T. J. NOTTINGHAM.

WATER-GAGES.

No. 183,200. Patented Oct. 10, 1876.

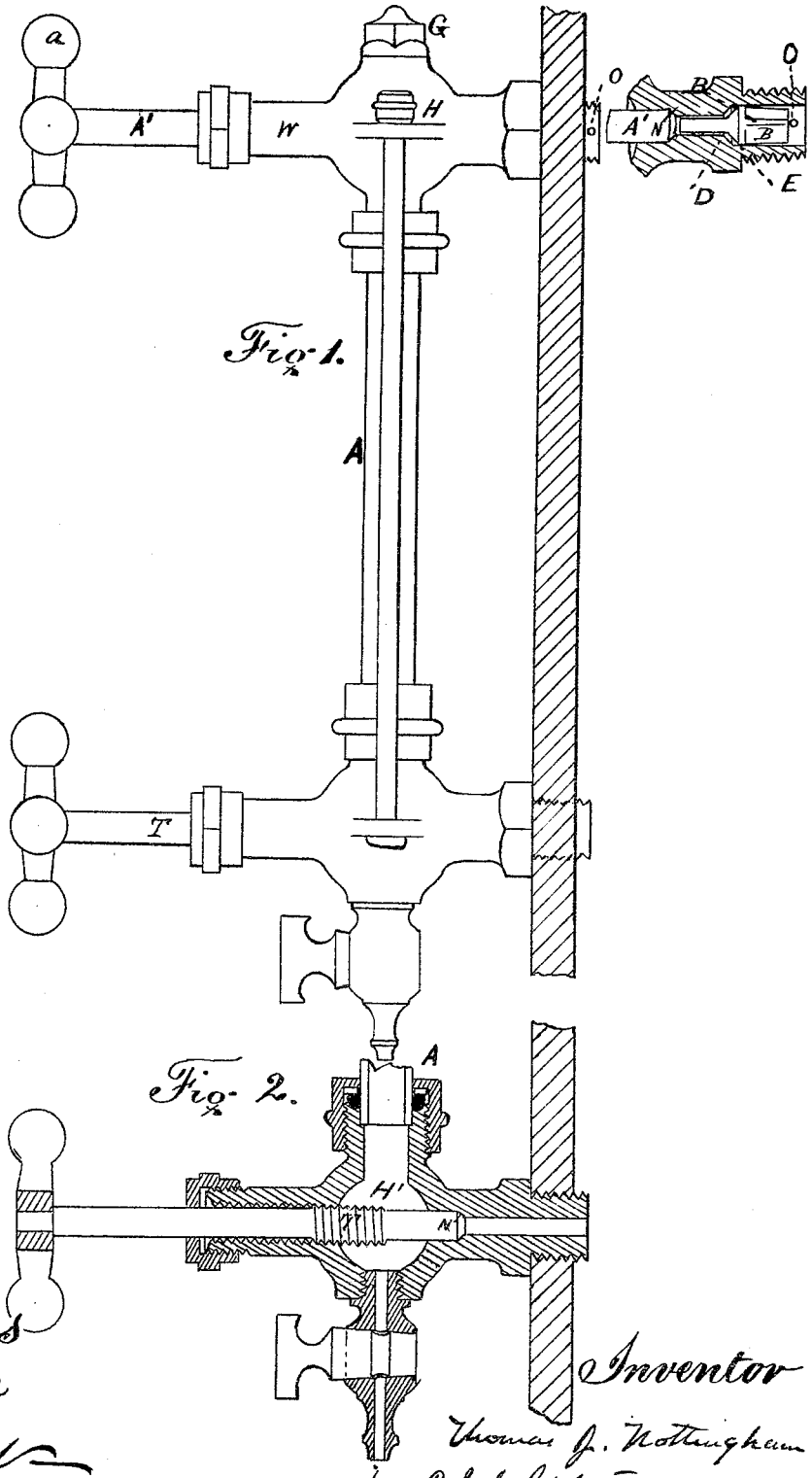

Fig. 1.

Fig. 2.

Witnesses
B. C. Pole
A. H. Parris

Inventor
Thomas J. Nottingham
by C. A. Whitman
Attorney

UNITED STATES PATENT OFFICE.

THOMAS J. NOTTINGHAM, OF CINCINNATI, OHIO.

IMPROVEMENT IN WATER-GAGES.

Specification forming part of Letters Patent No. **183,200**, dated October 10, 1876; application filed January 19, 1875.

To all whom it may concern:

Be it known that I, THOMAS J. NOTTINGHAM, of Cincinnati, county of Hamilton, and State of Ohio, have invented an Improved Water-Gage.

The following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new, and are desired to be secured by Letters Patent of the United States.

My invention relates to that class of instruments which are made use of for measuring or ascertaining the depth or quantity of water, as in the boiler of a steam-engine, which are commonly known as "water-gages;" and the nature thereof consists in certain improvements in the construction of the same, hereinafter shown and described.

In the accompanying plate of drawings, in which corresponding parts are designated by similar letters, Figure 1 is a side elevation of the improved water-gage. Fig. 2 is a longitudinal section.

In said drawings, A designates a glass tube fitted between two chambers, the lower one of which is in connection with the water, and the upper one with the steam-space of the boiler. The level of the water is indicated in the tube. B designates a valve, arranged within the receptacle E in such a manner that the pressure of the steam in the boiler will force the same against the valve-seat D. The valve B is prevented from being pushed into the boiler by the pin *o* at the end of said receptacle. A′ designates a stem or screw, by means of which the valve B may be forced inward from its seat in such a manner as to allow the steam to pass out into the chamber H.

A V-thread is cut upon the stem A′, which engages with a corresponding thread cut upon the interior surface of the tubular projection W. When the handle *a* is turned in the proper direction, the inner end of the said stem is brought into contact with the outer end of the valve, and the same is forced inward from the valve-seat D, in such a manner as to allow the steam to pass outward about the exterior surfaces of said valve and said stem to the chamber H.

The flow of water into the lower chamber H′ may at any time be stopped with facility by forcing the inner end of the screw T against the seat N.

Should the tube A become broken while steam is up, the screw-stem A′, having been withdrawn, permits the valve B to shut off the steam from the boiler, and the flow of water is stopped by forcing the screw T against the valve-seat N′. The broken tube may then be removed and a new tube inserted through an opening in the top of the chamber H, which may be afterward closed by the screw-plug G.

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

The combination of the threaded valve-stem A′, operating an automatic valve, B, from its end, the valve B, the frustum-shaped valve-seat D, the chamber H, and the pin C, all substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of January, 1875.

THOS. J. NOTTINGHAM.

Witnesses:

J. L. WARTMANN,

WM. H. SCHLATER.