

(No Model.)

H. E. SPAULDING.

BOTTLE STOPPER.

No. 283,432.

Patented Aug. 21, 1883.

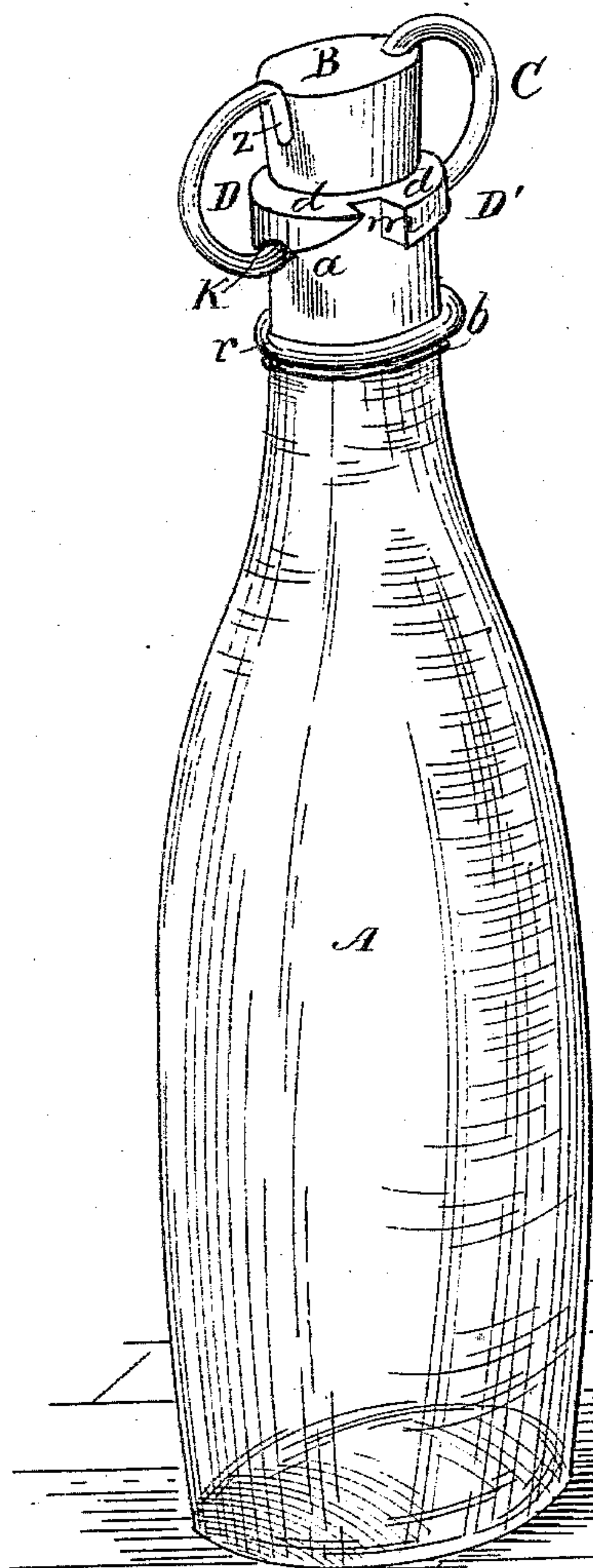


Fig. 1.

