

S. H. WHITAKER
GLOBE VALVE.

No. 75,094.

Patented Mar. 3, 1868.

Fig. 1.

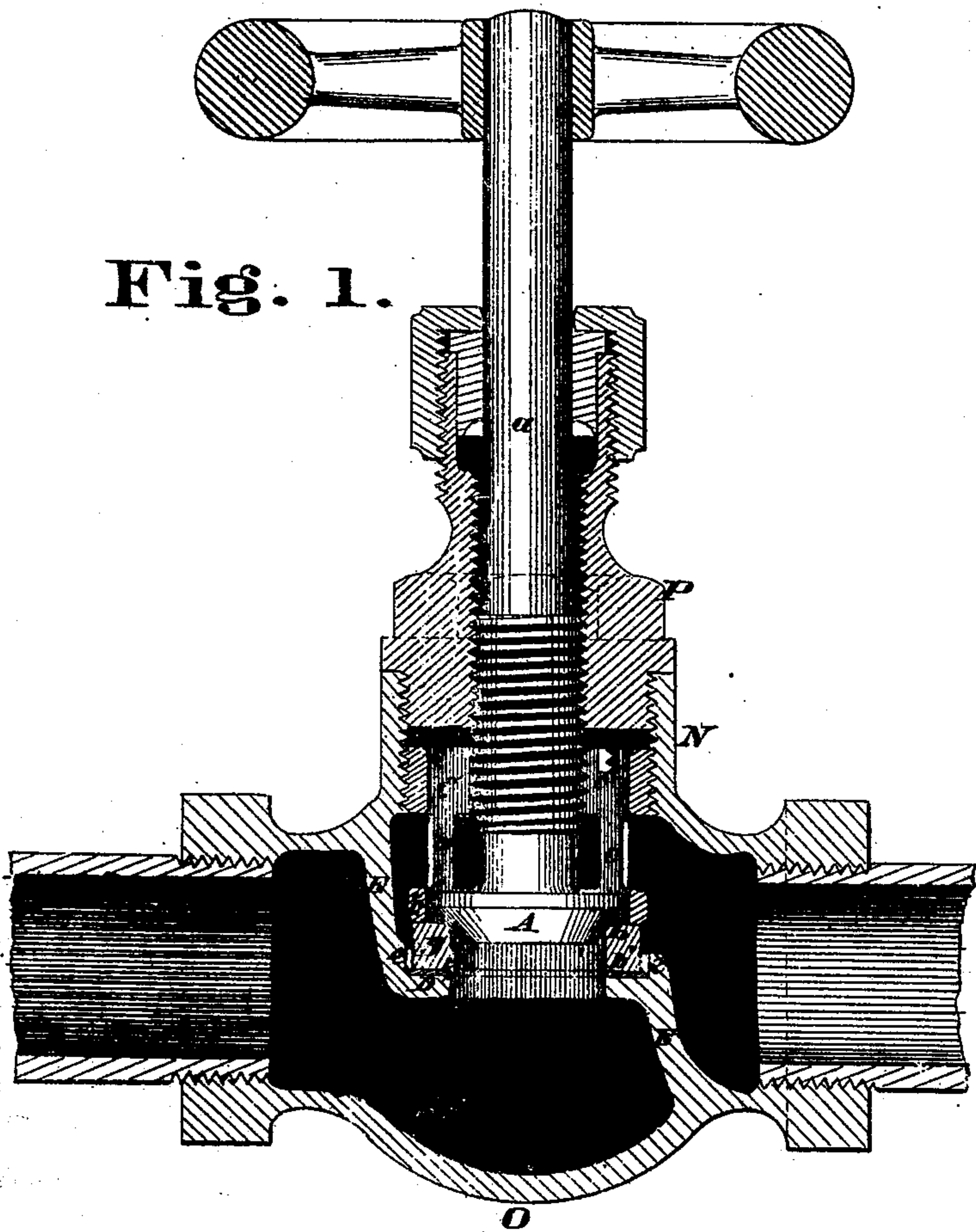
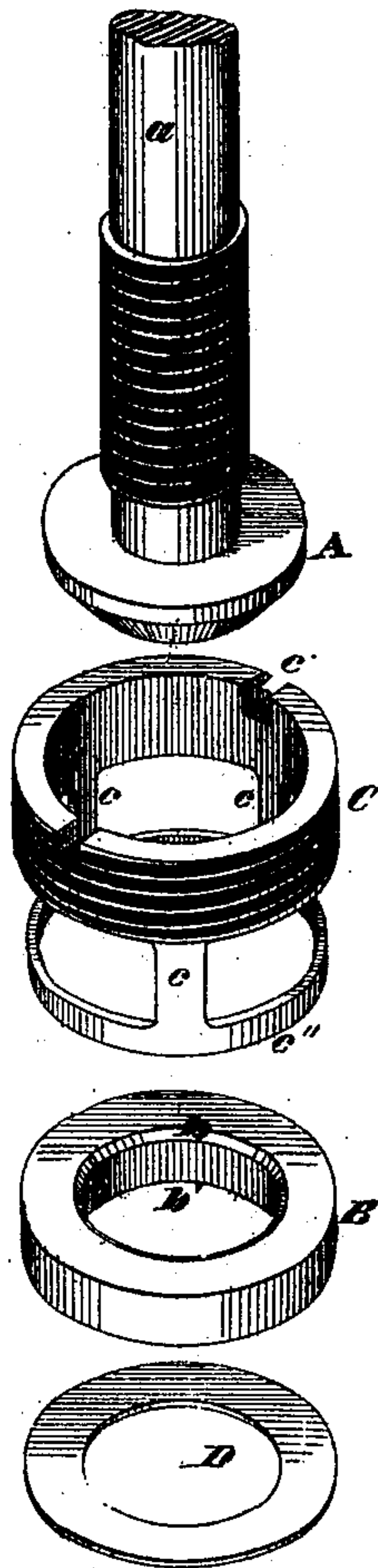


