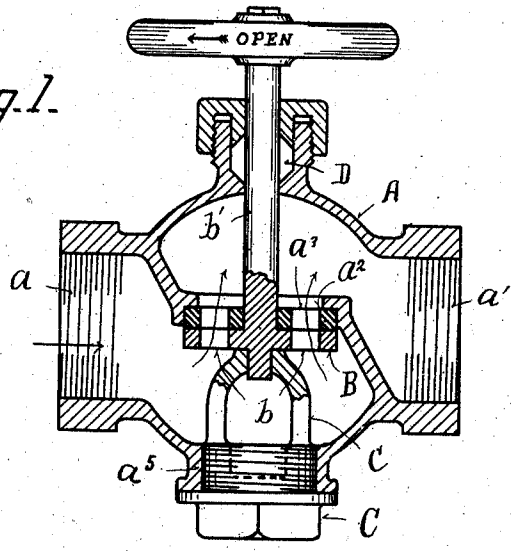
No. 846,644. PATENTED MAR. 12, 1907.

J. E. BRADY.

VALVE.

APPLICATION FILED OCT. 13, 1905.

Fig. 1.



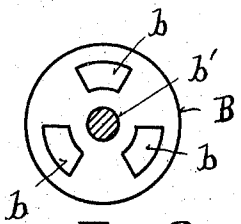


Fig. 2.

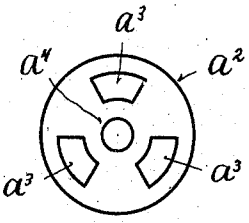


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

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VALVE.

No. 846,644. Specification of Letters Patent. Patented March 12, 1907.

Application filed October 13, 1905. Serial No. 282,557.

To all whom it may concern:

Be it known that I, JAMES E. BRADY, a citizen of the United States of America, and a resident of Covington, county of Kenton, State of Kentucky, have invented certain new and useful Improvements in Valves, of which the following is a specification.

The object of my invention is a valve for use particularly with steam, which has few and simply-constructed parts, free of springs, and in which the valve is held evenly to its seat, but with a minimum amount of friction. This object is attained by the means illustrated in the drawings, in which—

Figure 1 is a central longitudinal sectional view of a valve embodying my invention. Fig. 2 is an inverted plan view of the valve, the lower end of the valve-stem being shown in section. Fig. 3 is a similar view of the valve-seat.

Referring to the parts, valve-casing A has an entrance-port a and an exhaust-port a' and has a central horizontal perforated partition, into the lower side of which the valve-seat a^2 is removably secured. Valve-seat a^2 has a series of radial perforations a^3 and a central perforation a^4 to pass the stem b' of the valve B, which is seated upward against the valve-seat a^2, has a series of radial perforations b, which may be brought to register with the perforations a^3, and has projecting from its lower side a short extension of the valve-stem b'.

Casing A has a lower internal screw-threaded annular extension a^5, into which is screwed a nut C, which has an upwardly-projecting spring-bracket c, which is split at its upper end and has a recess to receive the lower end of the valve-stem b'. Bracket c is made of a length such that when the end C is screwed into the extension a^5 the bracket bears upward against the valve B with a yielding pressure sufficient to hold the valve in position against the valve-seat, but so as to allow its moving readily upon the seat. When the valve is closed, the pressure of the stem against the under side thereof holds it to its seat firmly enough to prevent the escape of any steam between it and its seat.

Valve-casing A has an upper annular extension which forms a housing D for packing.

The hand-wheel upon the stem is marked so that it indicates the relative position of the stem to the casing A when the valve is open.

What I claim is —

1. A valve-casing having a partition dividing it into two chambers, an opening in the valve-casing opposite the partition, a valve-seat formed in the partition having a series of perforations therein, a valve seated against the valve-seat and having perforations which may be made to register with the perforations in the valve-seat and a nut seated in the opening in the casing opposite the partition and having an upwardly-projecting bracket to contact the valve and to hold it yieldingly to its seat.

2. A valve-casing having an inlet and an outlet opening divided by a horizontal perforated partition, and having an opening in its bottom opposite the partition, a removable valve-seat secured in the partition and having a series of perforations in it, a valve seated upward against the valve-seat, having a series of perforations to be made to register with the perforations in the valve-seat, and a nut seated in the opening in the bottom of the casing and having an upwardly-projecting bracket to engage the lower end of the valve-stem and to bear against the valve to hold it yieldingly and evenly to its seat.

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Witnesses:

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