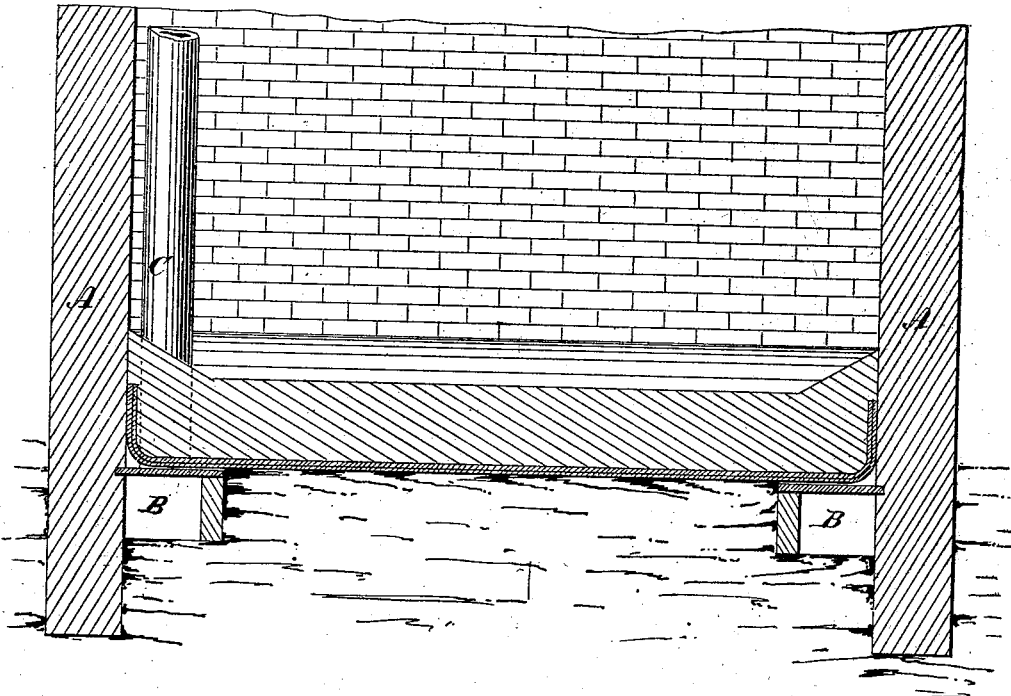


T. NEW.  
Vent for Gases under Cellar-Bottoms.  
No. 196,376. Patented Oct. 23, 1877.



WITNESSES:

*Chas. Nida*  
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*T. New*  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

TOBIAS NEW, OF NEW YORK, N. Y.

## IMPROVEMENT IN VENTS FOR GASES UNDER CELLAR-BOTTOMS.

Specification forming part of Letters Patent No. **196,376**, dated October 23, 1877; application filed August 11, 1877.

*To all whom it may concern:*

Be it known that I, TOBIAS NEW, of the city, county, and State of New York, have invented a new and Improved Ventilator for Cellar-Bottoms, of which the following is a specification:

Cellar-bottoms as ordinarily constructed consist of a layer of brick or broken stone surmounted by a bed of hydraulic cement. Such bottoms, while serviceable and apparently cleanly, are porous, and therefore easily permeated by the noxious gases exhaled by the earth. This serious defect is more noticeable and dangerous in some localities than in others—for example, upon "made ground," which contains a considerable quantity of decaying organic matter, and in localities where the rise and fall of tide-water effects the expulsion of poisonous gases and vitiated air from the soil. When such bottoms are laid upon a surface which is impervious to gas or air, the upward pressure occasioned by the displacement of gas and air by the rise of water in the soil, or by the accumulation of gas, is sufficient to crack and injure the cellar-bottom, or to cause its upheaval.

To remedy these difficulties is the object of my present invention, which consists in constructing a passage under the cellar-bottom, inside of and near the base of the cellar-wall, and providing an escape-pipe, which extends upward above the roof, or is connected with the soil-pipe, with an intervening inverted siphon, to prevent the entrance of water into the escape-pipe.

Referring to the drawing, which is a vertical transverse section of a cellar containing my improvement, A A are the cellar-walls, along the inner side of which a channel, B, is formed in the earth, below the level of the cellar-bottom. This channel may be inclosed by a slight loosely-constructed wall and a cover-

ing of slate, or it may be filled with broken stone; or ordinary drain-tiling may be laid therein, with the joints sufficiently open to admit gas or air. The passage thus formed under the cellar-bottom is provided with an escape-pipe, C, which may be simply an iron or lead pipe of small diameter. Above this passage a water and air tight bottom is constructed, by placing upon the ground, and against the cellar-wall, alternate layers of felt saturated in bitumen and asphaltic cement, and placing over the foundation thus formed a protecting layer of artificial stone or other indestructible material.

The gas or air which would otherwise accumulate under the bottom, or, in case of the usual cement bottom, would pass upward into the cellar, is, by means of my improved device, conducted by the passage B to the pipe C, by which it is conveyed to the roof or delivered to the soil-pipe.

In the case of a very large cellar, transverse passages similar to the passage B may be formed under the bottom and connected with the escape-pipe.

By means of this improvement cellars are freed from noxious gas, and are rendered tenable and healthy.

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

A passage formed under the cellar-bottom, inside of and near the base of the cellar-wall, and provided with a pipe for the escape of gas or air, substantially as herein shown and described.

TOBIAS NEW.

Witnesses:

C. SEDGWICK,  
ALEX. F. ROBERTS.