

(No Model.)

F. P. MORHOUS.

BOTTLE STOPPER.

No. 377,042.

Patented Jan. 31, 1888.

Fig. 1.

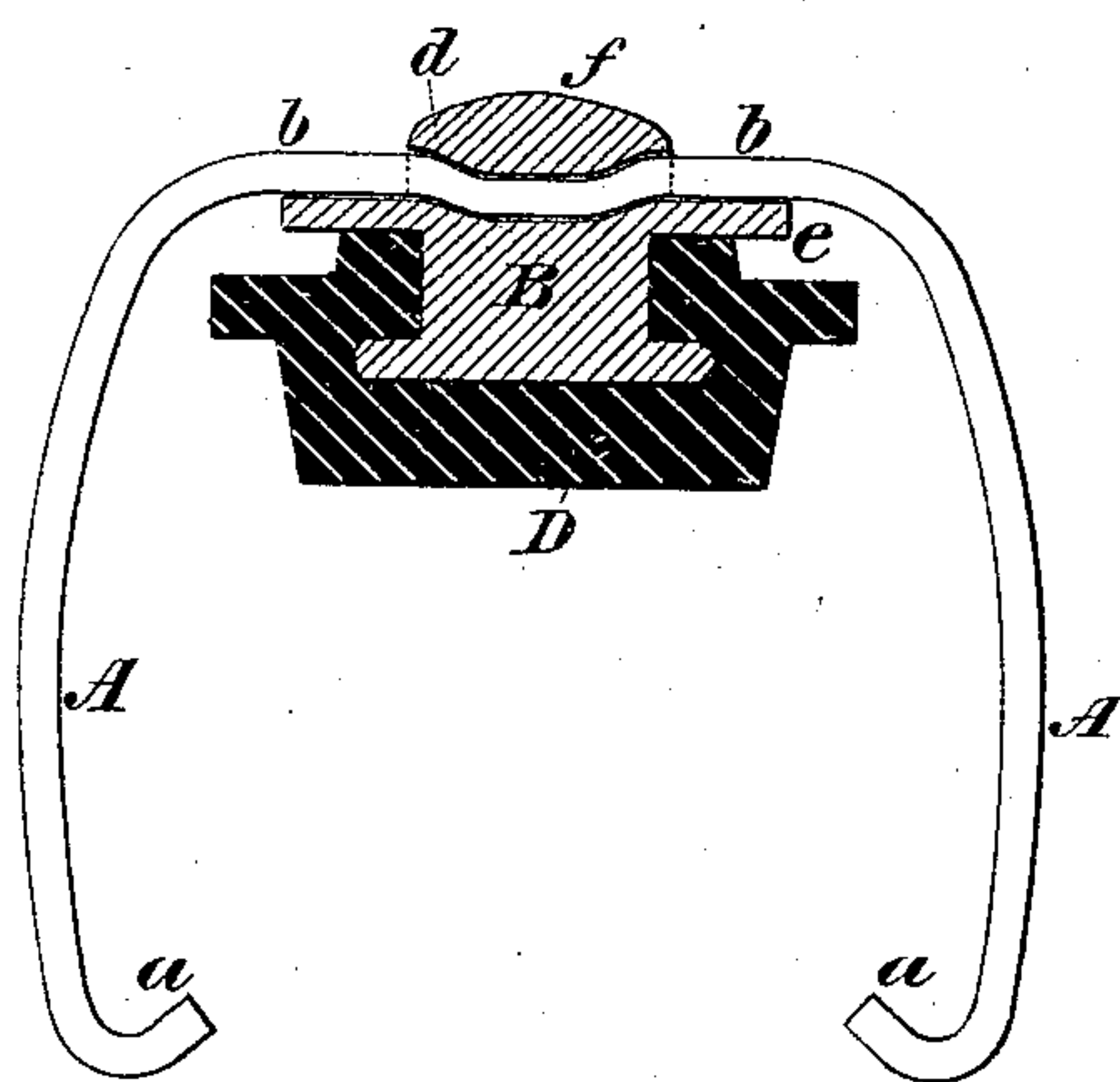


Fig. 2.

