

(No Model.)

J. CHRIST.
GLOBE VALVE.

No. 258,019.

Patented May 16, 1882.

Fig. 1.

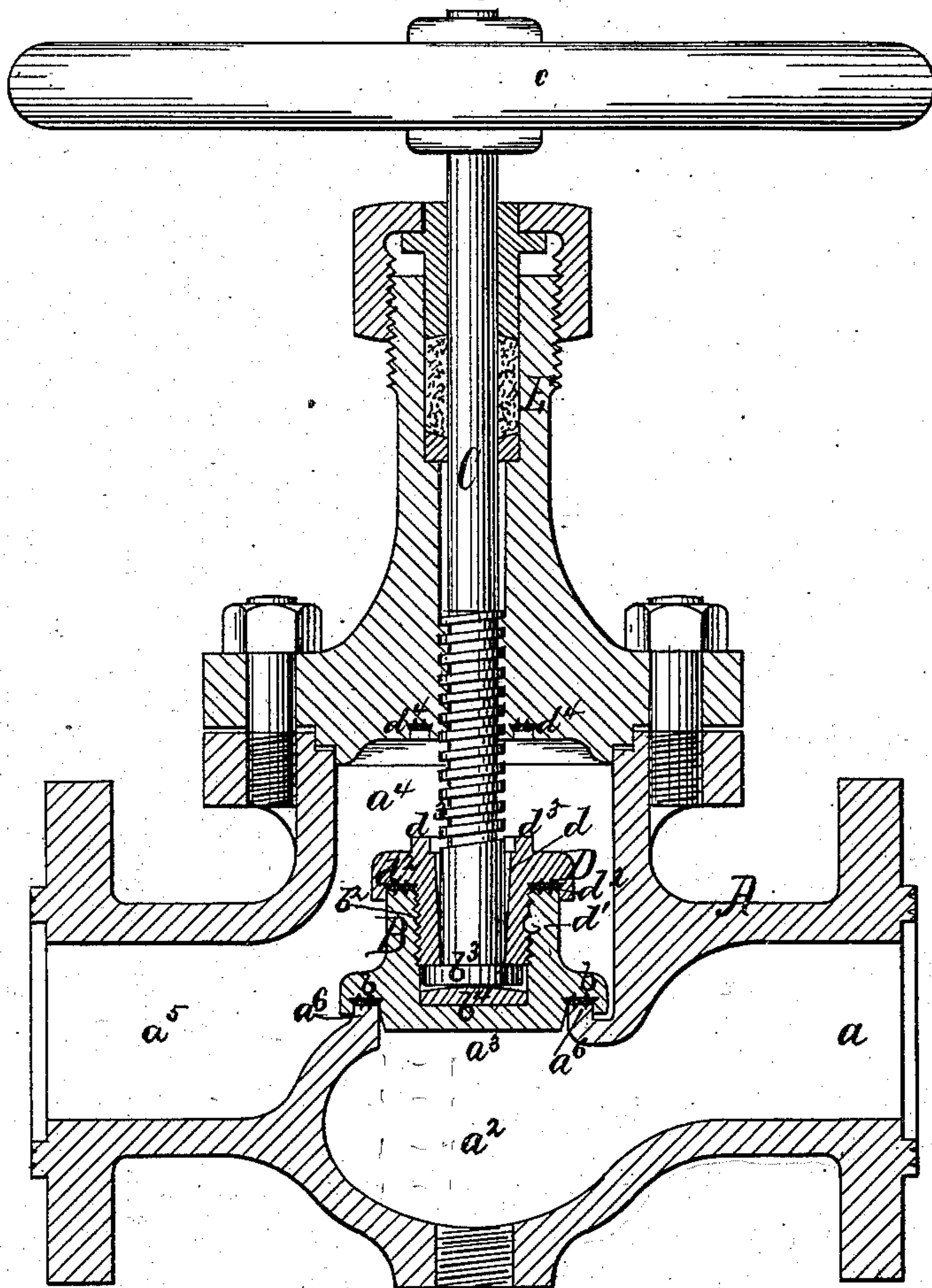
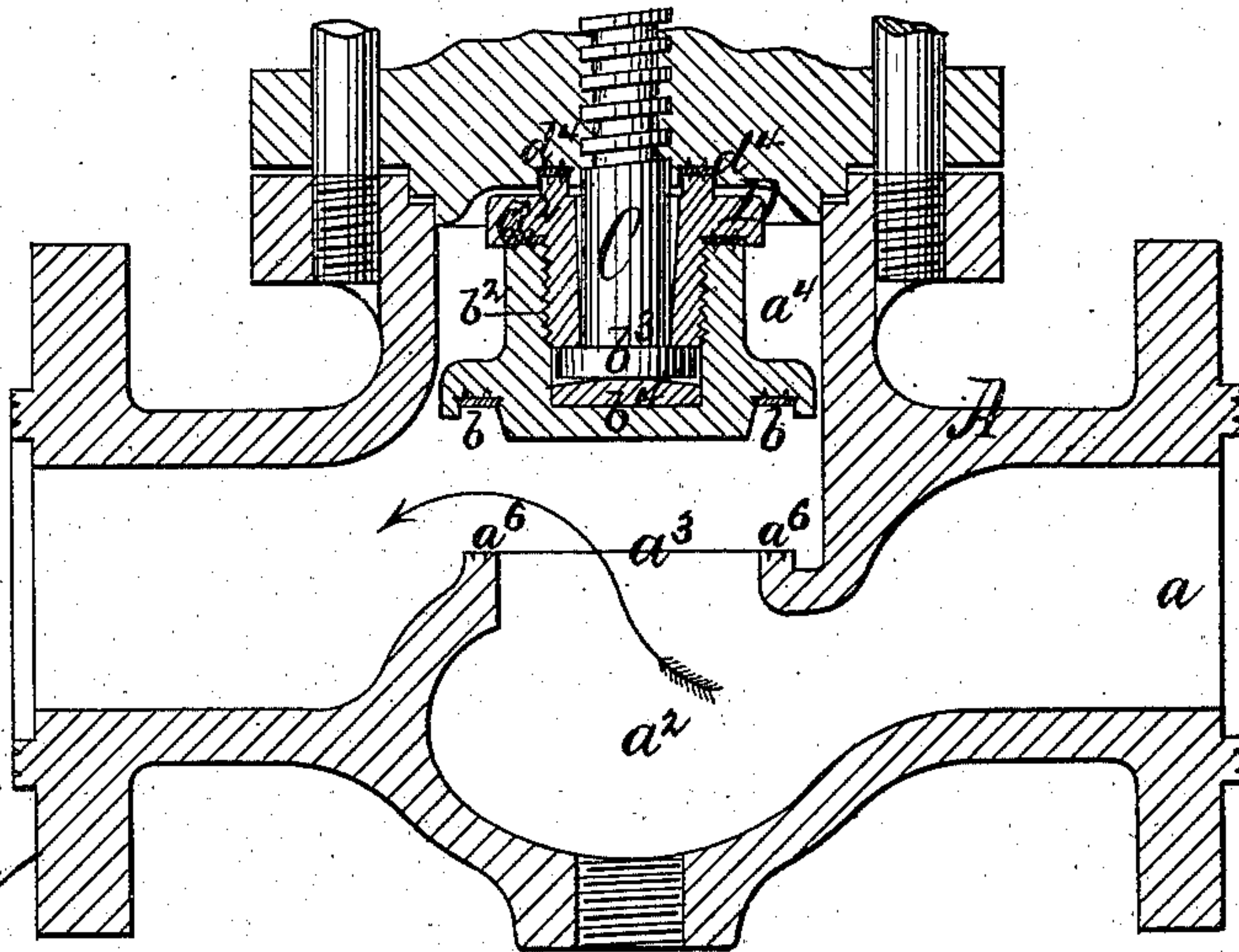


