

No. 878,430.

PATENTED FEB. 4, 1908.

W. B. THOMSON.  
ANTISIPHON VALVE.  
APPLICATION FILED AUG. 12, 1907.

Fig. 1.

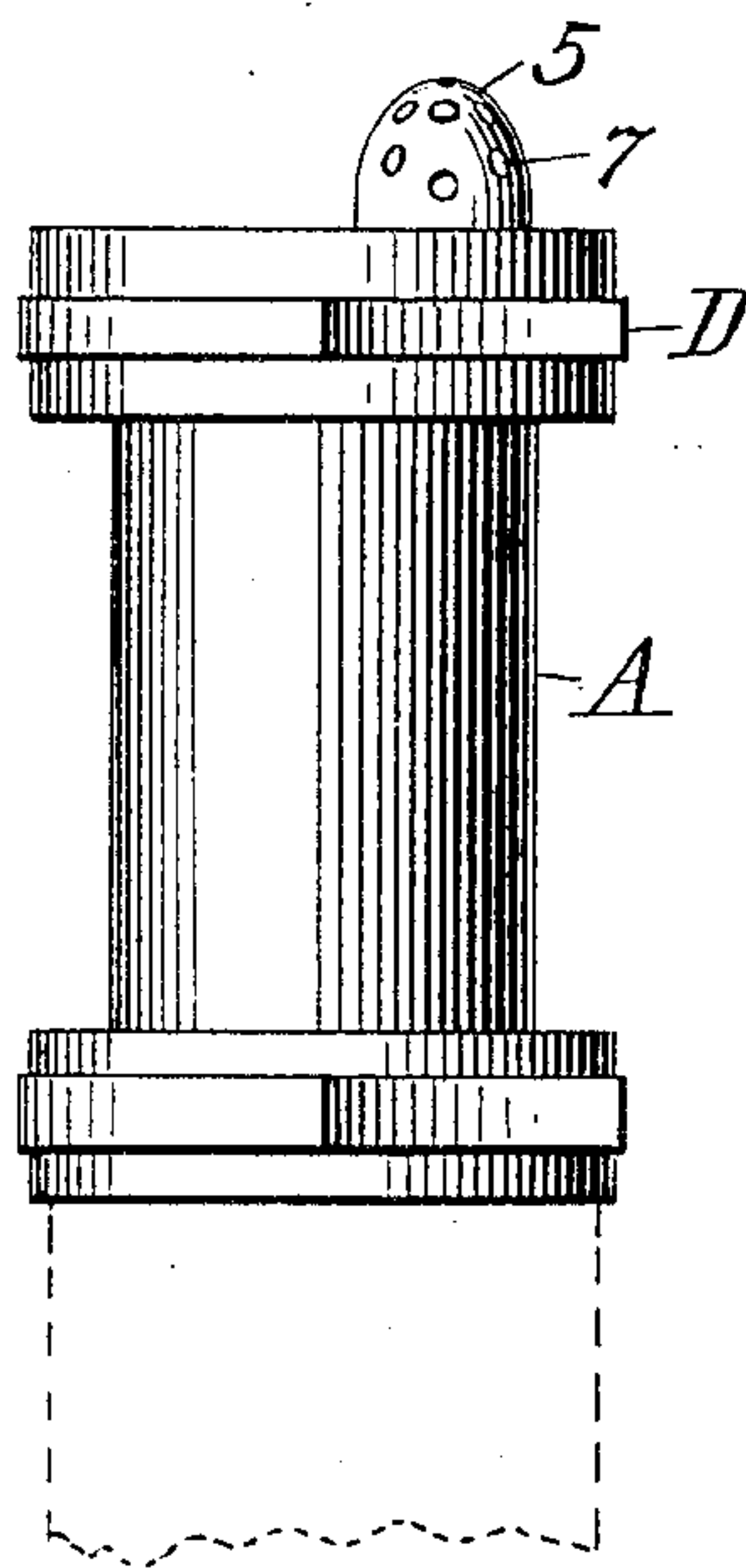


Fig. 2.