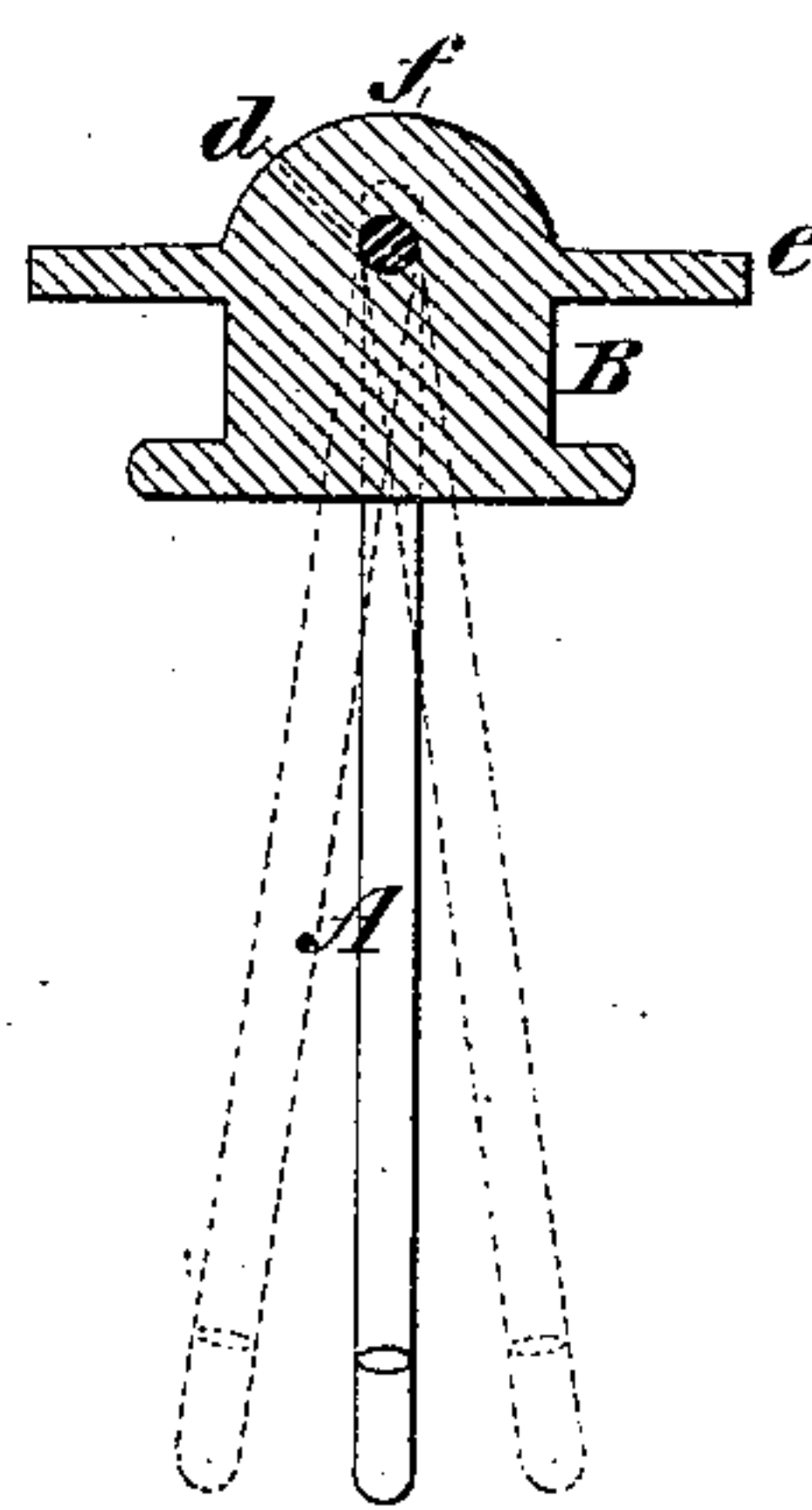


Fig. 5.

