

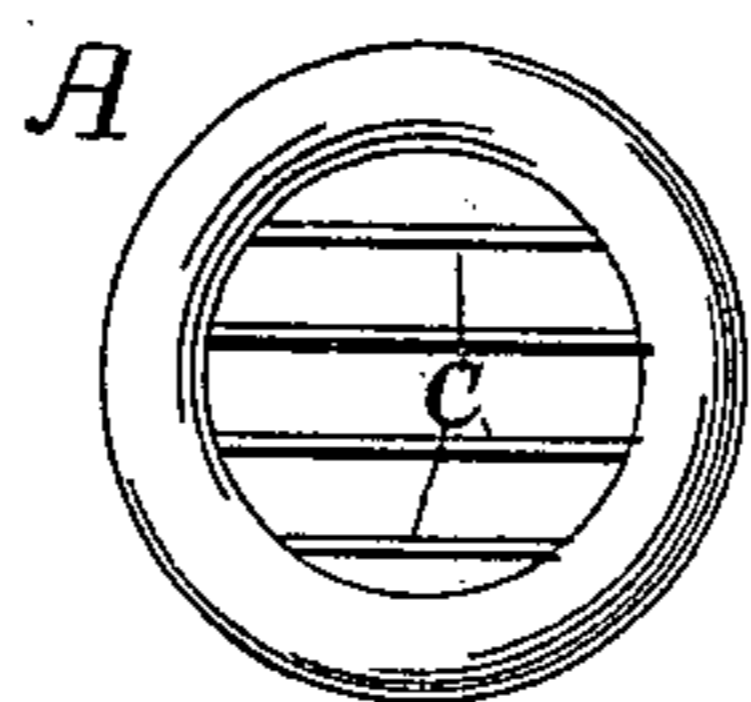
