

(No Model.)

S. OAKMAN.  
BOTTLE STOPPER.

No. 547,936.

Patented Oct. 15, 1895.

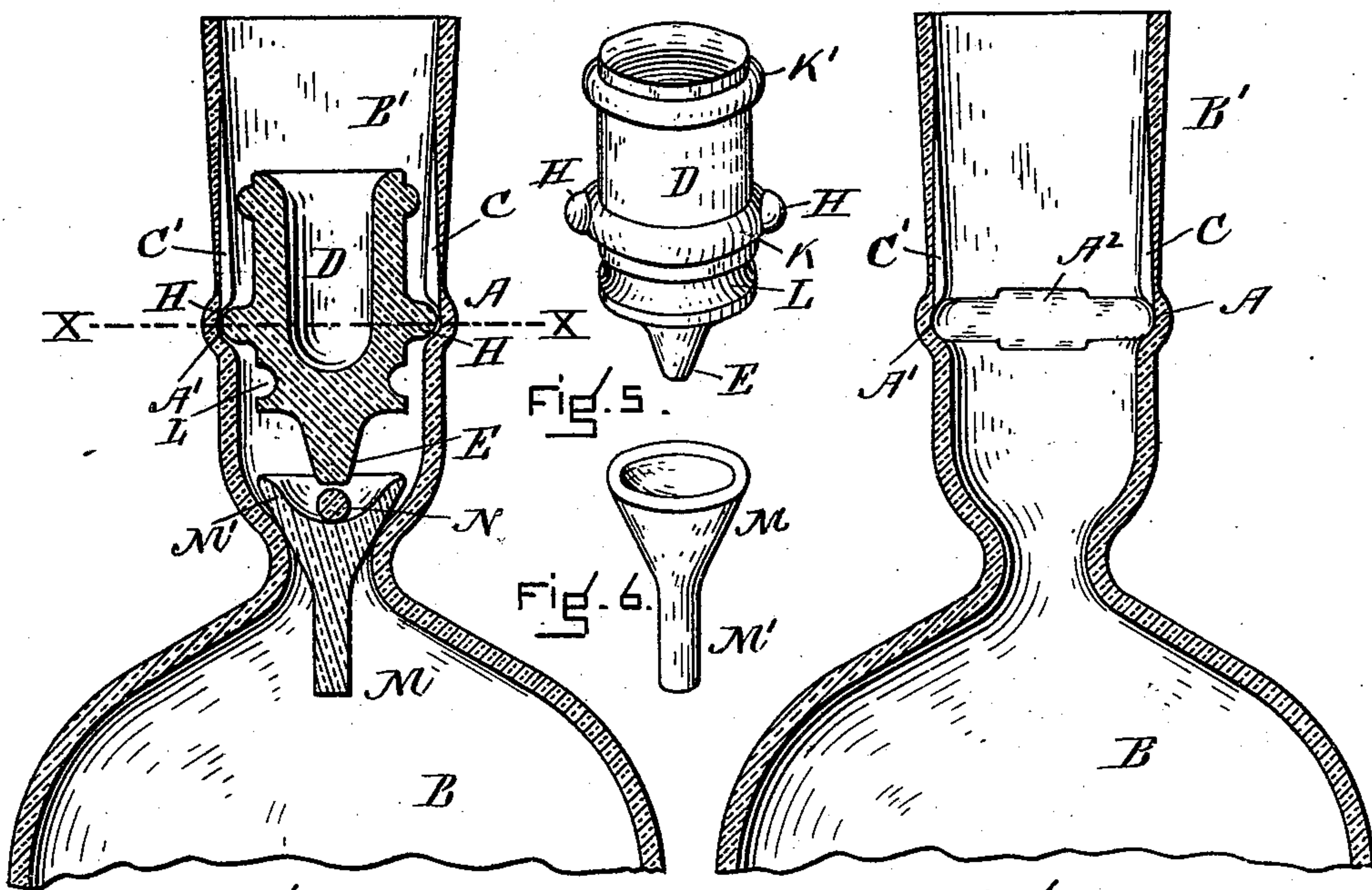


Fig. 1.

