

W. CHESLEY.
GLOBE VALVE.

Fig:1.

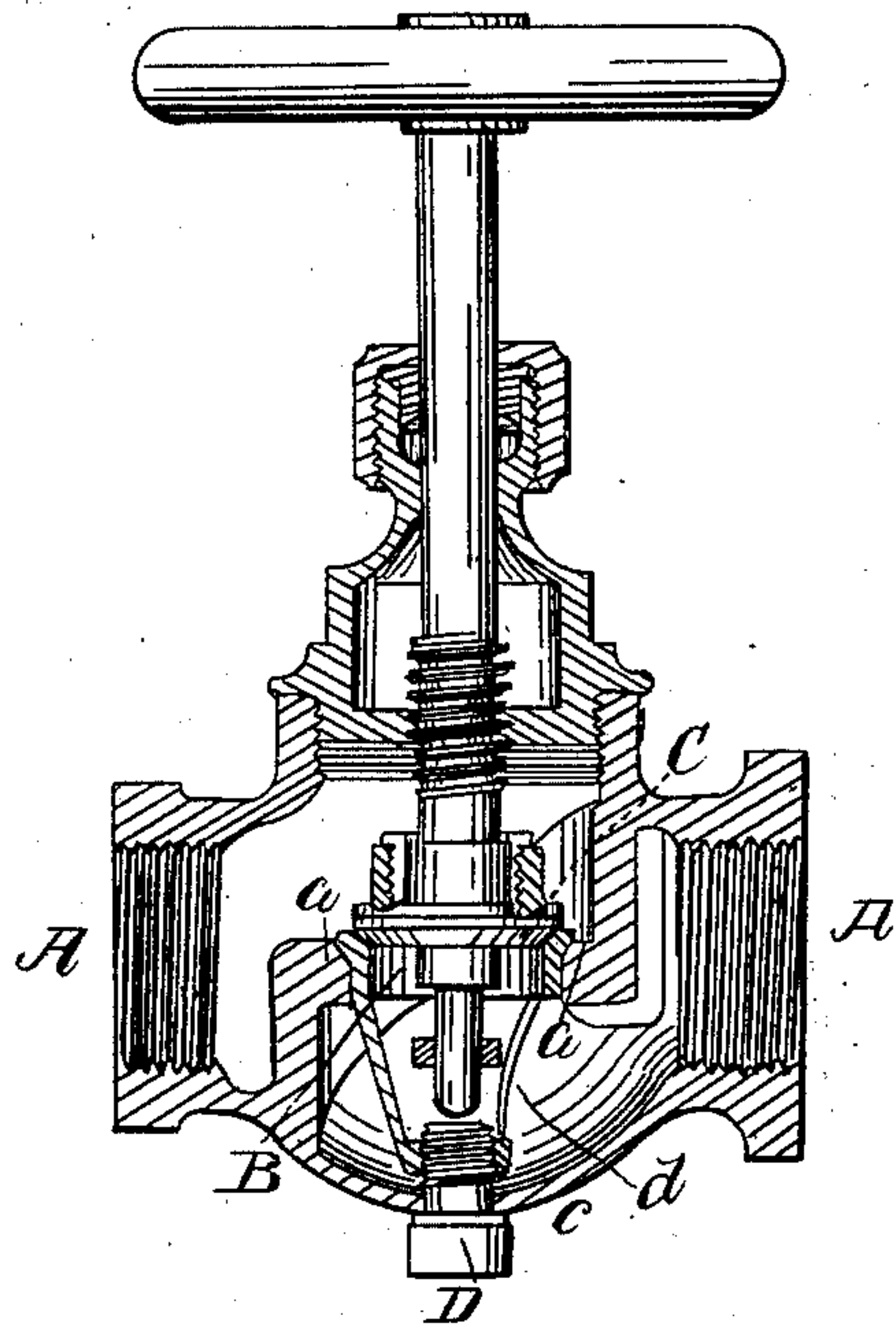


Fig:2.