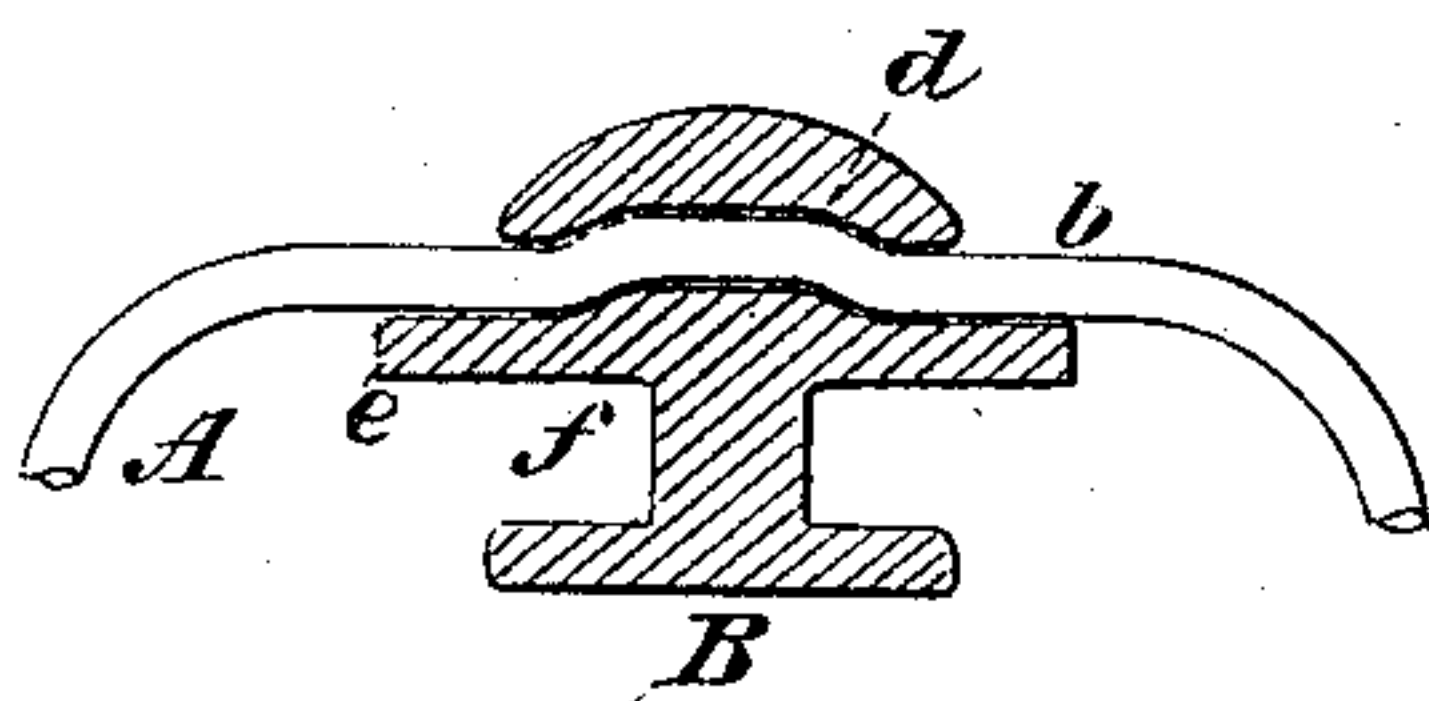


Fig. 3.