Fig. 2.

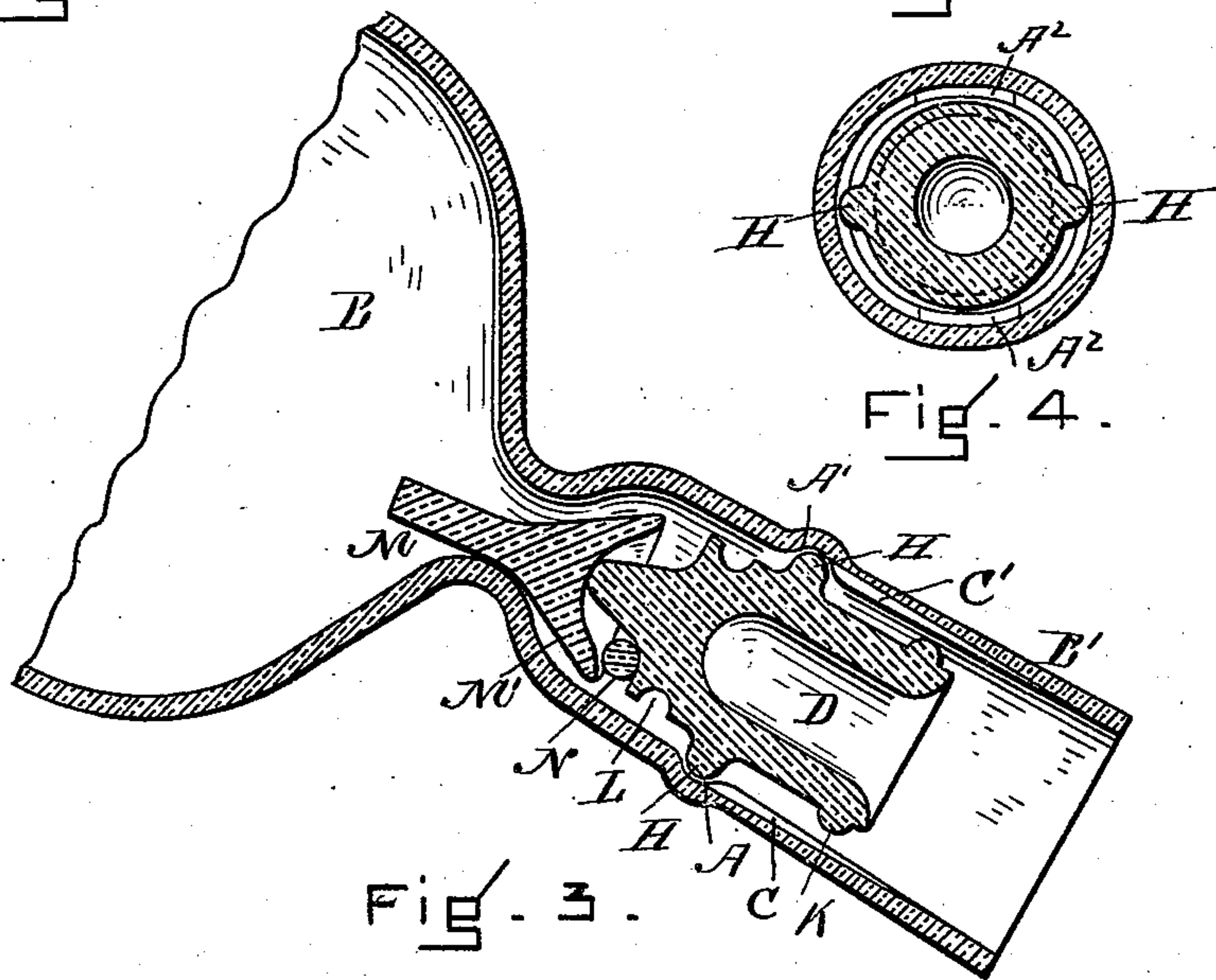


Fig. 3.