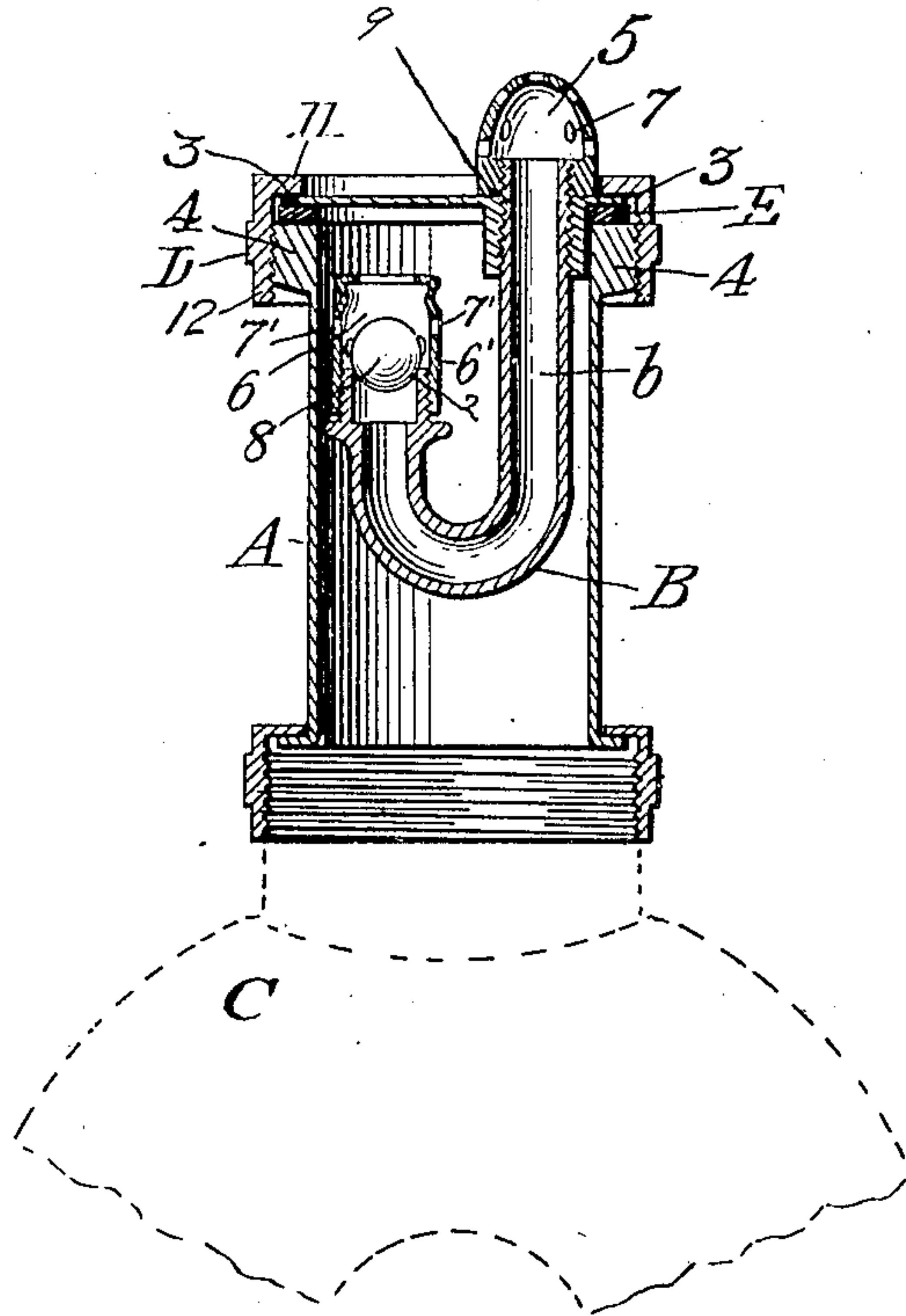
