

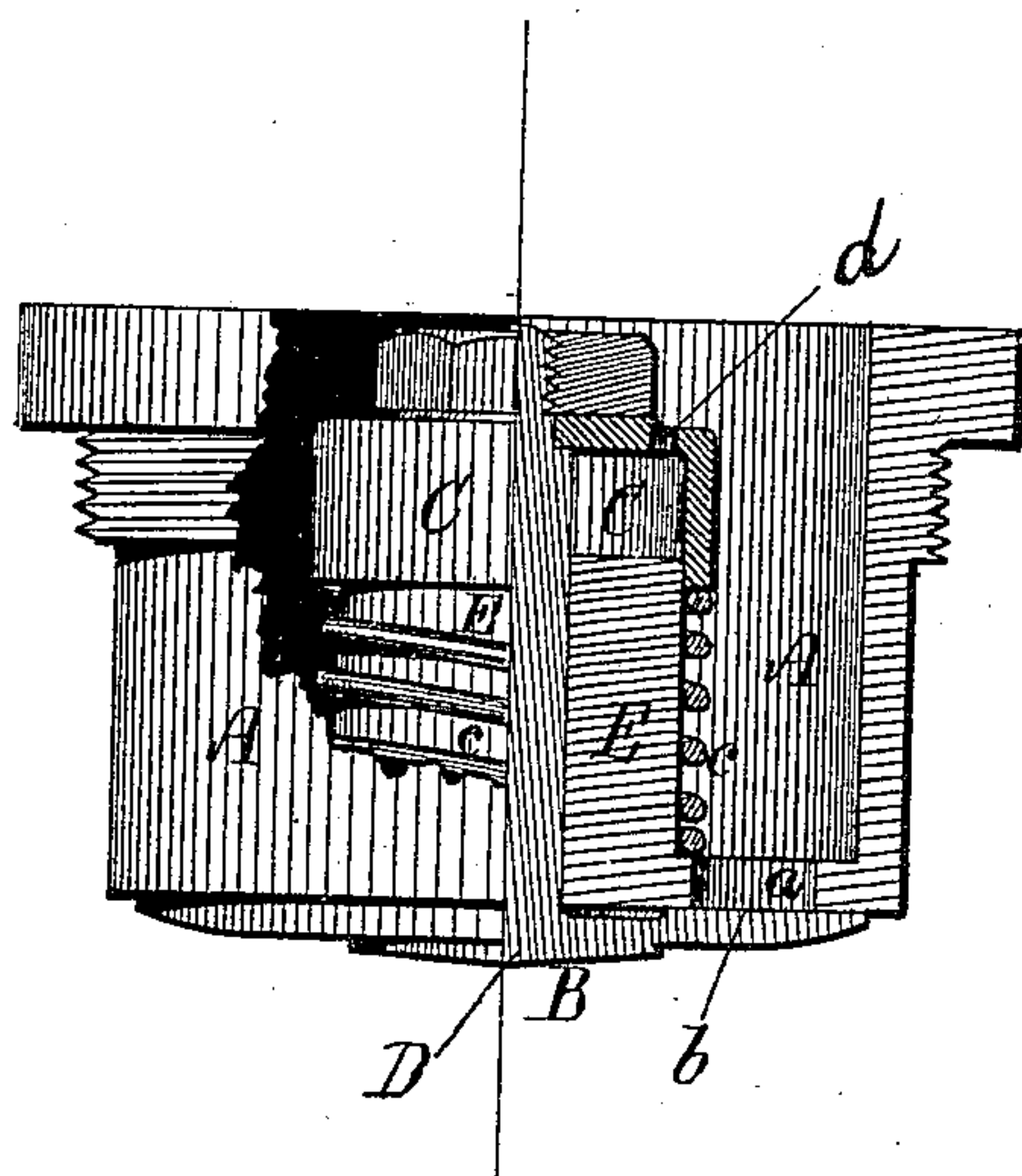
(No Model.)

G. B. BRAYTON.

AIR PUMP VALVE.

No. 269,914.

Patented Jan. 2, 1883.



Witnesses,  
H. C. Lodge  
F. S. Simpson.

Inventor,  
George B. Brayton.  
A. Curtis, Atty.

# UNITED STATES PATENT OFFICE.

GEORGE B. BRAYTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE  
BRAYTON PETROLEUM ENGINE COMPANY, OF SAME PLACE.

## AIR-PUMP VALVE.

SPECIFICATION forming part of Letters Patent No. 269,914, dated January 2, 1883.

Application filed April 10, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE BAILEY BRAYTON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Air-Pump Valves; and I do hereby 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 drawing, and to letters or figures of reference marked thereon, which forms a part of this specification.

Heretofore an obstacle has been met with in the operation of free valves of air-pumps from the tendency of such valves to flutter upon their seats consequent upon the changes in pressure of the current.

The object of my present invention is to avoid the noise and other objectionable results of the fluttering of the valves of air-pumps; and I effect my object by the employment of a dash-pot composed of an inverted cup secured to the end of the valve-stem and partially inclosing a tubular boss or stationary plunger constituting the guide to such stem and erected upon the bottom of the valve box or case, a small aperture being created in the cup to permit the valve to open and obviate "wire-drawing," so called.

The drawing accompanying this specification represents a section of a valve and its box containing my invention.

In said drawing, A represents the valve box or case of an air-pump, apertures *a* being formed in the bottom *b* of such case to permit of inlet of air thereto.

The valve shown at B, which is a puppet, is disposed outside of the case A and closes against the bottom of the latter, which constitutes a

common valve-seat, the valve being closed upon such seat by a coiled spring, *c*, which exerts its stress between the bottom of the case or chamber A and the lower edge or margin of an inverted or pot cup, C, secured in a proper manner to the top of the valve-stem, which is shown at D as extending upward through a tubular boss or guide, E, erected upon the bottom of the chamber A. The relative positions of the boss or guide E and cup or pot C are such that when the valve B is closed upon its seat the mouth of such cup incloses the upper end of the said boss. The cup C constitutes the pot and the boss E the stationary plunger of a dash-pot. Any tendency to illegitimate fluctuations or flutterings of the valve is neutralized by the dash-pot, which does not, however, interfere with the legitimate opening and closing of such valve. A small aperture, *d*, is created in the top of the cup C to permit of legitimate opening of the valve and avoid wire-drawing.

I claim—

1. In combination with valve-box A, having tubular boss E attached thereto, the valve B, having its stem extending up through said boss, a cup attached to said stem and fitting over said boss, and a spring which tends to force said cup away from said boss, substantially as set forth.

2. The cup C, having an aperture, *d*, for the purpose set forth, in combination with boss E, spring *c*, and valve B, substantially as set forth.

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

GEORGE BAILEY BRAYTON.

Witnesses:

H. E. LODGE,  
F. CURTIS.