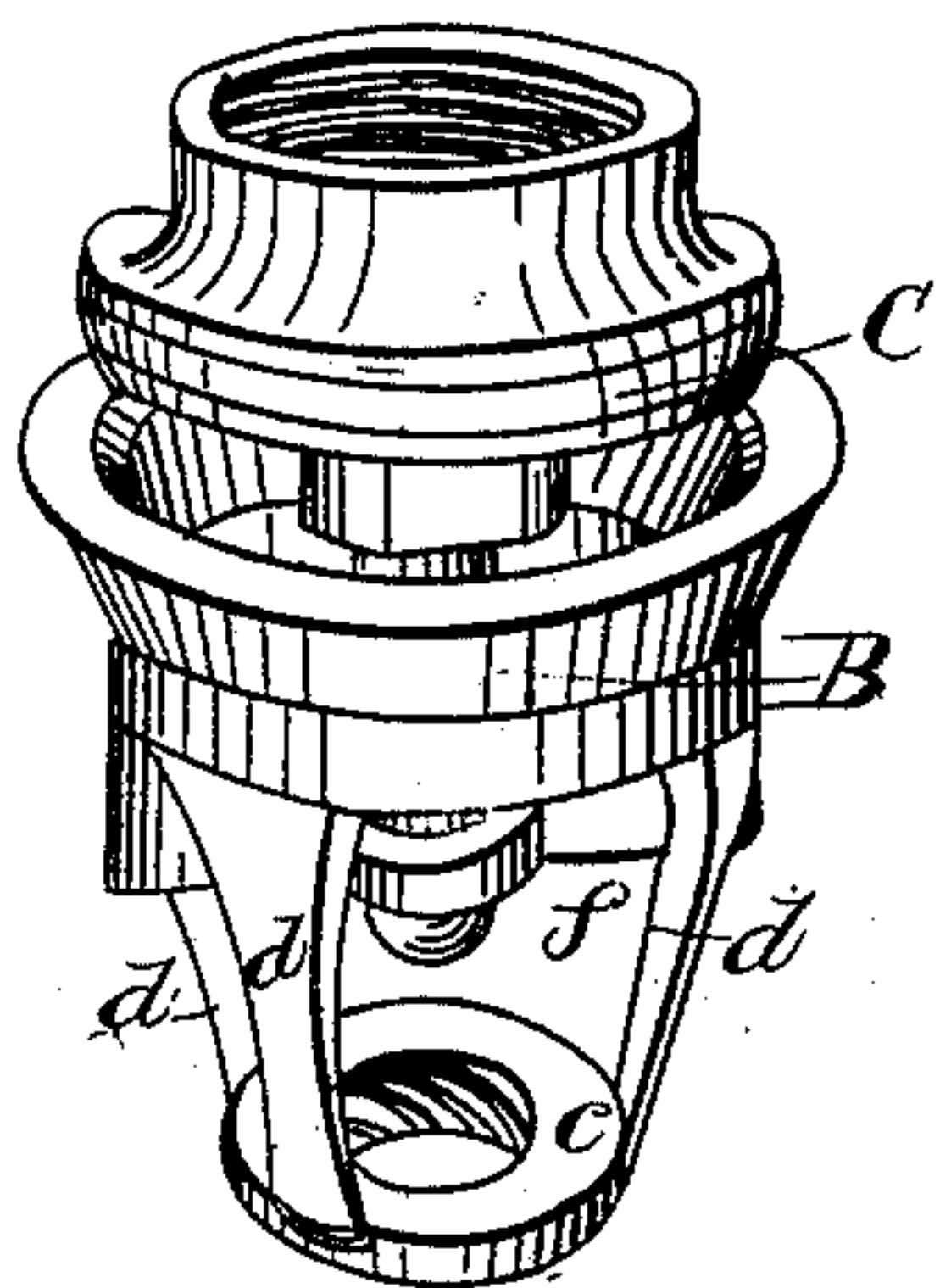
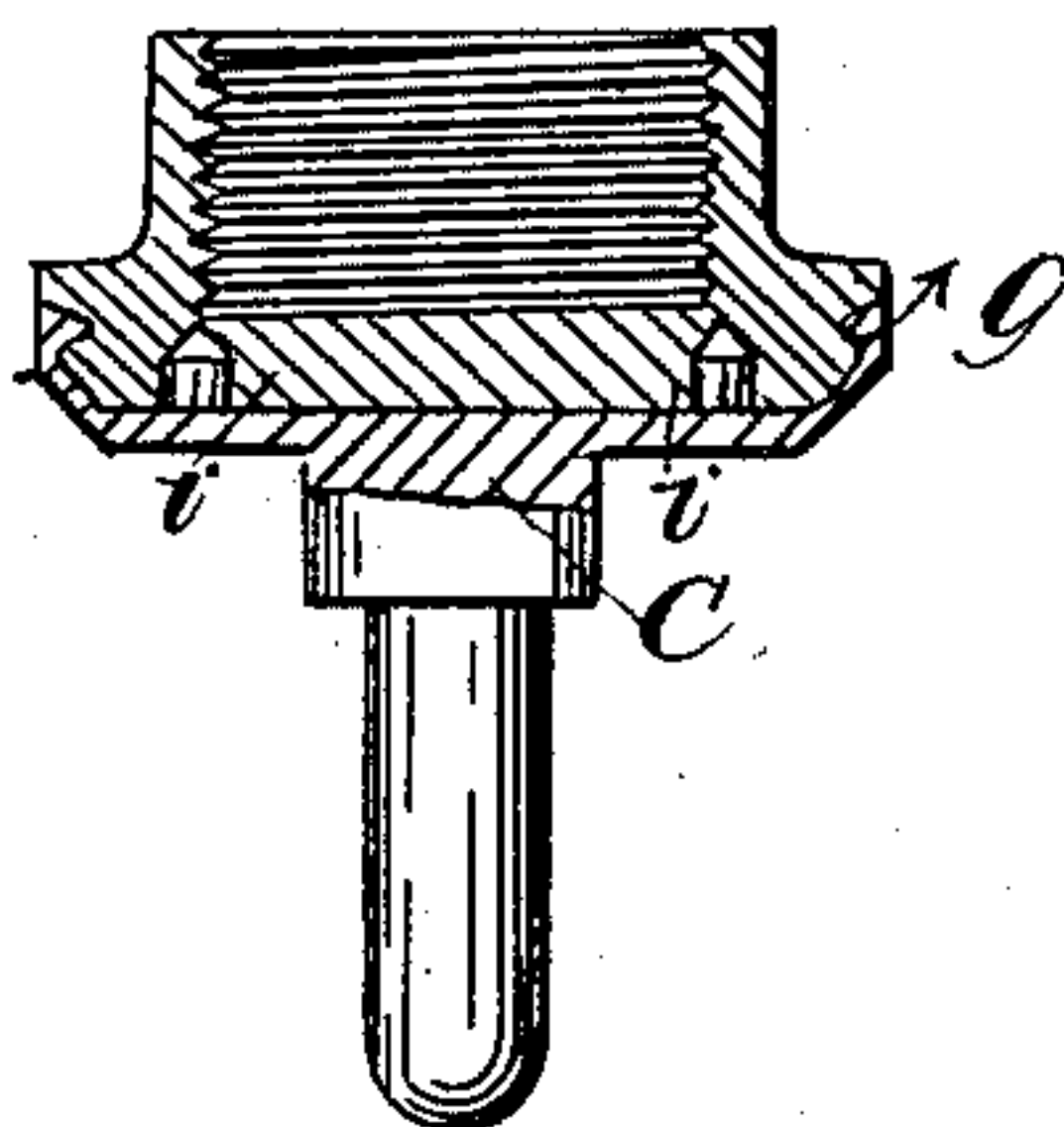


