H. J. McMAHON.

Combined Globe Valves and Traps.

No. 136,746. Patented March 11, 1873.

FIG. 1.

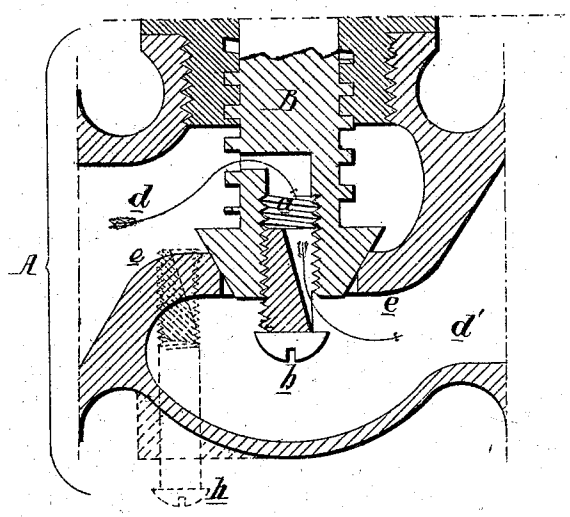
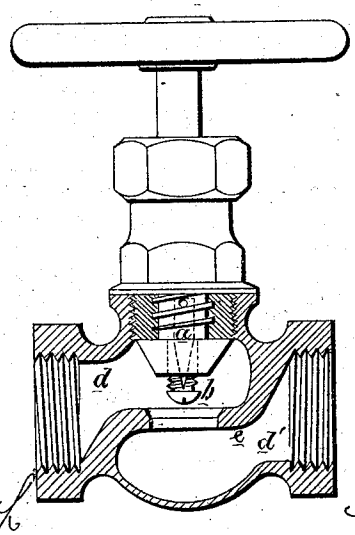


FIG. 2.



Witnesses,
Harry Smith
Thomas McIlvain

Hugh J. McMahon
by his Attys.
Howson and Son

UNITED STATES PATENT OFFICE.

HUGH J. McMAHON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COMBINED GLOBE-VALVES AND TRAPS.

Specification forming part of Letters Patent No. **136,746**, dated March 11, 1873.

To all whom it may concern:

Be it known that I, HUGH J. McMAHON, of Philadelphia, county of Philadelphia and State of Pennsylvania, have invented an Improvement in Waste Cocks for Steam-Heating Apparatus, of which the following is a specification:

The object of my invention is to prevent the accumulation of water of condensation in steam-heating pipes, and to prevent the disagreeable noises which result from such accumulation of water.

This object I attain by making, through the valve B of the waste-cock A of a system of steam-heating pipes, a passage, *a*, the area of which can be so regulated by a set-screw, *b*, or its equivalent, as to afford a sufficient outlet, when the valve is closed, for the water of condensation without permitting the steam to escape.

It is usual in heating buildings with steam to employ, in connection with each system of coils, two cocks, one for regulating the admission of steam to, and the other for regulating its escape from the coil, the latter being generally termed a waste-cock, a vertical section of which is shown in Figure 1, and on a smaller scale in Fig. 2.

This cock is of the usual construction, the casing inclosing an inlet-chamber, *d*, and outlet-chamber *d'*, separated from each other by a partition, *e*, having an opening, on the edge of which is formed a seat for the valve B. A passage, *a*, is made in this valve, the passage being continued through an inclined groove formed in a set-screw, *b*, by adjusting which in the end of the valve B the outlet of the passage may be enlarged or diminished at pleasure, and the screw is always so regulated that while the water of condensation can be gradually forced by the steam through the passage from the inlet to the outlet chamber, the water itself presents an obstruction to the escape of steam; thus the accumulation of water in the system of pipes, and the disagreeable jars caused by such accumulation, are obviated.

I prefer the making of the escape-passage in the valve B, and regulating the outlet of the passage by means of a grooved set-screw, in the manner described; but the same result will be attained by making an opening in the partition *e*, and adapting to that opening a screw-rod, *h*, having an inclined groove, and passing through the casing, as shown by dotted lines in Fig. 1; in fact any communication between the inlet and outlet chambers of the cock, the area of which can be readily increased or diminished, will serve the desired purpose.

I claim as my invention—

The combination, with the waste-cock, of a passage between the inlet and outlet chambers and a grooved screw, *b*, or its equivalent, for regulating the area of the said passage.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HUGH J. McMAHON.

Witnesses:

WM. A. STEEL,

JOHN K. RUPERTUS.