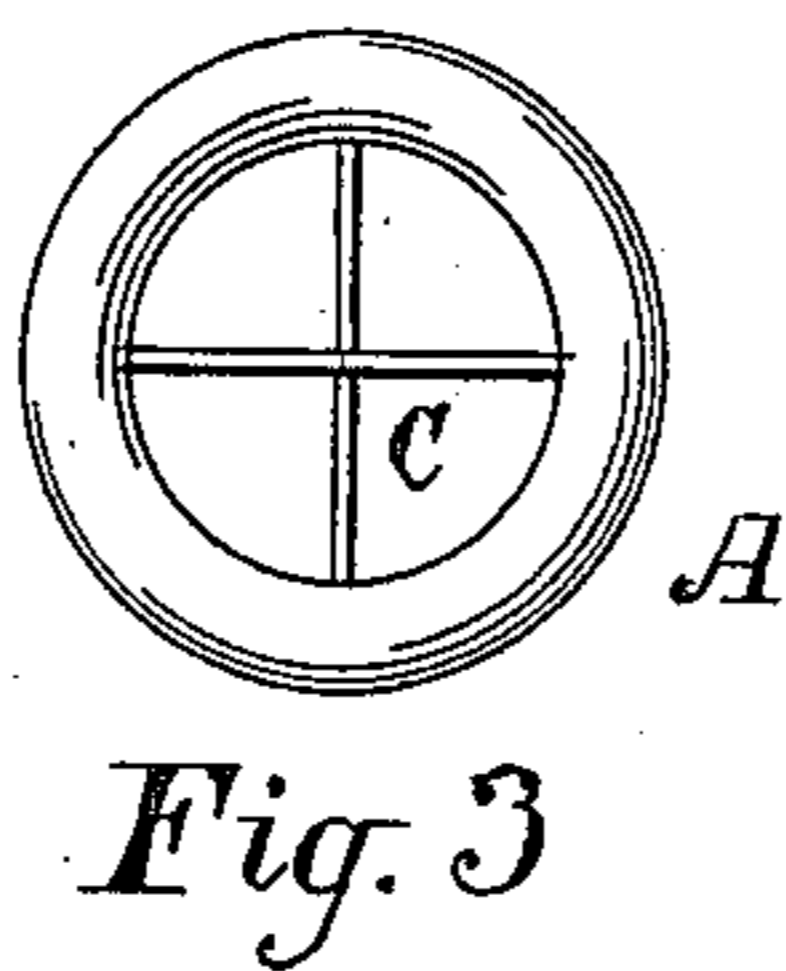
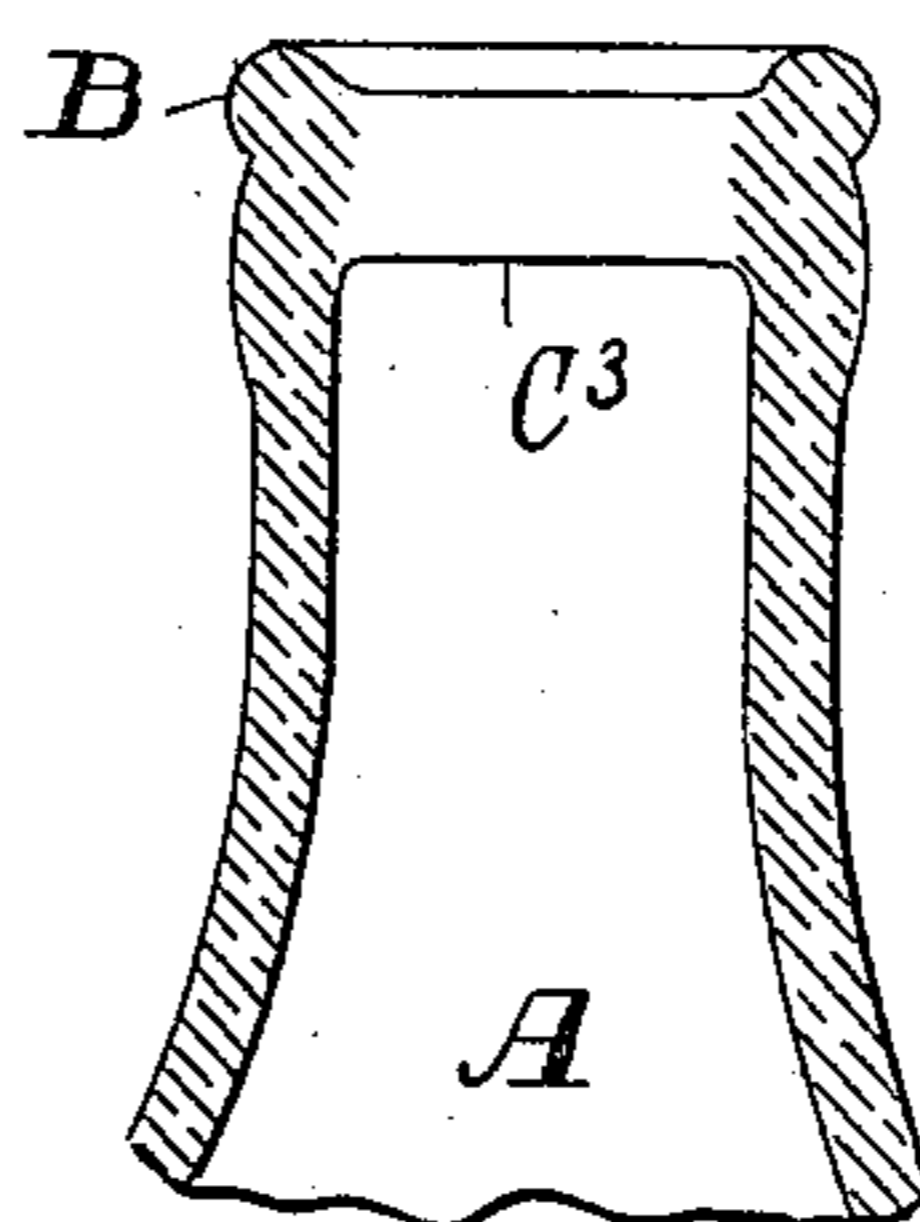