Fig. 2.



Attest,
J. H. Layman
H. K. Pickles

Inventor.
S. H. Whitaker
By Knight Bros
-als

United States Patent Office.

SAMUEL H. WHITAKER, OF CINCINNATI, OHIO.

Letters Patent No. 75,094, dated March 3, 1868.

IMPROVEMENT IN GLOBE-VALVES.

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

TO WHOM IT MAY CONCERN:

Be it known that I, SAMUEL H. WHITAKER, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Valves.

This invention relates to a readily-removable and self-adjusting metallic seat for conical valves, which insures accurate seating of the valve at all times, and enables a renewal of the bearing-surfaces without detaching the chamber or casing.

Figure 1 is an axial section of a "globe"-valve embodying my invention.

Figure 2 shows my valve-seat and its accessories detached.

The neck, N, of the casing O is screw-threaded interiorly, to receive and hold a customary hub, P, which is screw-threaded exteriorly, to fit the neck, and interiorly, to contain the screw-threaded stem, *a*, of a conical valve, A. The diaphragm E is pierced, for the passage of steam or other fluid, but, in place of the usual valve-seat, has a recess or socket for a gasket, D, of copper or other soft and impervious material, and for a metallic annulus, B, which, in the preferred form of my invention, is chamfered on both upper and lower inner edges *b b'*, to constitute valve-seats. The socket *e* is made so much larger than the annular disk B as to permit of a slight lateral play of the latter, to accommodate the valve. The disk B is held down to its place within the socket by means of an exteriorly screw-threaded tube called the clamp, C, having apertures, *c*, for the passage of the fluid, and nicks, *c'*, to receive a screw-driver for attaching and detaching it.

The above arrangement possesses several decided advantages; for example, it is no longer necessary to laboriously grind the valve and seat in line, because, however much they may vary, the closure of the valve operates to bring the seat immediately into line. Should the chamfer *b* wear leaky or uneven, a reversal of the annular disk will present a new and effective seat. Should both seats become worn, the annular disk may be taken out and reground, or replaced by a new one, without disturbing the body or casing. The provision of the gasket D insures a tight joint without elaborate finish of the opposing surfaces of the disk and socket.

Although preferring the double and reversible form described for the self-adjusting disk B, I reserve the right to use the same with a single chamfer.

I claim herein as new, and of my invention—

1. The self-adjusting metallic valve-seat B, in combination with a conical valve, A, substantially as and for the purposes set forth.
2. In combination with the aforesaid movable valve-seat B, applied and operating as described, I further claim the compressible packing-ring D, for the purpose set forth.
3. I also claim the combination of the movable seat B and screw-clamp C, substantially as and for the purposes set forth.

In testimony of which invention, I hereunto set my hand.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.

SAM'L H. WHITAKER.