Fig. 2.



Witnesses:
Harry Eichling
A. S. Fitch.

Inventor
John Christ.
By *H. Fitch*
Att'y.

UNITED STATES PATENT OFFICE.

JOHN CHRIST, OF HOBOKEN, NEW JERSEY.

GLOBE-VALVE.

SPECIFICATION forming part of Letters Patent No. 258,019, dated May 16, 1882.

Application filed November 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN CHRIST, of the city of Hoboken, county of Hudson, and State of New Jersey, am the inventor of an Improved Valve, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a valve of that description known as "globe-valves," and more particularly to such a valve designed for use in controlling the flow or passage of volatile gases; and it consists in a valve having the ports or passages through it of the peculiar form hereinafter described, together with a head and stem, the latter provided with a stuffing-box constructed and arranged to operate as hereinafter more at length set forth.

Figure 1 is a vertical central sectional view of a valve embodying my invention, and showing the parts in position to close the valve; and Fig. 2 is a similar view of the same, showing the valve open.

A is the valve-body, and a is the entrance-port through which the gas or other matter enters into the valve-body, said entrance-port being formed as shown in the drawings—that is, leading in from one side of the body and opening into a chamber, a^2 , in the upper part of which is the opening a^3 , which is designed to be opened and closed by the valve-head. At a^4 is a chamber communicated to by the opening a^3 from the chamber a^2 , and in which the valve-head moves; and a^5 is the exit-port leading from the chamber a^4 out of the valve-body.

B is the valve-head, the under face of which has the annular channel b , furnished with suitable packing, which closes down upon the projecting neck a^6 of the opening a^3 . The head B is attached to the stem C in the following manner: The head is centrally recessed from its upper side, and into this recess b^2 the end of the stem is passed, said end having the flange b^3 , and rests upon the convex upper face of a disk, b^4 , which is placed at the bottom of said recess, as shown. A screw-cap, D, having a central opening, d , is slipped upon the valve-stem and is screwed down into the recess in

the head, said recess being threaded to receive it, the lower edge of said cap abutting upon the shoulder of the flange b^3 of the stem. A lock-pin, d' , may be used to hold the cap firmly in place. The upper edge of the cap D has an annular flange, d^2 , the under face of which is channeled or grooved and suitably packed to form a gas-tight joint between said face and the upper edge or rim of the head. The upper face of the cap D has an annular projection, d^3 , arranged to enter or engage, when the valve is opened by the raising of the head, a similar groove or channel, d^4 , in the upper wall of the chamber a^4 , about the threaded opening through which the valve-stem extends, said groove or channel being furnished with suitable packing.

E is a stuffing-box, which is bolted upon the valve-body, and through it the stem C extends to the exterior of the valve, where it is provided with the hand-wheel c , as shown.

The central opening, d , of the cap D, through which the stem passes, is made somewhat conical, as shown in the drawings, and by means of this construction, together with the convex disk b^4 , upon which the end of the stem works in the head, sufficient play is given to the head upon the stem to enable it to seat itself firmly and form a gas-tight joint, either on the opening a^3 when the head is lowered to close the valve or in the groove d^4 about the stem when the head is raised to open the valve.

The purpose of my invention is to provide a valve which shall be capable of furnishing a gas-tight joint at the valve-seat when the valve is closed, and also to prevent the escape of gas by the opening through which the valve-stem passes out from the valve-body when the valve is opened. It is evident that when the valve I describe is closed the head will seat itself firmly upon the opening or gate a^3 , and that when it is opened the escape of gas by the opening through which the stem passes will be effectually prevented by the gas-tight joints at d^2 and d^3 , as well as by the stuffing-box E.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a globe-valve having the body A, with

ports and chambers, substantially as described,
the centrally-recessed head B, provided with
the convex plate b^4 , together with the stem C,
having flange b^3 , and the screw-cap D, having
5 central tapered aperture, d , said head B hav-
ing annular recess b , adapted to fit upon seat
 a^6 of the valve, and said cap D having annular
projection d^3 , adapted to fit into the recess d^4

about the stem C when the valve is opened,
as and for the purpose specified.

J. CHRIST.

Witnesses:

P. M. CUSHING,

S. J. WAINWRIGHT, Jr.