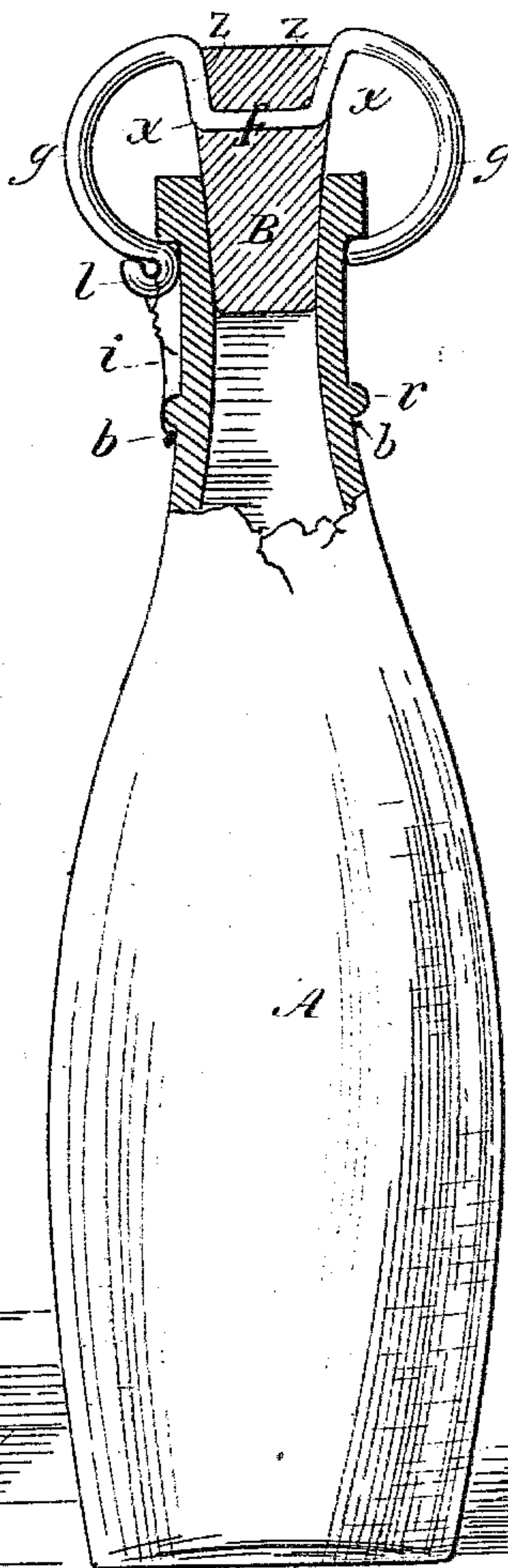


Fig. 2.

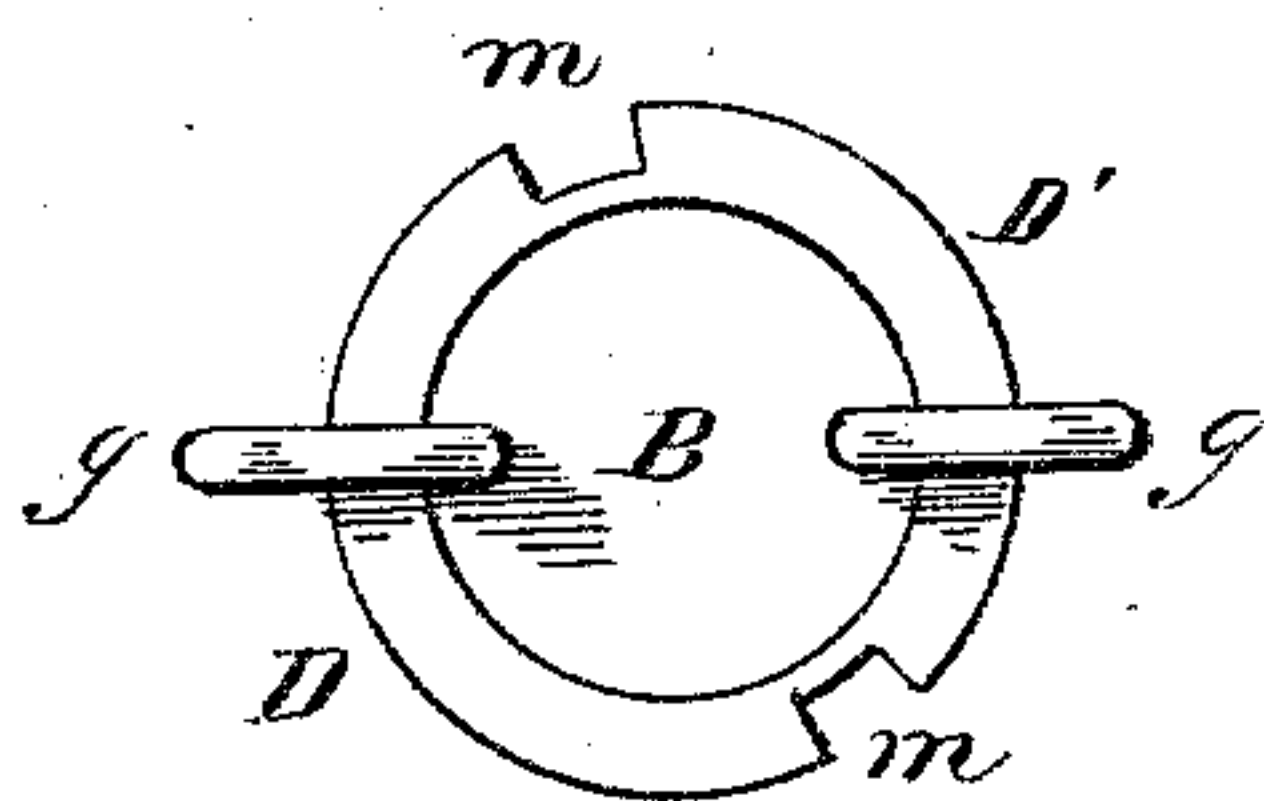


Fig. 3.