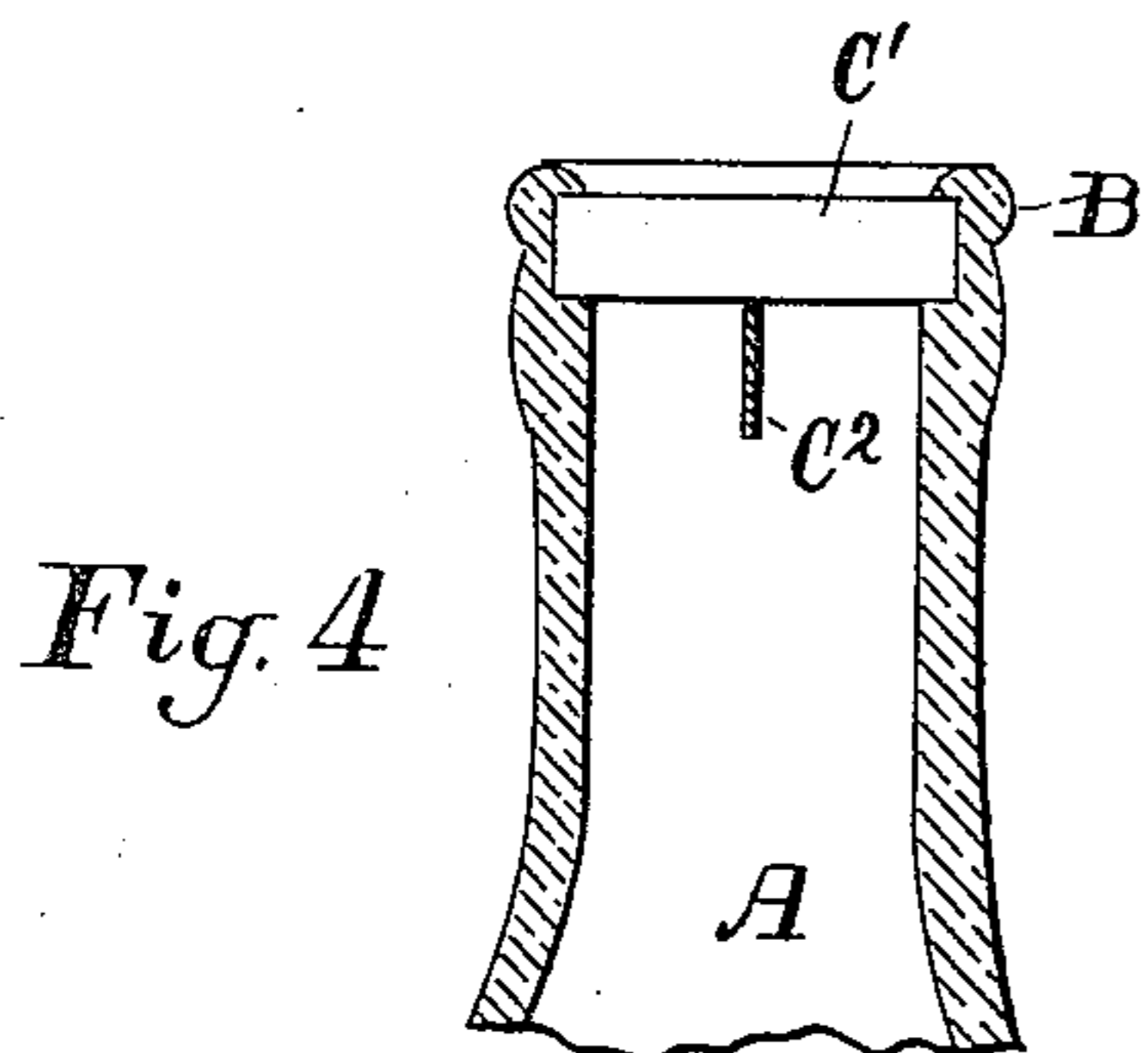