Fig:3.



Witnesses:
James DuBois
John B. Brunson.

Inventor:
William Chesley.

United States Patent Office.

WILLIAM CHESLEY, OF CINCINNATI, OHIO.

Letters Patent No. 82,206, dated September 15, 1868.

IMPROVEMENT IN GLOBE-VALVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM CHESLEY, of Cincinnati, county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Globe-Valves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which—

Figure I is a cross-section.

Figure II is a perspective of the valve-seat.

Figure III is a sectional view of the valve, showing different metals used in its construction.

Similar letters of reference indicate like parts.

The nature of my invention consists in providing a globe-valve with a detachable seat, held in position by a bolt passing up through the bulb of the valve and screwed into the centre of the said seat, drawing it in the direction of the pressure of the valve, which, when screwed down, tends to tighten rather than loosen the seat.

The bolt holding the seat in place enters it in the centre and below the bearing-point, whereby an equal pressure is obtained on every part of its circumference, and keeps the said seat perfectly adjusted, which is cast of brass around and over the end of said iron valve.

In construction, my invention is as follows:

I construct the bulb and ports of a globe-valve in any of the usual forms, as A A, Fig. I, and place therein a detachable seat, B, seen also in Fig. II, its upper edge resting on a projection, *a*, of the bulb A.

C is a valve fitted and ground to the seat B.

At D is a bolt passing up through the bulb, and screwed into the end of the seat, as seen at *b*. A soft metallic washer *c*, placed under the head of the bolt D, makes it steam-tight.

The seat B, Fig. II, is provided with a series of braces, *d d d*, terminating in a disk, *e*, which receives the end of the screw-bolt D. A cross-piece, *f*, is pierced to receive the end of the valve, for which it forms a guide, as seen in Fig. II.

The valve C, Fig. III, is cast of iron, with a groove, *g*, on its periphery, and a series of depressions, *i i i*. The valve is then placed into a suitable mould, in such a manner that brass can be cast over that portion coming in contact with the seat, the brass filling the groove and depressions, as shown in Fig. III. By this means a small proportion of a valve only is made of brass, and the cost materially reduced.

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

1. The bolt D, screwed into the disk *e* of the seat B, and drawing said seat in the direction of the pressure of the valve, as and for the purpose specified.
2. The valve C with groove G, depressions I I, and lining L, of brass or any other suitable material, substantially as and for the purpose described.

WILLIAM CHESLEY.

Witnesses:

JOHN P. BENSON,
JEROME DU BOIS.