Fig. 4.

WITNESSES

Frank B. Parker.  
William H. Parry

INVENTOR

Samuel Oakman



# UNITED STATES PATENT OFFICE.

SAMUEL OAKMAN, OF MELROSE, MASSACHUSETTS.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 547,936, dated October 15, 1895.

Application filed May 31, 1895. Serial No. 551,295. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL OAKMAN, of Melrose, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Bottle-Stoppers, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of bottles that are intended to be used but once—that is, after having been filled and closed the contents may be readily turned out; but the bottle cannot be refilled. This result I attain by means of the construction and arrangements shown in the accompanying drawings, in which—

Figure 1 shows in vertical section the neck of a bottle and the several parts of the stopping device all in place. Fig. 2 shows in vertical section the neck of the bottle. Fig. 3 shows in vertical section the position of the bottle and parts as they appear when the contents are being turned out. Fig. 4 is a cross-section taken on line  $x x$  of Fig. 1. Figs. 5 and 6 show details in perspective.

In the drawings, B and B' represent the parts of the bottle to which my invention applies.

A A' is a recess made in the interior surface of the neck, as shown. This recess A A' is widened in two sections about opposite each other. One of these widened sections is shown at A<sup>2</sup>, Fig. 2. The section at  $x x$  is not circular, but oval, so that the bosses H H will be held by friction when forced hard against the walls of the section. By widening the recess A A' at A<sup>2</sup> shoulders are formed, so that when the bosses H H of the locking part D are once forced into the said widened parts they are not likely to work out.

C and C' are vertical recesses made as shown, terminating in the recess A.

M M' is a cup-shaped valve adapted to fit into the contracted part of the neck of the bottle, as shown in Fig. 1. This valve is shown in perspective in Fig. 6.

The locking-piece D is formed as shown in Figs. 1 and 5 and provided with small bosses H H, as well as annular members K and K', and is grooved as shown at L. The lower end

of the locking-piece D is a projection E. A small ball N is placed in the cup of the valve M M'.

To use my bottle, I proceed as follows: The bottle, having none of the attachments within its neck and in the condition shown in Fig. 2, is filled. Then the valve M M' is inserted, having the ball N in the cup. Now the locking-piece D is inserted, which can be done by so placing it in the neck of the bottle that the bosses H H will coincide with the grooves C C', thus allowing the locking-piece D to drop into the position shown in Fig. 1. Now by turning the said piece D the bosses H H will be crowded into wider parts A<sup>2</sup> of the recess A A' and thus become locked in, so that it will be very difficult to remove it, the sections A<sup>2</sup> being at the ends of the shorter diameter of the oval.

If necessary, the bosses H H may be touched with cement; but it is thought that merely turning the piece around so as to press the bosses hard into the narrow part of the recess will be sufficient to hold the locking-piece firmly in place.

To turn out the contents of the bottle, it is tipped to the position shown in Fig. 3. This action will cause the small ball N to roll away from the center of the valve, so as to leave it free to fall into the position shown, Fig. 3, and thus allow the contents of the bottle to run out.

The use of the small ball is to prevent the valve M M' from being raised from its seat by shaking the bottle up and down.

It is obvious that the bottle may be corked and sealed in the usual manner.

I claim—

In a bottle, the combination of the neck contracted so as to form a valve seat, and having a recess extending around the interior of the said neck, said recess being made with widened parts as described; a valve adapted to fit said valve seat, and a ball resting upon the upper end of the valve, with a locking piece adapted to act in combination with the said ball to prevent the valve from opening, except when the bottle is turned down, said locking piece being provided with bosses H

H adapted to fit frictionally close into the  
said recess, and to be crowded through said  
recess into the widened part by forcibly turn-  
ing, substantially as and for the purpose set  
5 forth.

In testimony whereof I have signed my  
name to this specification, in the presence of

two subscribing witnesses, on this 29th day of  
May, A. D. 1895.

SAMUEL OAKMAN.

Witnesses:

FRANK G. PARKER,  
WILLIAM H. PARRY.