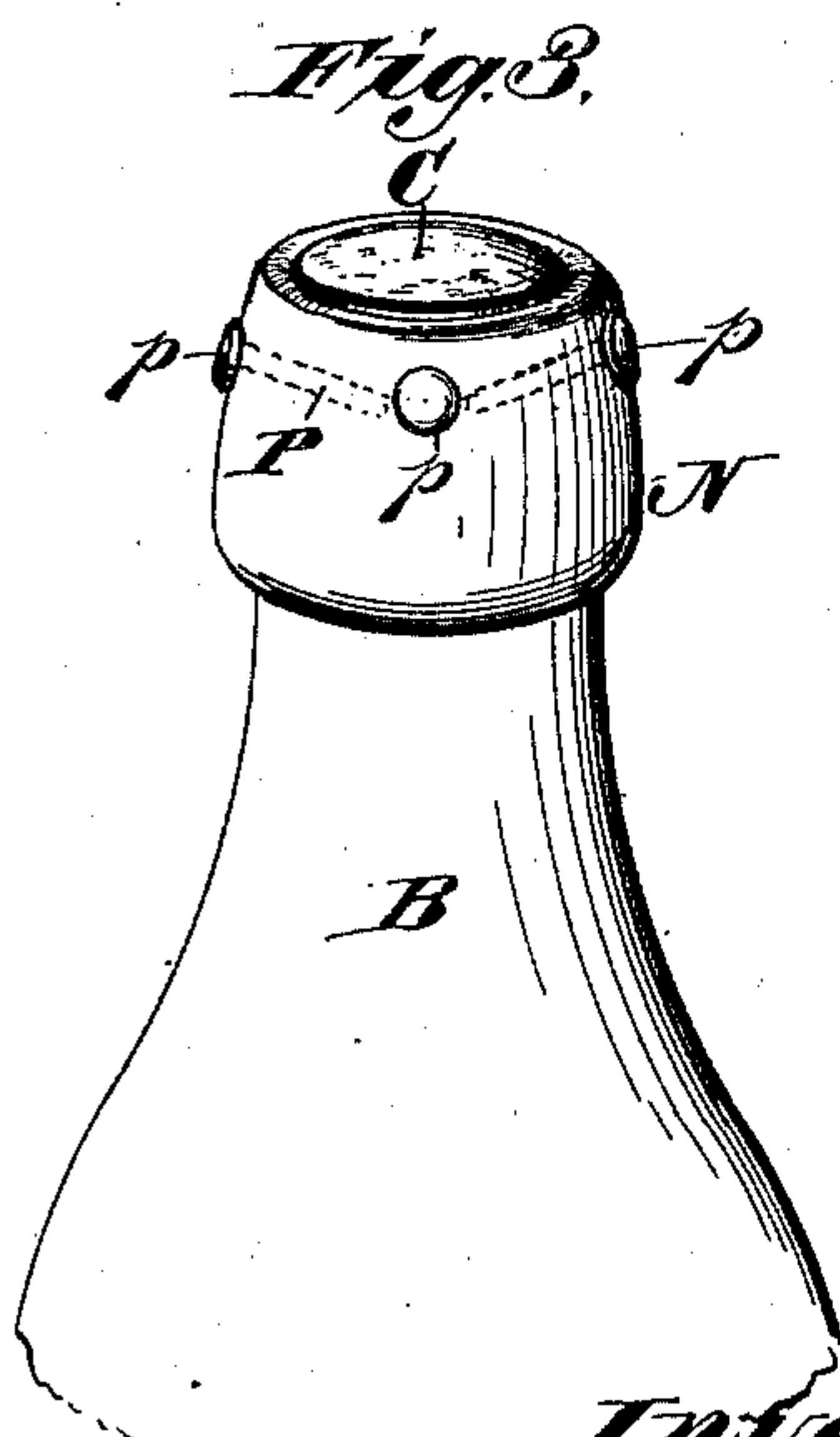
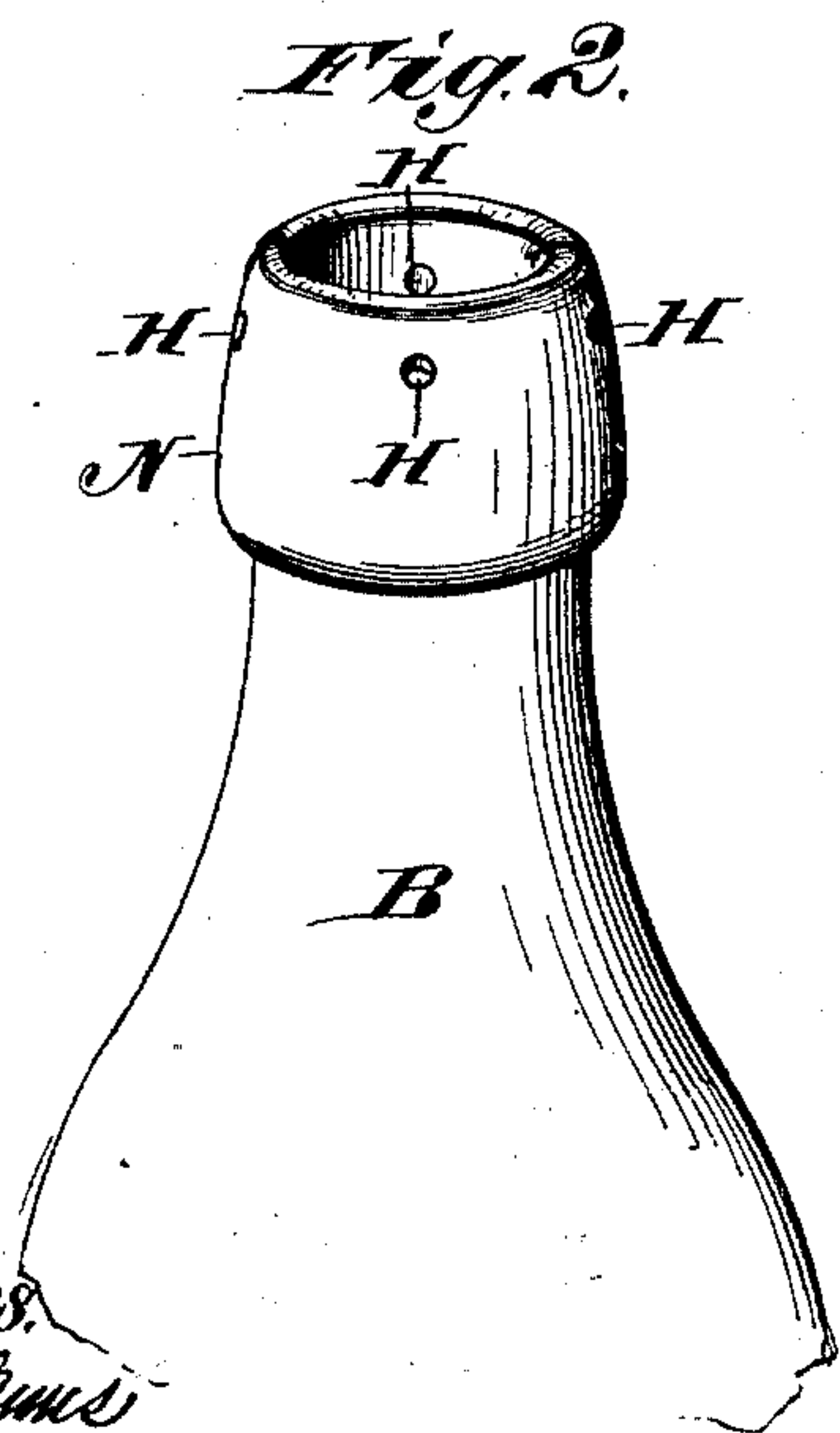
