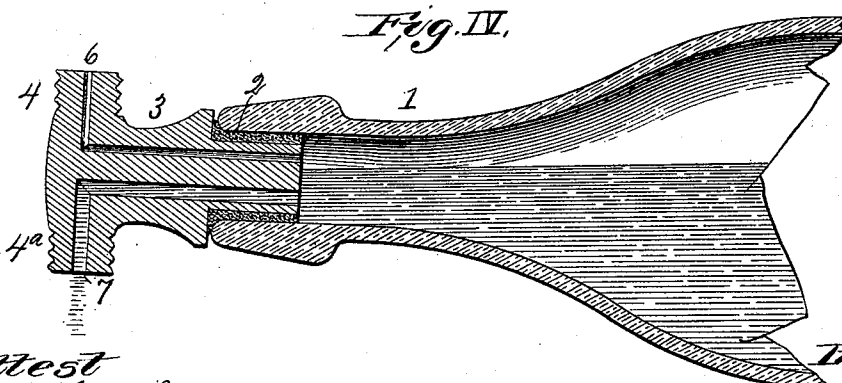
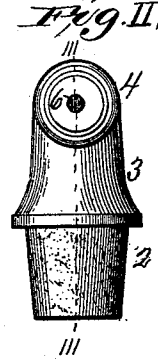
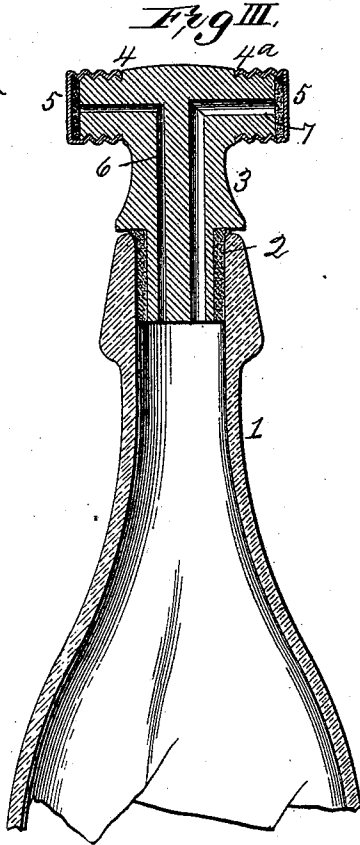
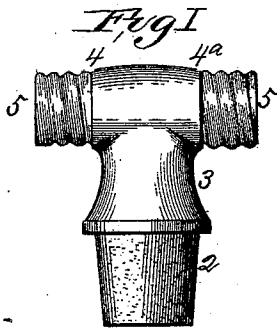


(No Model.)

F. W. PALMER.
BOTTLE STOPPER.

No. 523,918.

Patented July 31, 1894.



Attest
A. M. Eberste
C. S. Edwards.

Inventor
Francis W. Palmer.
By Knight Bros. Attys

UNITED STATES PATENT OFFICE.

FRANCIS W. PALMER, OF ST. LOUIS, MISSOURI.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 523,918, dated July 31, 1894.

Application filed March 15, 1894. Serial No. 503,803. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS W. PALMER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Bottle-Stoppers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in permanent stoppers for bottles or other like vessels, and consists in providing a vent and pour-out attachment so that liquids may be poured or withdrawn from the bottle or vessel without the removal of the stopper therefrom, and in utilizing the same stopper for transportation as well as for permanent use.

My invention consists in features of novelty hereinafter fully described and pointed out in the claim.

Figure I is an elevation of my improved stopper. Fig. II is an end elevation of the same from which the cap is removed. Fig. III is a vertical section taken on line III—III, Fig. II, and shows the stopper applied to a bottle. Fig. IV is a similar view with the caps removed and the bottle tipped over into position for pouring the liquid therefrom.

Referring to the drawings, 1 represents a portion of an ordinary bottle and 2 a bushing composed of cork or other suitable material into which the reduced portion of the body of the stopper 3 is inserted.

4 and 4^a are projections formed on the upper end of the body 3, which are provided on their outer ends with external screw threads, adapted to receive screw threaded caps 5, that during transportation, close the vent orifice 6, which extends down into the bottle, and the pour-out spout orifice 7, which also extends into the bottle.

As will be readily seen, when the caps are removed and the bottle tipped over, as shown in Fig. IV, the air will enter through the vent 6 and thus prevent suction or impediment to the continuous flow of the liquid through the pour-out 7.

I prefer to make my improved stopper of wood and cork, but it is quite obvious that other suitable material may be employed but I prefer to use such material as will not be affected by acids or alkalies.

I claim as my invention—

A stopper comprising a body, lateral projections formed on the upper end of the body, separate and independent vent and pour-off orifices of equal length extending through the body and through the projections, and caps removably located on the projections for closing the outer ends of orifices; substantially as described.

FRANCIS W. PALMER.

In presence of—

CLARA G. EDWARDS,
M. M. KINGSLAND.