Witnesses:

Alfred. Tawcett  
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Inventor:

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Per. C. Ashcroft.  
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# UNITED STATES PATENT OFFICE.

HENRY E. SPAULDING, OF WORCESTER, ASSIGNOR OF ONE-THIRD TO  
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## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 283,432, dated August 21, 1883.

Application filed December 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY E. SPAULDING, of Worcester, in the county of Worcester and State of Massachusetts, have invented a certain new and useful Improvement in Bottle-  
5 Stoppers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the  
10 same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view representing a bottle provided with my improved stopper; Fig. 2, a sectional view, showing the form of the wire; and Fig. 3, a top plan  
15 view.

Like letters of reference indicate corresponding parts in the different figures of the drawings.  
20

My invention relates to that class of bottle-stoppers which are provided with means for securing them in position in the bottle or when in use; and it consists in a novel construction  
25 and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

30 The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

35 In the drawings, A represents the bottle, B the stopper proper, and C the binder or fastening wire.

The neck of the bottle is provided with two corresponding laterally-projecting lips or cam-shaped flanges, D D', which are flat on their  
40 upper sides, as seen at *d*, but inclined on their lower sides, as seen at *a*. These flanges are not connected, a space or vertical slot, *m*, being left between the heel or thick portion of the flange D' and the toe or thin portion of the flange D, a like slot being also left between  
45 the toe of the flange D' and heel of the flange D on the opposite side of the bottle.

The stopper B is preferably composed of

rubber, its binding-wire C being formed as best  
50 seen in Fig. 2, or having a U-shaped body, *f*, with two downwardly-projecting curved arms, *g g*, the free ends of which pass under and interlock with the flanges D D' when the stopper is in the bottle. The stopper is provided  
55 on either side with a slot, *x*, for receiving the sides *z* of the body *f*, the slots being so formed that the sides will be flush or nearly flush with the sides of the stopper when the wire is inserted in the same. The lower part of the body  
60 *f* is nearly straight, and rests in a hole extending horizontally through the stopper from the lower end of one of the slots *x* to the lower end of the other, as shown in Fig. 2. One of the arms *g* is provided at its outer end with an  
65 eye, *l*, and wire *i*, which is attached to a wire, *b*, disposed around the neck of the bottle below the boss *r*, to connect the stopper permanently with the bottle and prevent its loss; but the wires *i b*, boss *r*, and eye *l* may be dis-  
70 pensed with, if desired.

The binding-wire C may be molded into the stopper or inserted after the stopper is made, as preferred, as the stopper, being elastic, will readily yield sufficiently to permit the inser-  
75 tion of the binder after it is molded.

In the use of my improvement the stopper is inserted in the neck of the bottle in such a position as to bring the arms *g* over the openings *m*. It is then pressed down and turned, 80 the curved outer or lower ends of the arms passing under the cam-flanges D D' and binding or securely fastening the stopper, in a manner which will be readily obvious without a more explicit description. A small notch or  
85 depression, *k*, is formed in the under side of each of the flanges D D', into which the ends of the arms *g* rise, thereby locking the stopper or preventing it from being accidentally turned to permit the arms to escape through 90 the openings or slots *m* and the stopper detached from its seat in the neck of the bottle.

It will be understood that the binder C, being composed of wire, will spring or yield sufficiently to permit the ends of the arms to pass 95 under the flanges D D' and rise into the notches, the stopper B also yielding, and at the same time being forced into the neck of the bottle.



Having thus explained my improvement, what I claim is—

1. As a new article of manufacture, the stopper B, provided with the binder C, and adapted for use with a bottle having flanges or other means for securing the stopper in the bottle, substantially as specified.

2. The bottle A, provided with the flanges D D', in combination with the stopper B, having the binder C, substantially as set forth.

3. The bottle A, provided with the cam-

flanges D D', in combination with the stopper B, provided with the wire binder C, substantially as specified.

4. The bottle A, provided with the flanges D D' and notch k, in combination with the stopper B, provided with the wire binder C, substantially as set forth.

HENRY E. SPAULDING.

Witnesses:

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