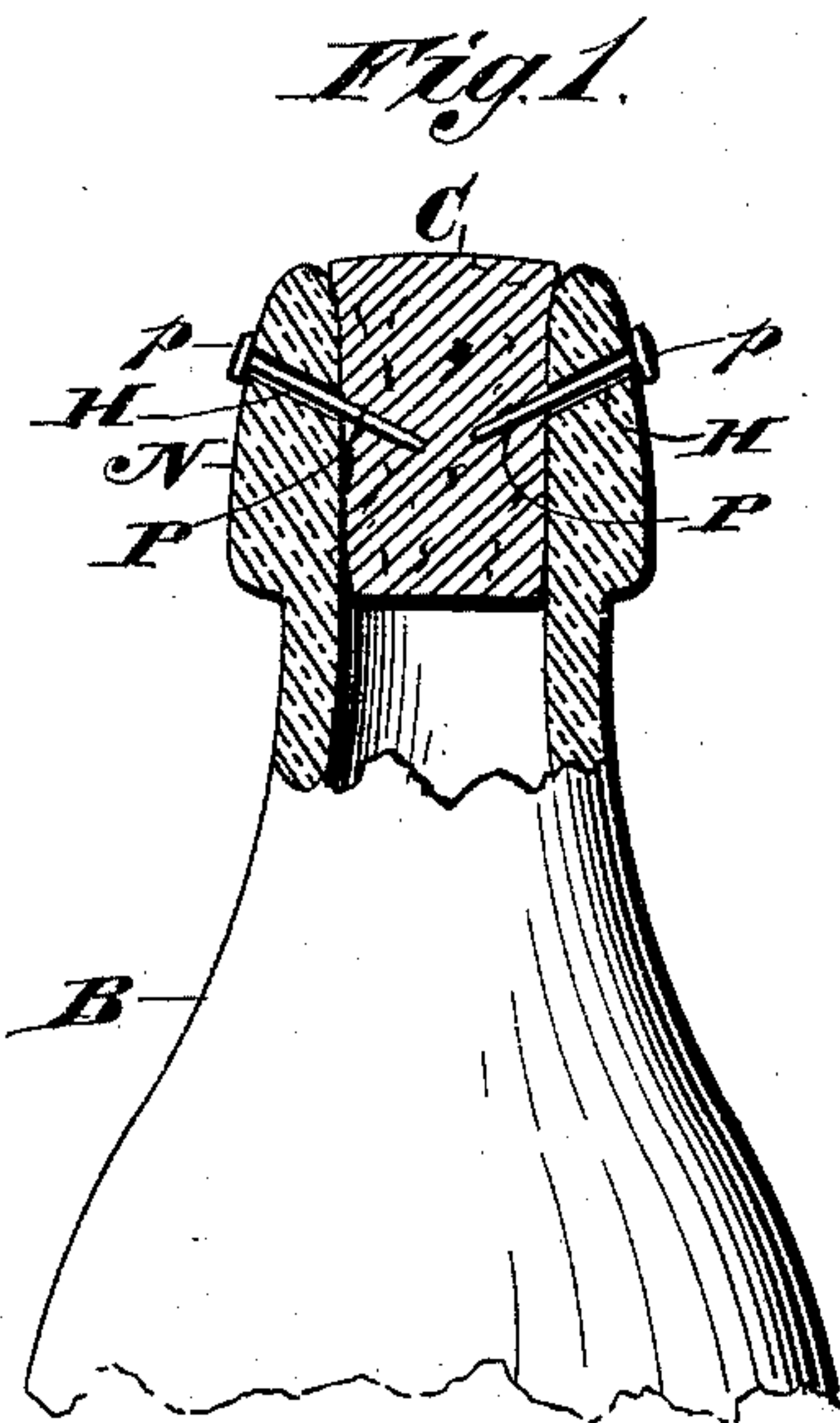


