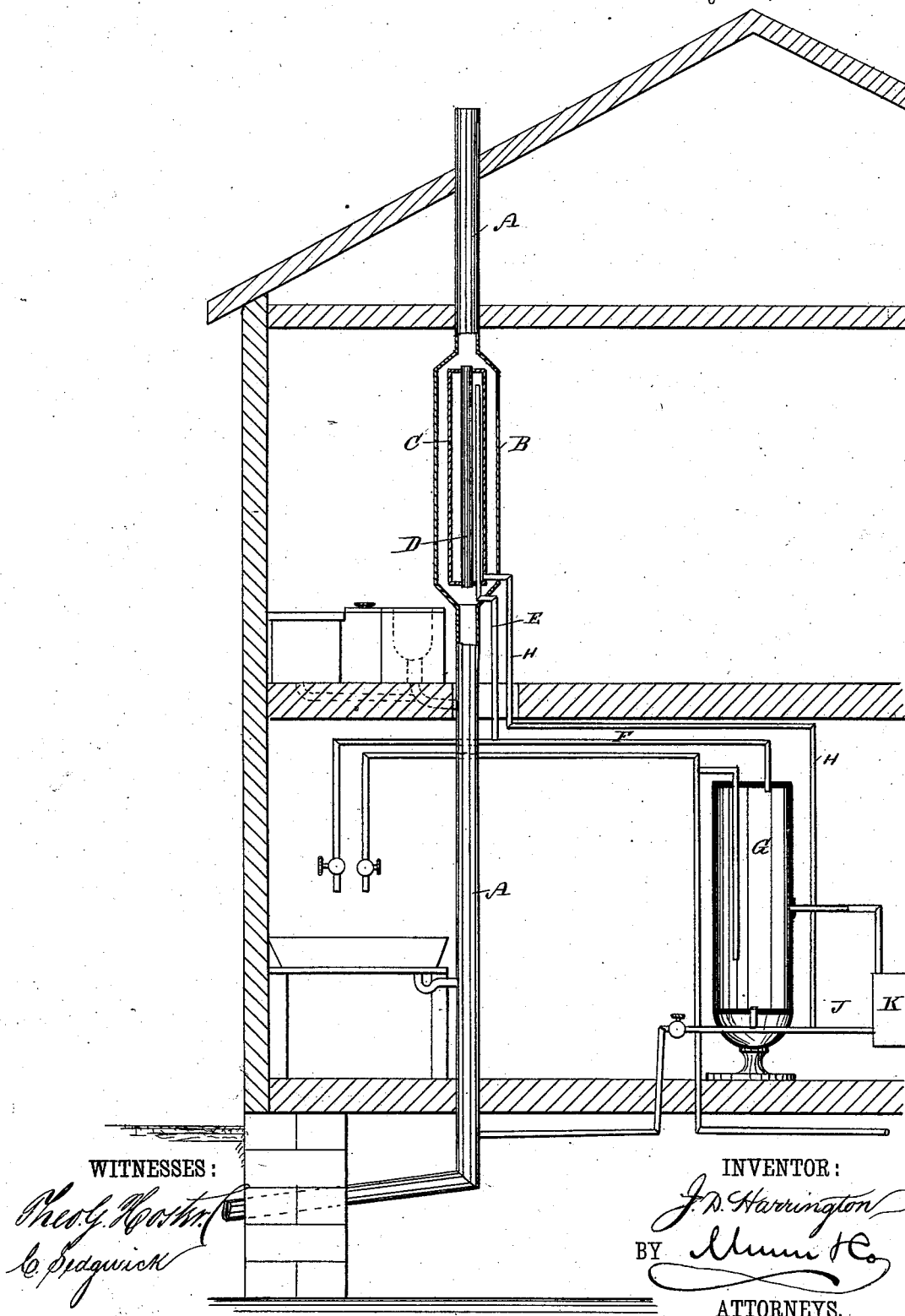


(No Model.)

J. D. HARRINGTON.  
DEVICE FOR VENTILATING SOIL PIPES.

No. 261,451.

Patented July 18, 1882.



# UNITED STATES PATENT OFFICE.

JOHN D. HARRINGTON, OF AUBURN, NEW YORK.

## DEVICE FOR VENTILATING SOIL-PIPES.

SPECIFICATION forming part of Letters Patent No. 261,451, dated July 18, 1882.

Application filed March 9, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. HARRINGTON, of Auburn, in the county of Cayuga and State of New York, have invented a new and improved Device for Ventilating Soil-Pipes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for creating a draft in soil-pipes for carrying off the foul gases.

The invention consists in a vessel adapted to contain hot water and located in the soil-pipe or other ventilating-pipe, whereby the hot water will heat the air and will cause a draft in this pipe.

The invention further consists in a tube passing longitudinally through the hot-water vessel, whereby a draft will be created on the outside and inside of the hot-water vessel.

Reference is to be had to the accompanying drawing, forming part of this specification, in which a cross-sectional elevation of a house provided with my improved device for ventilating soil-pipes is shown.

The soil-pipe A is provided with an enlargement, B, containing a cylindrical vessel, C, closed at the top and bottom, and containing a tube, D, extending longitudinally through the vessel, the ends of this tube being open, so that a current of air can pass through this tube D.

A pipe, E, extends from the hot-water pipe F up through the bottom of the vessel C, near to the top of the same. This pipe F is connected with the boiler G, so that hot water can pass from the boiler G through the pipes F and E into the vessel C. An outlet-pipe, H, runs from the bottom of the vessel C to the water-heating pipe J, which runs from the boiler through the water-back K in the range or stove.

The upper end of the soil-pipe A projects from the roof of the building.

The boiler G is of the usual construction, and is provided with the usual feed-pipes, outlets, &c.

The enlargement B and the vessel C can be made circular, square, or oblong in cross-section, as the circumstances may require; but in all cases the tube D must be so arranged that the air can pass through it.

The operation is as follows: The hot water passes from the boiler G through the pipes F

and E into the vessel C, and thus heats the sides of the same and the tube D, which in turn heat the air surrounding the same, thereby causing a draft in the soil-pipe A, which draft carries off all the foul gases in the soil-pipe, the gases passing up on the sides of the vessel C and through the tube D. As the water in the vessel C cools off it sinks to the bottom and flows through the pipes H and J, through the water-back K into the boiler, and in this manner a continual circulation of hot water is maintained in the vessel, and consequently a continual draft is maintained in the soil-pipe.

The herein-described device can be used to create a draft in any ventilating-pipe.

The vessel C and the enlargement B can be made larger or smaller, as circumstances may require.

If desired, the tube D can be dispensed with and the vessel C used only; but the construction shown is preferred.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a ventilating-pipe, of a hot-water vessel located in the said pipe and adapted to permit of the passage of the gases through and around the same, substantially as and for the purpose set forth.

2. The combination, with the pipe A, provided with an enlargement, B, of the vessel C, adapted to contain hot water, and located in the enlargement B, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the pipe A, provided with an enlargement, B, of the vessel C, adapted to contain hot water, and provided with a tube, D, extending longitudinally through it, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with the pipe A, of the vessel C, adapted to contain hot water, the inlet-tube E, extending to the top of the vessel C, the outlet-tube H, and the boiler G, substantially as herein shown and described, and for the purpose set forth.

JOHN DANUAL HARRINGTON.

Witnesses:

OSCAR F. GUNZ,  
C. SEDGWICK.