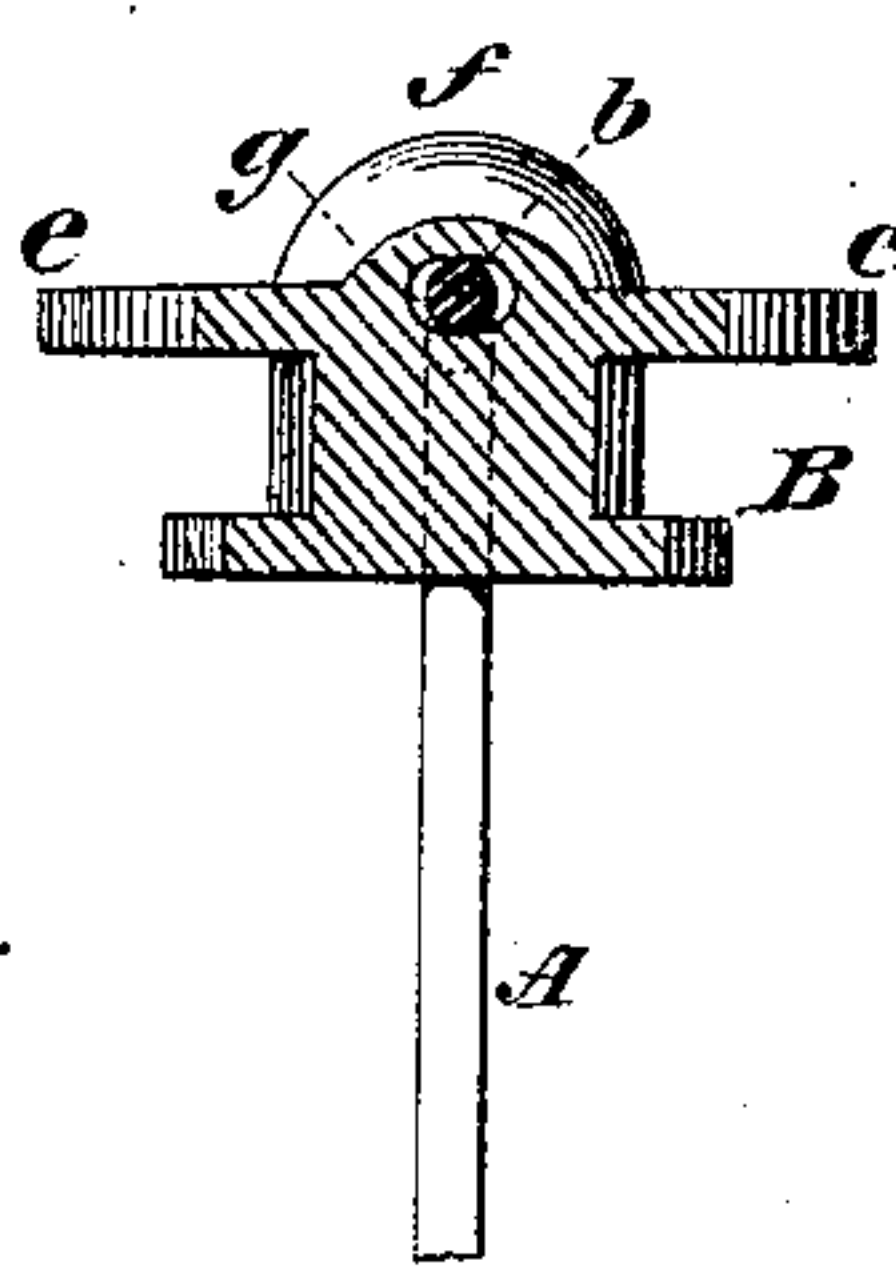
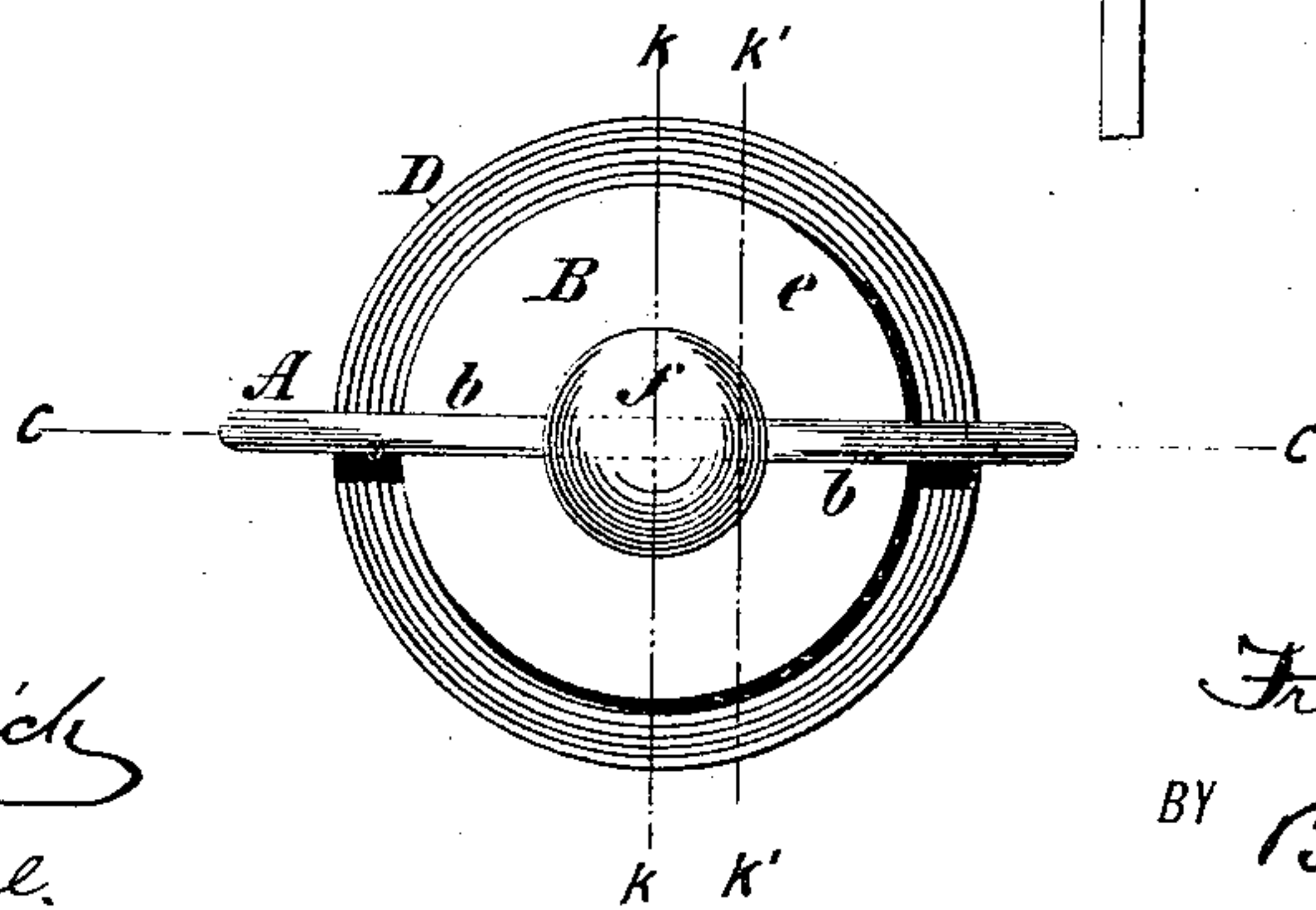