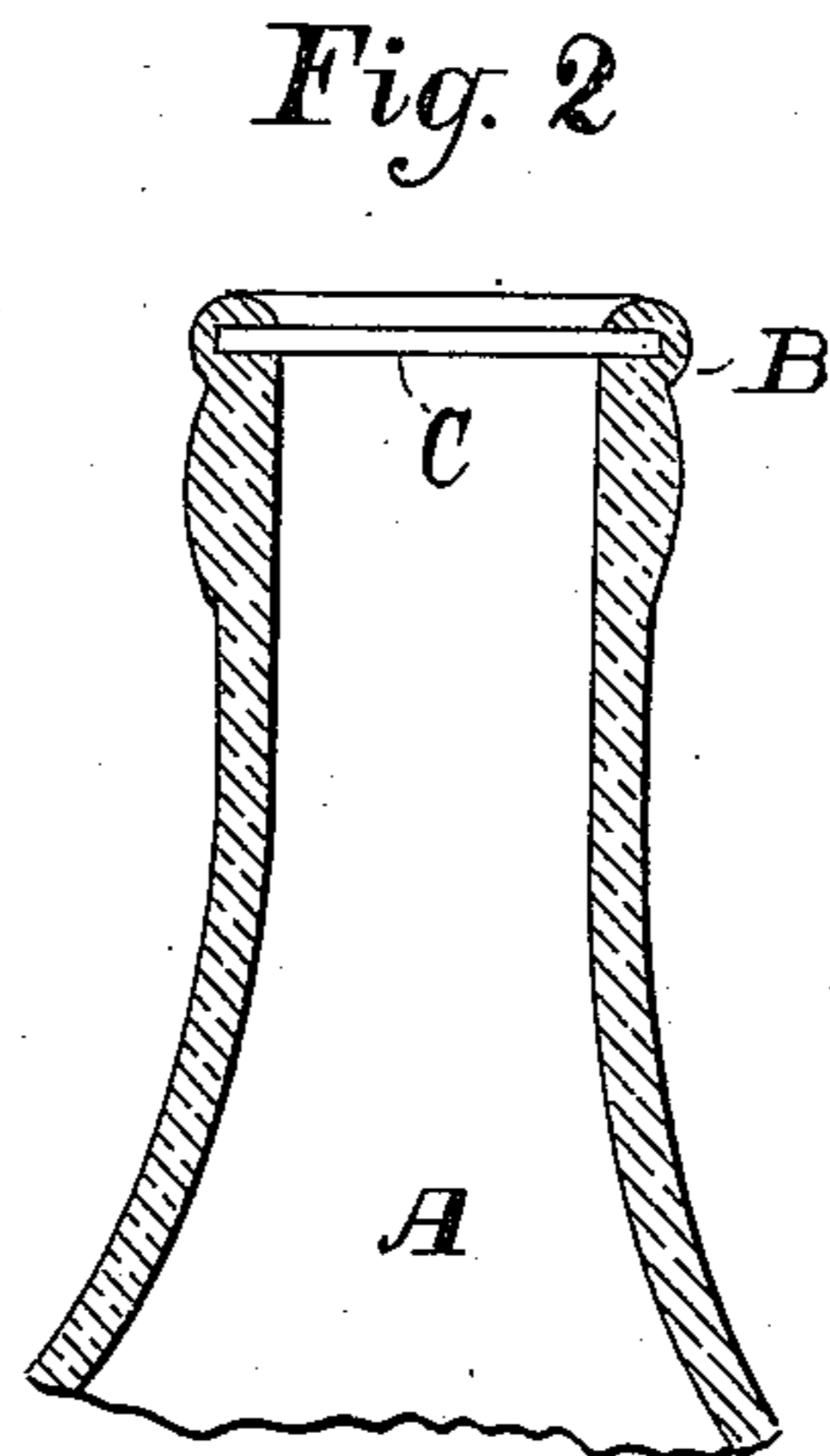
