S. J. Peet,

Stop Cock.

No. 99,944. Patented Feb. 15. 1870.

Fig: 1.

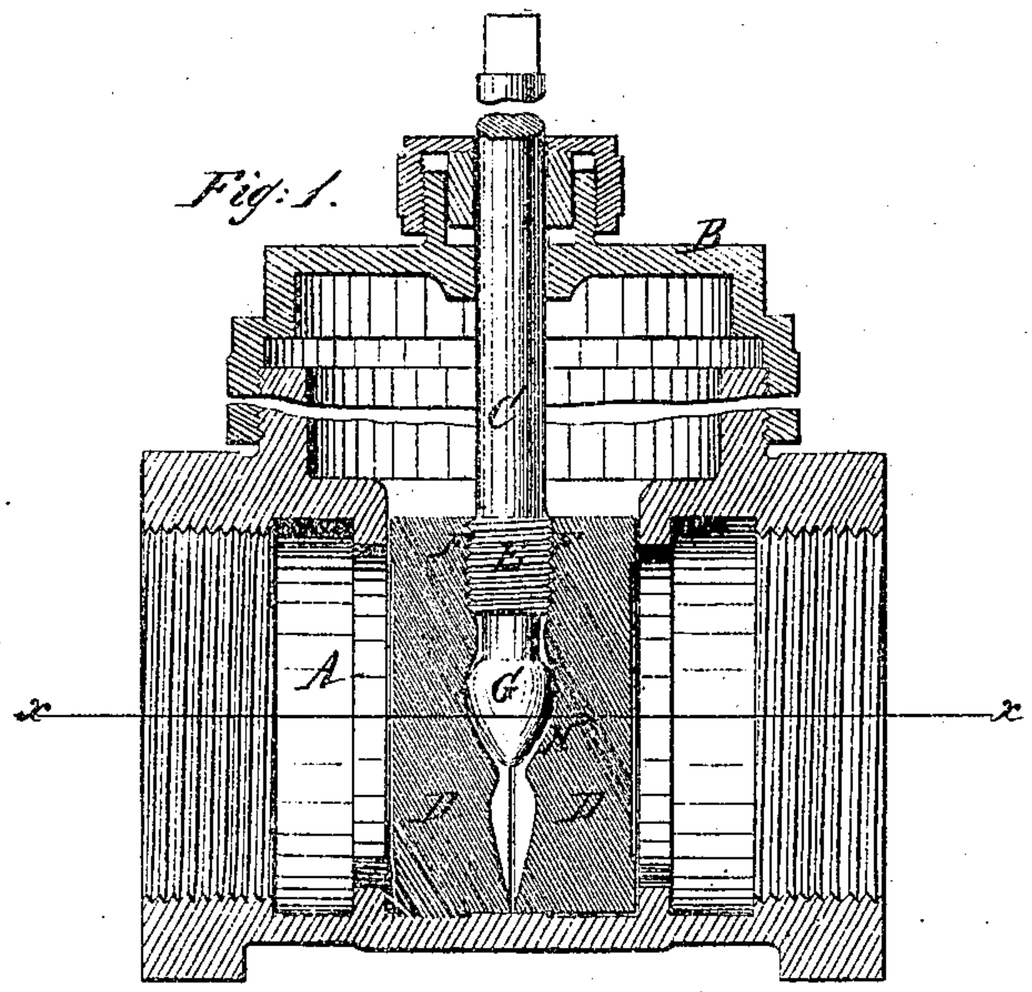

Fig: 2.

Witnesses.

E. F. Kastenhuber

L Wahler

Inventor.

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By VanSantvoord & Hauff

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United States Patent Office.

S. J. PEET, OF NEW YORK, N. Y.

Letters Patent No. 99,944, *dated February* 15, 1870.

IMPROVEMENT IN STOP-VALVES FOR STEAM AND OTHER ENGINERY.

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, S. J. PEET, of the city, county, and State of New York, have invented a new and useful Improvement in Valves; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a central longitudinal section of a valve made according to my invention.

Figure 2 is a cross-section in the line *x x* of fig. 1.