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FREDERICK P. MORHOUS, OF BENNINGTON, VERMONT, ASSIGNOR TO HENRY W. PUTNAM, OF SAME PLACE.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 377,042, dated January 31, 1888.

Application filed October 26, 1887. Serial No. 253,402. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK P. MORHOUS, of Bennington, in the county of Bennington, Vermont, have invented certain new and  
5 useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention relates more particularly to that class of bottle-stoppers in which the stopper proper is carried by a bail, which is piv-  
10 oted at its ends to a lever supported by the bottle-neck.

The object of this invention is to permit a stopper, which is cast directly upon a bail, to have a slight oscillatory motion on the bail,  
15 but not freedom to revolve thereon. By giving a slight oscillatory motion to the stopper proper it will more readily enter the neck of the bottle than if it were rigid upon the bail.

I accomplish the above-stated objects in the  
20 manner more fully hereinafter set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical section on the line *c c*,  
25 Fig. 4, of a bottle-stopper constructed according to my invention, showing the bail in side view. Fig. 2 is a cross-section on the line *k k*, Fig. 4. Fig. 3 is a cross-section on the line *k' k'*, Fig. 4. Fig. 4 is a top view of my improved  
30 stopper; and Fig. 5 is a vertical central section of a modified form of my stopper, the bail being shown in side view.

In the drawings, A represents a bail adapted to embrace the neck of the bottle, and it is  
35 provided with end hooks, *a*, for engagement with a lever or support of suitable construction that holds it on the bottle-neck. Near the center of the horizontal part *b* of the bail A is a bend, *d*. (See Figs. 1 and 5.)

40 B is the metal portion of the stopper-body, of construction suitable to receive and retain the rubber portion D. This metal portion B of the stopper is cast directly upon the horizontal portion *b* of the bail A, and around the  
45 bend *d*, as shown. Part of the stopper B, directly beneath the horizontal part *b* of the bail, is preferably in the form of a flange, *e*, and it extends somewhat each side of the bend *d* in the bail. The part *f* of the stopper B  
50 above the bail is narrower than the flange *e*, and extends but a slight distance beyond the bend *d*, as shown. The part *b* of the bail may

sink slightly into the flange *e*, if desired. When the stopper-body is thus cast upon the bail, it will be rigid and immovable thereon. 55

To permit a slight oscillatory motion of the stopper B thus rigidly cast upon the bail, I force the stopper-body on that part of the bail which is embraced by the cast metal, turning the body B somewhat on said bail. When this  
60 turn is given, the bend *d* acts as the center of motion, and the part *b*, which is eccentric thereto, frees the bend *d* from the surrounding casting and pushes the edge of the part *f* of the stopper B forcibly aside, thereby making  
65 an opening in which the corresponding part of the bail is free to play. The opening is shown at *g* in Fig. 3. The stopper may now oscillateslightly upon the bail, the bend *b* acting as the center of motion. As the stopper oscil-  
70 lates, the eccentric part *b* will be thrown against an edge of the opening *g*, which limits the oscillation in that direction. With the above construction a stopper which has been cast  
75 fast upon the bail will be given a slight play, but not freedom of rotation.

In the modification shown in Fig. 5 the bend *d* is in the reverse position to that in Fig. 1. Instead of the bend *d* an enlargement or flat-  
80 tening of the bail within the casting would afford good results.

I have made application for a patent for the process herein described, which application was filed December 7, 1887, Serial No. 257,219.

Having now described my invention, what I  
85 claim is—

1. In a bottle stopper, the combination, with the bail A, having eccentric portions, of the stopper-body mounted loosely on the bail and provided with the opening *g* through an in-  
90 tegral part of the body, this opening having eccentric enlargements to allow some play to the stopper-body on the bail, as specified.

2. The bail A, having the bend *d* and the eccentric portions *b*, combined with the stop-  
95 per B, mounted loosely upon the bail and provided with the opening *g* through an integral part of the body, this opening having eccentric enlargements, substantially as described.

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Witnesses:

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