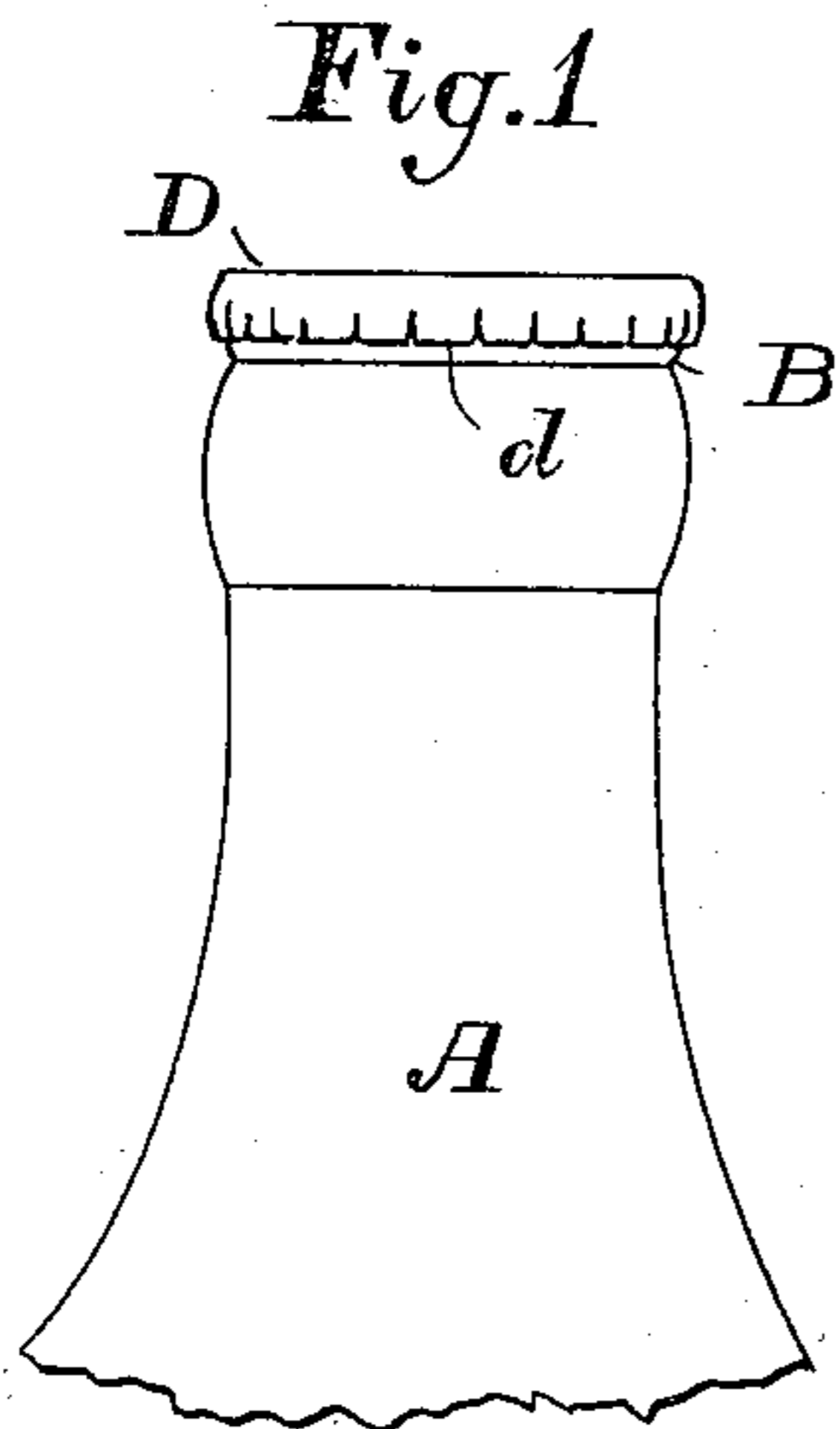
No. 619,435.