(No Model.)

J. S. BERGER.  
STOPPER FASTENER FOR BOTTLES.

No. 442,940.

Patented Dec. 16, 1890.



Witnesses.  
J. S. Berger  
J. S. Berger

Inventor:  
Jacob S. Berger  
By William R. Baird,  
Att'y

# UNITED STATES PATENT OFFICE,

JACOB S. BERGER, OF BROOKLYN, NEW YORK.

## STOPPER-FASTENER FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 442,940, dated December 16, 1890.

Application filed August 21, 1890. Serial No. 362,581. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB S. BERGER, a citizen of the United States, residing at Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Bottles; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to bottles and similar vessels provided with a head adapted to receive a cork or stopper which closes the bottle; and its novelty consists in improved means employed to retain the cork in place, as hereinafter specifically described and claimed.

Figure 1 is a sectional view of a portion of a bottle closed with a cork and secured in place by my improved device. Fig. 2 is a perspective of an empty bottle adapted to receive the cork, and Fig. 3 is a perspective view of the same with the cork and pins in place.

In the drawings, B is a bottle provided with a head N. This head near its top is provided with two or more apertures H, which are cast or blown in the bottle in the course of manufacture or afterward drilled or bored therein.

C is the cork which should fill the interior of the head of the bottle, and which is forced into position in the usual manner.

P are pins or tacks provided with heads p. These are made of such length that when forced diagonally downward through apertures H and into the cork C they will not extend beyond the axis of the latter.

I am aware that pins have been passed horizontally through the head of a bottle and through a cork therein. I also know that it has been proposed to pass a pin diagonally downward through the head and through or beyond the axis of the cork. Further, I am aware, as illustrated in the patent of Bunting, No. 402,297, dated April 30, 1889, that a cover or cap for a bottle has been provided with a

stopper, the said stopper being secured in said cap by means of pins or tacks extending diagonally into the cap and not beyond the axis of the stopper. In none of these devices, however, does the pressure on the interior of the bottle compress the cork in all directions against the sides of the bottle or object in which it is placed, and thus form a more nearly perfect barrier to the escape of gas from the bottle. In the case of Bunting's stopper there is no more tendency to press the cork against the side of the bottle than is present in the ordinary stopper without auxiliary fastening devices, because his fastening devices when in place are movable with respect to the bottle. In order to secure the expansion of the cork within the neck of the bottle by the internal pressure upon the cork, there must not only be fastening devices not extending beyond the axis of the cork, but these fastening devices must be connected rigidly to the bottle and not to something independent of and movable with respect to the bottle. In Bunting's device the cap which contains the stopper-fastening devices is not a part of or fixed to the bottle, and hence when the cork is pressed upward the cap moves with it and the effect of expanding the cork by internal pressure is absent.

What I claim as new is—

In combination with a bottle adapted to contain aerated beverages and the like, the head of which bottle forms a fixed part thereof and is pierced with holes extending diagonally downward toward the axis of the bottle, an expansible stopper in the head of said bottle, and pins or tacks driven diagonally downward through said holes and into the cork, but not beyond the axis of the latter, whereby pressure within the bottle may expand the cork in all directions against the neck of the bottle, substantially as described.

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

JACOB S. BERGER.

Witnesses:

WM. RAIMOND BAIRD,  
JAS. P. DOWNS.