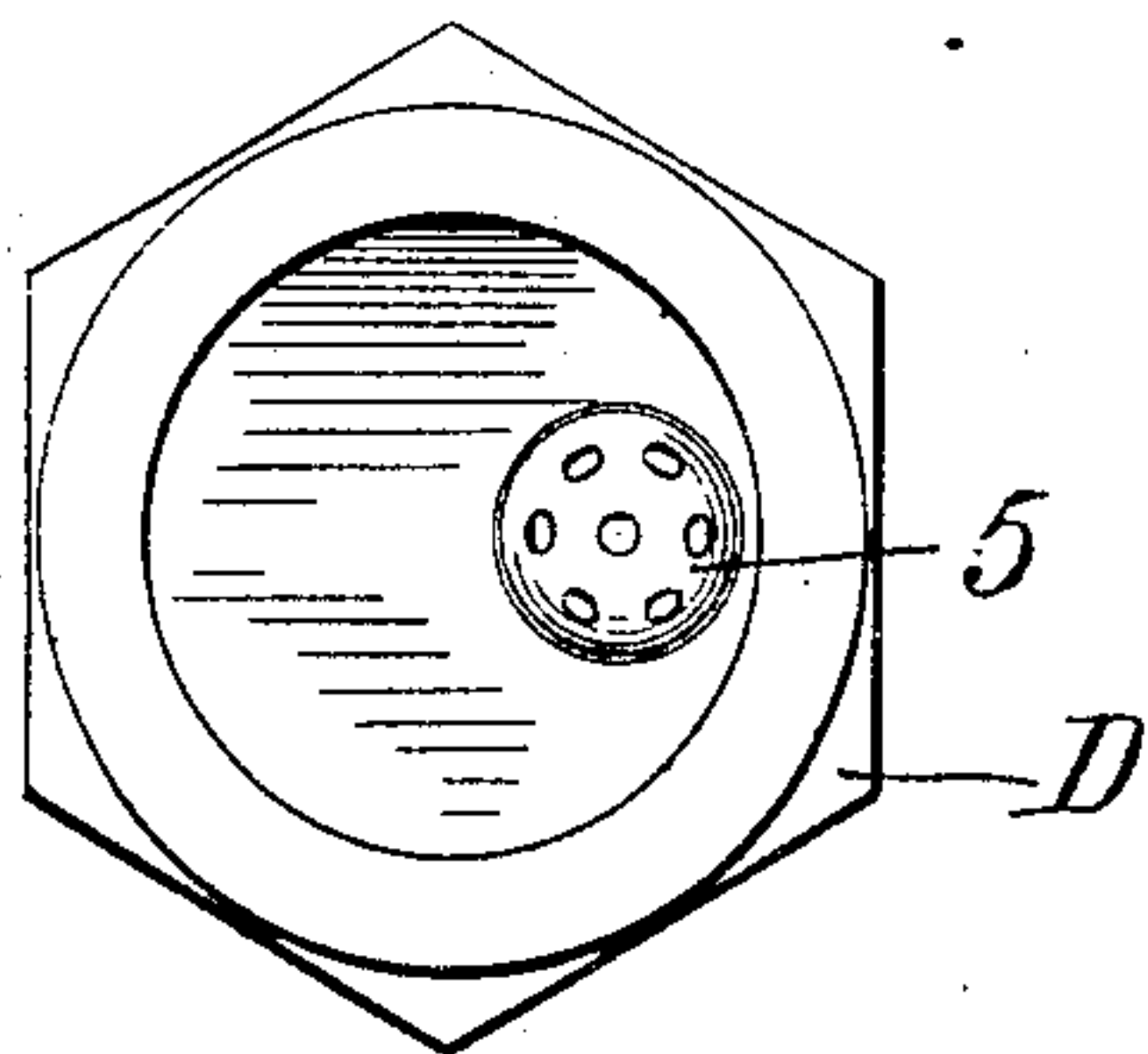