Patented Feb. 14, 1899.

E. B. PHILLIPS.
BOTTLE.

(Application filed Nov. 12, 1898.)

(No Model.)



Attest;
F. E. Galloway

J. H. Bratney

Inventor,

Eben B. Phillips;

By A. B. Upham.
His Attorney.

UNITED STATES PATENT OFFICE.

EBEN B. PHILLIPS, OF SWAMPSCOTT, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HENRY FISHER, OF SALEM, MASSACHUSETTS.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 619,435, dated February 14, 1899.

Application filed November 12, 1898. Serial No. 696,242. (No model.)

To all whom it may concern:

Be it known that I, EBEN B. PHILLIPS, a citizen of the United States, residing at Swampscott, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Bottles, of which the following is a full, clear, and exact description.

In the manufacture and sale of ginger-ale and other liquids which are delivered to the users thereof in bottles designed to be returned, and therefore not paid for by the receivers, such dealers find themselves subject to a considerable loss in failure to recover a large proportion of such bottles. One reason for such failure to return bottles I have found to be due to the fact that these articles are put into use while awaiting such reshipment, and consequently fail to be on hand when required. For instance, if in a shop where a quantity of bottles is accumulating for return to the bottler a customer calls for a liquid for which there happens to be no other receptacle handy one of these bottles is taken, filled, a cork or plug of paper crowded in for a stopper, and the whole handed to the purchaser. Nine times out of ten the bottle fails of return and the manufacturer has to stand the loss. The most popular of such bottles now on the market is one in which what is termed the "crown stopper" is employed. This is one in which a shallow tin cap has its edges crimped about a suitable flange on the exterior of the bottle-mouth. It is to such bottles as these, and others in which the stopper is adapted to be secured to the outside of the neck or mouth of the bottle, that my invention is designed to be applied, and its object is to prevent the objectionable second use thereof above recited.

Referring to the drawings forming part of this specification, Figure 1 is a side elevation of the neck of a bottle having applied thereto the form of stopper above alluded to. Fig. 2 is a vertical central section of the neck of my improved bottle. Fig. 3 is a plan view of the mouth thereof; Figs. 4 and 5, central vertical sections of a bottle having modified forms of my invention applied thereto, and Fig. 6 a plan view of another modification.

Referring to Fig. 1, A indicates the upper part or neck of a bottle, B the flanged mouth

thereof, and D the crown stopper, held by the engagement of its crimped edges *d* with said flange B. As is evident, this form of stopper is applied to the exterior of the bottle-mouth. Consequently when I form within the said mouth a barrier to prevent the insertion of a cork it does not in any way interfere with such stopper. Consequently I have experimented considerably along the line of devices which can be permanently introduced within the bottle-mouth and while effectually preventing the insertion of a cork or other plug will not in the least interfere with the passage of the bottle's contents. The device which I have finally invented comprises one or more diametrically-located wires or rods C, inserted into the glass while heated. These rods are preferably formed of hardened steel and may be simple steel wire, as shown in Fig. 2, or they may be thin steel ribbon C', as indicated in Fig. 4. In this latter case the ribbon-rod will be set into the glass in such a manner as to interfere as little as possible with the flow of the liquid, as indicated by C² in Fig. 4. These rods may be two or more in number, extending parallel across the bottle-mouth, as in Fig. 5, or crossing each other, as in Fig. 3; but however arranged it is clear that they will effectually prevent the undesired introduction of a cork or plug. Neither can they be broken out without fracturing and destroying the bottle itself, while being made of hardened steel prevents their being filed out.

I am aware that prior to my invention the attempt has been made to make a bottle incapable of such unwarranted use and that such construction consisted in forming the bottle-mouth with several inwardly-projecting spurs formed of glass integral with the bottle. These spurs can, however, be easily broken away and do not at their best wholly prevent the insertion of a paper plug or similar loosely-composed stopper. With my diametrical rods the bottle-mouth is so cut up into a plurality of separate openings that it is impossible to force therein a single wad and it will not pay the shopkeeper to take the time to make and press into such openings as many wads as there are openings. Hence he will allow these bottles to accumulate unmo-

lest and will seek other means for the reception of the purchased liquids.

In Fig. 5 I illustrate a construction in which the rod C³ is formed integral with the bottle, being made somewhat thin, but vertically extended in order to strengthen it.

What I claim as my invention, and desire to secure by Letters Patent, is as follows, to wit:

10 1. The combination with a bottle in which the stopper is adapted to be secured thereto by engagement with the extreme end of the neck thereof, of a rod extending diametrically across the neck of the bottle too near its mouth
15 for the insertion of a cork or plug therein, substantially as and for the purpose set forth.

20 2. The combination with a bottle in which the stopper is adapted to be secured thereto by engagement with the extreme end of the neck thereof, of the metal rod inserted in the material of which the bottle is composed and

extending diametrically across the neck of the bottle too near its mouth for the insertion of a cork or plug, substantially as and for the purpose set forth.

25 3. The combination with a bottle in which the stopper is adapted to be secured thereto by engagement with the extreme end of the neck thereof, of the hardened-steel rod or rods inserted in the material of which the bottle is composed and extending across the neck of the bottle too near its mouth for the insertion of a cork or plug, substantially as and for the purpose set forth. 30

In testimony that I claim the foregoing invention I have hereunto set my hand this 10th day of November, 1898. 35

EBEN B. PHILLIPS.

Witnesses:

A. B. UPHAM,
LENA PHILLIPS.