Similar letters indicate corresponding parts.

This invention relates to valves made in divisions, whose separation and contraction closes and opens the valve-openings, as described in my Letters Patent dated January 1, 1867.

My improvement herein described, consists—

First, in connecting the stem to the valve by means of screw-threads formed respectively on the stem and on the divisions of the valve, in such a manner that, by turning the stem, the wedge or cone which operates to push the divisions of the valve apart, is moved in the valve, so as to force the divisions asunder, or to let them come together, according to the direction in which the stem is turned.

It consists further in an arrangement of parts, whereby the stem of the valve is allowed to slide freely up or down through the cap of the shell which contains the valve, so that when the valve is not expanded, it can be moved up or down in the shell by sliding the stem out or in.

It consists further in holding the valve to the stem by means of wings formed along the adjacent edges of the divisions, and by grooves formed in the sides of the shell, the wings being confined in the grooves in such a manner as to hold the divisions of the valve and the stem to each other, and also to cause the faces of the valve to be carried away from the valve-seats when the valve is drawn upward, thereby avoiding friction and preventing the wear of those parts. The sides of the grooves are slightly opened and reduced at their lower ends, to allow the divisions or disks of the valve when they reach the bottom of the shell, to open toward the valve-seats.

By means of the wings and their guiding grooves, the valve is guided accurately to its seats without its divisions or disks being allowed to drop off sidewise.

The letter A designates the shell of the valve, which may be made of brass, iron, or other suitable material, of the shape of an inverted T, the ends being intended to connect with the pipes with which the valve is to be attached, the central part being closed by the usual cap B, through which the valve-stem passes, and the neck of the cap being provided with a stuffing box, through which the stem is free to slide.

The letter C designates the valve-stem, which is made smooth at its upper part, which is to move through the cap, so as to allow it to slide as above stated.

The valve proper is composed of two plates or disks, D D, whose general construction and operation is similar to those described in my said patent. A tapering or conical cavity, H, being formed therein to receive the wedge or cone-shaped end G of the stem, whose advance against the sides of the cavity H, causes the valve to be spread apart, and its divisions or disks D D to be brought against the valve-seats.

That part of the stem which is within the valve, and next above the wedge or cone G, is provided with a screw-thread, E, which engages screw-threads F, cut in the backs of the disks D D, so that the stem and valve remain connected to each other by means of the screw-connections, so long as the disks are kept together or up to the stem, and the valve, consequently, when not expanded by the wedge G, is always free to move up and down with the stem when the latter is made to slide in the cap.

When the stem is pushed down, and the valve reaches the bottom of the shell A, by turning the stem on its screw-thread, its wedge G is pushed against the narrow sides of the cavity H, and the faces of the disks D D of the valve are brought up against the valve-seats.

In order to open the valve, the stem must first be turned in the reverse direction, when the disks are allowed to recede from the valve-seats, and the valve can then be raised by sliding the stem; but so long as the valve remains in its expanded condition, the stem is prevented from having longitudinal motion, but remains locked as well as the valve.

The valve is held to the stem and is guided in its vertical movements by means of grooves I I in the sides of the shell, and wings J J formed on the adjacent edges of the disks D, as shown in the drawing, the wings being kept together by the sides of the groove, so as to insure that the disk will not fall off sideways from the stem, or from each other during their vertical movements, and so as to prevent wear by friction between the faces of the disks and the valve-seats.

The lower parts of the sides K K of the grooves are slightly opened or cut down, so as to allow the valve to open when it reaches the bottom of the shell.

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

1. Connecting the stem C and divided valve D D to each other, by means of screw-threads formed thereon, and arranged substantially as shown and described.

2. Arranging the stem C in the valve-shell, in such a manner that it can slide up and down therein when the valve D D is slackened, and remains locked when the valve is expanded, substantially as described.

3. The wings J J, on the divided valve D D, in combination with the grooves I I in the shell, substantially as set forth.

This specification signed by me this 17th day of June, 1869.

S. J. PEET.

Witnesses:

C. BONSOR,

W. H. WATSON.