Fig. 3.



Witnesses:  
D. A. Bates  
D. E. Sloan

William B. Thomson  
for John B. Rogers  
city  
Inventor:

# UNITED STATES PATENT OFFICE.

WILLIAM B. THOMSON, OF CHARLEROI, PENNSYLVANIA.

## ANTISIPHON-VALVE.

No. 878,430.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed August 12, 1907. Serial No. 388,075.

*To all whom it may concern:*

Be it known that I, WILLIAM B. THOMSON, a citizen of the United States, residing at Charleroi, in the county of Washington and State of Pennsylvania, have invented a new and useful Improvement in Antisiphon Valves, of which improvement the following is a specification.

My invention relates to an improvement in an anti-siphon valve, intended to be used usually on traps for closets, sewers, etc., using water for a check valve to odors and gases.

The object of my invention is to prevent the siphoning of the water from the trap by preventing the suction of the outflowing pipe from operating on the trap water.

For a workable understanding of my invention reference should be made to the drawings illustrating the parts embodying the mechanism of the same, specifications and claims.

In the accompanying drawings Figure 1 is the vertical perspective of the casing. Fig. 2 is a vertical half section, showing the constructive parts set for operation. Fig. 3 is a horizontal view looking downward.

A, is the exterior incasing shell or casing, B, the interior joined parts.

C, is a trap pipe.

D, is the washer, E, the collar, and 6 is a ball valve.

A, the casing, is hollow and attached, preferably by screw threads, to the trap pipe, C; it is supported uprightly, and supports by a reinforced annular rim 4 of the upper end, the internal part, B; the said casing, A, is open at the lower end to communicate with the passage in the pipe, C, to which it is attached.

B, the internal part, consists of a bent tube *b* with a short arm. End, 1, of the said tube projects through the lid, 3, at, 9, and is in communication with the air; it is provided with a perforated dust shield, 5. A pliable washer, D, is placed between the said lid, 3, and rim, 4, to prevent the leakage of air or gases. The said lid, 3, is secured in place on the upper end of the said casing by collar, E, the said collar is provided with a shoulder 11 and internal threads, 12, adapted to fit the exterior threads, 13, of the rim, 4, of the casing,

the washer, D, being between the said lid, 3, and rim, 4. End, 2, is provided with a larger closed cylindrical terminal cap or head 6', attached, preferably by screw threads. Said terminal, 6', is perforated, 7, 7', 7'', etc. The said terminal 6' is hollow and contains a ball, 8, preferably rubber, resting on the end, 2. The said ball is adapted to slide up and down the said terminal 6' when actuated by the flow of air.

The operation is as follows: When the siphoning force of the outflowing pipe, C, pulls at the contents in the higher part of the trap, the air and ball in the terminal 6', being lighter than the water in the seal of the trap, will yield and automatically draw and lift the ball from its seat and let the air in the vacuum there being made, thereby preventing the said siphoning force from drawing the water out of the seal of the trap.

What I claim as new and desire to secure by Letters Patent is:—

1. In an air inlet valve for sewer traps, the combination with a casing adapted to be detachably secured to the crown of the trap, of a removable lid for the casing, a clamping collar securing the lid in position, a bent tube having one end detachably secured to the lid and depending within the casing and having at its other end a vertically facing valve seat, and a valve fitting the seat.

2. In an air inlet valve for sewer traps, the combination with a casing adapted to be detachably secured to the crown of the trap, of a removable apertured lid for the casing, a collar having exterior screw threaded engagement with the upper portion of the casing and an internal flange engaging the outer surface of the lid, a bent tube screw threaded into the aperture of the lid and depending within the casing and having at its other end a vertically facing valve seat, a ball valve fitting the seat, and a cage inclosing said valve.

3. In an air inlet valve for sewer traps, the combination with a casing adapted to be detachably secured to the crown of the trap, of a removable apertured lid for the casing, packing between the lid and the casing, a collar having exterior screw threaded engagement with the upper portion of the casing and an internal flange engaging the outer



surface of the lid, a bent tube screw threaded into the aperture of the lid and depending within the casing and having at its other end a vertically facing valve seat, a valve fitting  
5 the seat, a shield perforated in its upper part inclosing the valve, and a strainer secured to the tube outside the lid.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM B. THOMSON.

In the presence of—

BOYD E. OLLER,  
JOHN MAINES.