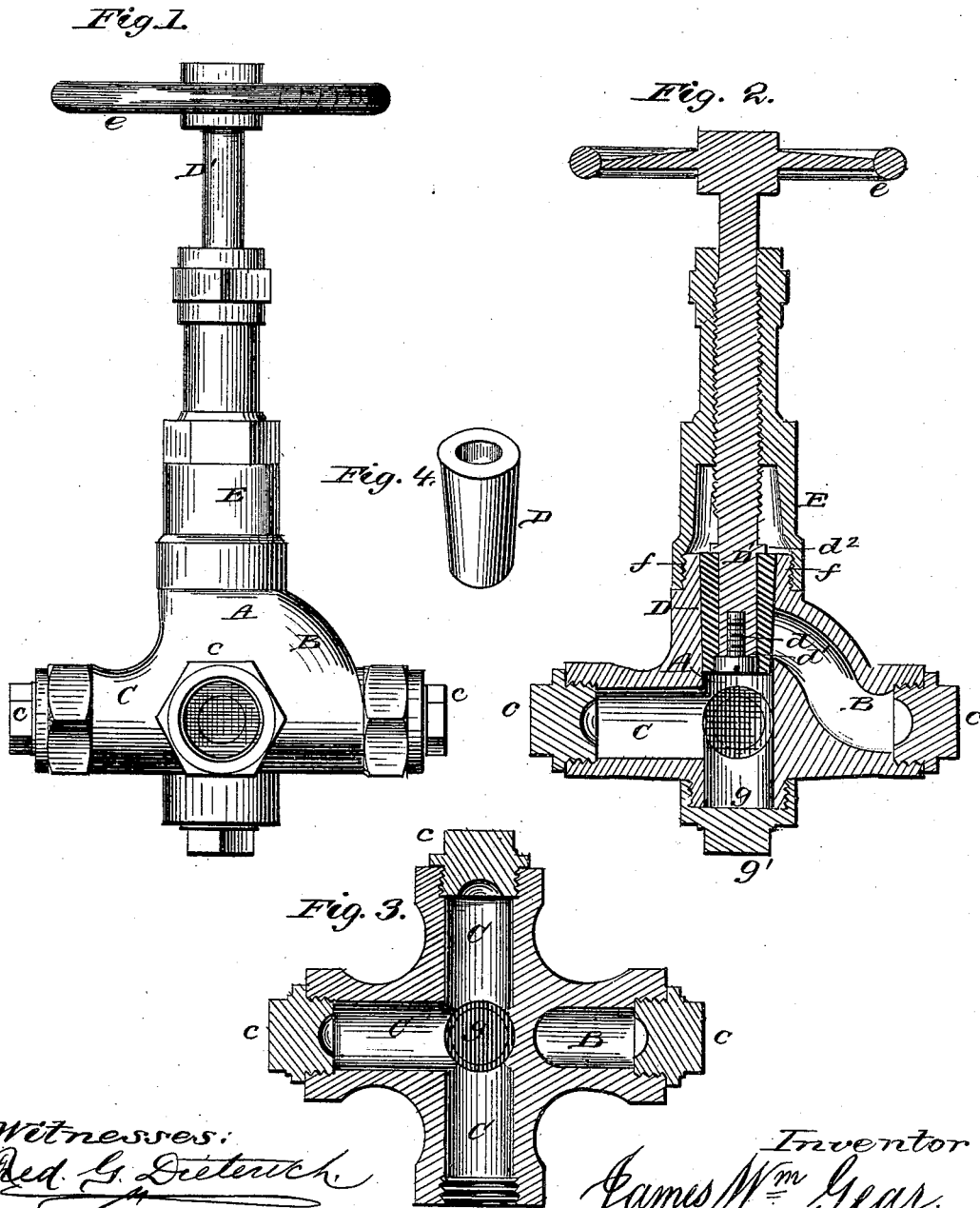


J. W. GEAR.
Valve.

No. 211,727.

Patented Jan. 28, 1879.



Witnesses:
Ad. G. Dieterich
George Pinkenburg

Inventor
James W^m Gear
by *Louis Baggett Co.*
his Attorneys.

UNITED STATES PATENT OFFICE.

JAMES W. GEAR, OF HAVERHILL, MASS., ASSIGNOR TO BENJAMIN N. STUART, CHAS. J. STUART, AND GEORGE A. TUXBURY.

IMPROVEMENT IN VALVES.

Specification forming part of Letters Patent No. 211,727, dated January 28, 1879; application filed December 19, 1878.

To all whom it may concern:

Be it known that I, JAMES WM. GEAR, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Valves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved valve. Fig. 2 is a sectional view through the same. Fig. 3 is a horizontal section thereof, and Fig. 4 is a detailed view of the valve proper or plug.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to certain improvements in steam valves, which are also applicable for use in connection with gas and water or other liquid and fluid conducting pipes; and it consists in the combination, with a valve-chamber extending vertically above the several outlets, and provided with an upwardly-inclined inlet, of a removable conical stopper-sleeve affixed upon the lower part of the valve-stem, which is provided with an annular shoulder and a headed screw, between which the said stopper-sleeve is affixed, substantially as hereinafter more fully set forth.

In the accompanying drawings, A refers to the valve-chamber, tapering in vertical section, to enable the seating of its correspondingly-shaped valve, which will be referred to more particularly hereinafter.

Communicating with this chamber are four or a less number of passages, one, B, being the inlet for steam, &c., and the others, C C, being outlets therefor, each of which may be provided with a cap or plug, *e*, as shown, to permit of the opening and closing of any one or two of said outlets. The inlet-passage B extends upwardly and opens into the chamber A at a point above the two or three way outlet-passages C C. This arrangement avoids

the necessity of having to close all the ports, as would be required were they all in the same horizontal plane, in order to cut off the flow of steam or other fluid or liquid.

D is the valve proper, which consists of a conoidal tubular plug, and fitted to its seat in the tapering valve-chamber A. This plug or valve proper is fitted upon and secured to the lower end of the stem D' by a headed screw, *d*, screwing into a threaded socket in the said end of the stem D', and having its head fitting upon an annular shoulder, *d*¹, in a socket in the same end of the plug or valve, the upper end of the plug or valve bearing against a similar shoulder or flange, *d*², upon the stem D'. This forms a loosely-fitting and independently-movable valve or plug, rendering it more easily adjusted to its seat, and enabling it to cover the port of the inlet-passage more effectually.

The stem D', which is provided with a hand-wheel, *e*, for its convenient operation, is connected to the case of the chamber A by a sleeve or coupling, E, screwed upon a screw-threaded nozzle, *f*, of said case.

In the bottom of the chamber A is a sediment-chamber, *g*, having a removable cap or plug, *g*', to permit of the emptying of said sediment, scales, &c.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

The improved valve herein shown and described, composed of the chamber A, having inlet B and outlets C C C, arranged as set forth, in combination with the screw-threaded valve-stem D', having annular shoulder *d*², headed screw *d*, and removable conical sleeve D, substantially as specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JAMES WILLIAM GEAR.

Witnesses:

JOHN A. GLINES,
CHAS. J. STUART.