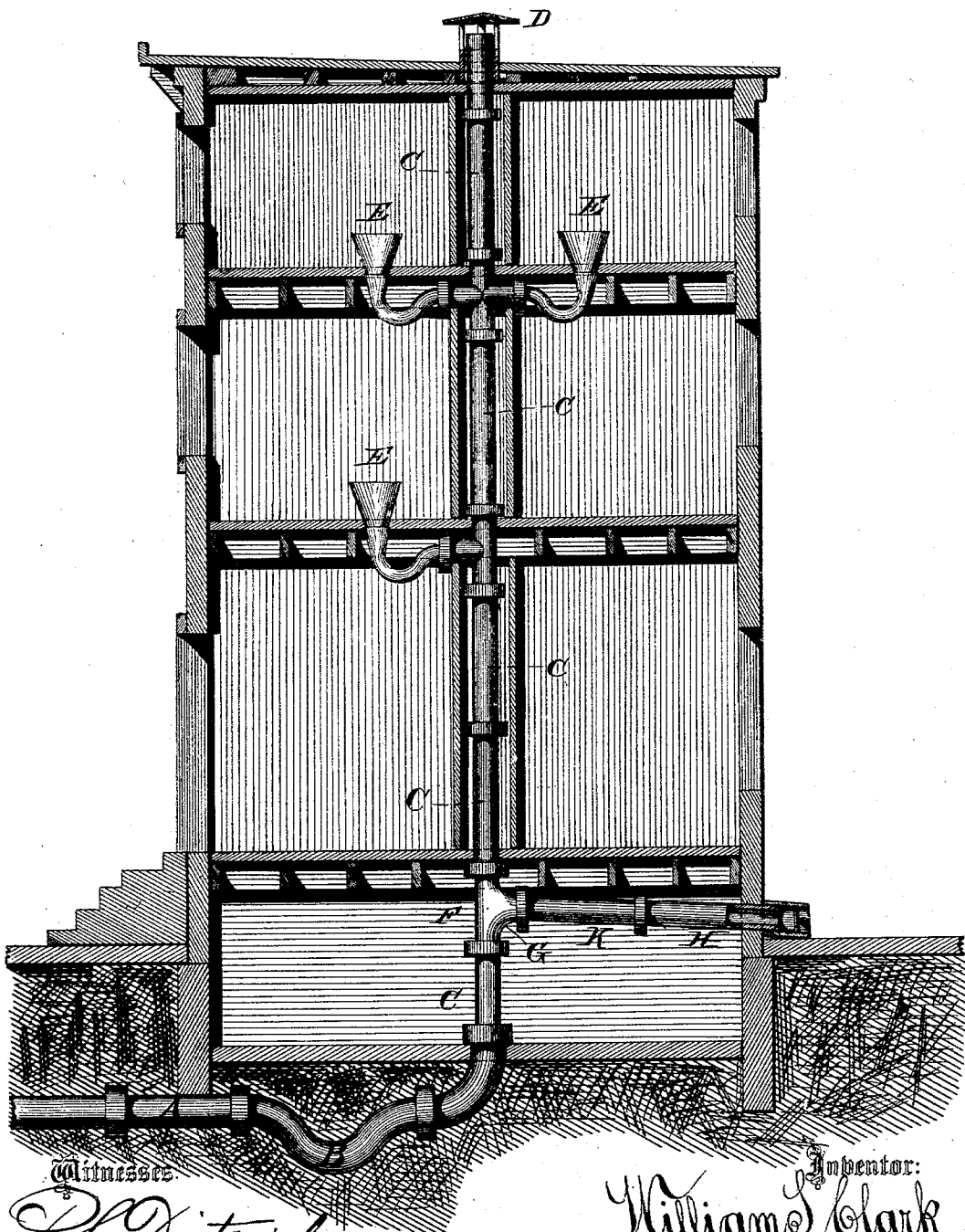


W. S. CLARK.
 Ventilator and Overflow for Sewer-Pipes.
 No. 210,916. Patented Dec. 17, 1878.



Witnesses:
H. Dietrich.
Wm. H. Duffey

Inventor:
William S. Clark.
 Per *Shyall & Kegan* Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM S. CLARK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF HIS RIGHT TO EDWARD B. CLARK, OF SAME PLACE.

IMPROVEMENT IN VENTILATOR AND OVERFLOW FOR SEWER-PIPES.

Specification forming part of Letters Patent No. **210,916**, dated December 17, 1878; application filed
November 18, 1878.

To all whom it may concern:

Be it known that I, WILLIAM S. CLARK, of the city and county of Philadelphia, State of Pennsylvania, have invented a certain new and useful Improvement in Soil or Sewer Pipes; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable others skilled in the art to make and use the said invention, reference being had to the accompanying drawing and letters of reference marked thereon.

The object of my invention is to provide a continuous current of air for ventilating the soil-pipes in buildings, and thus improve the sanitary condition of the buildings, and also to provide an overflow in case of the accidental choking or stopping of the discharging-sewer, or of the backing up of water, as sometimes occurs in cases of unusually heavy rain-fall.

The nature of my invention consists in extending the rising soil-pipe up through the roof of a building, where it should be open, so as to permit the escape of air or gases, and is better if provided with a cowl or ventilator-cup, to increase the draft and prevent descending air-currents from entering, and applying to such pipe, at a little distance above the ground-level, a pipe reaching horizontally, or with a slight inclination downward, to the outside of the building; also, in peculiar-shaped T-pipe for the insertion or attachment of the horizontal pipe.

The drawing shows a building in section with my devices applied.

A is the culvert, having a trap, B; C, the upright pipe leading above the roof, and having a ventilating-cap, D, thereon. E E E are closets emptying into the pipe C. F is a T-pipe, having a branch, K, extending horizontally therefrom, and beveled at its lower side, as shown at G in the drawing. H is a pipe extending through the building, and provided with a screen or grating to exclude animals.

The beveled lower side of the branch K of the T-pipe F avoids the danger of any matter lodging therein in its descent through the pipe C.

The operation of my invention is as follows: The heat of the building expands or rarefies the air and gases contained in the rising pipe, and the air enters the horizontal pipe and passes upward, and is discharged above the roof, the supply of air thus continuously maintained preventing the formation of gases heavier than air from attaining such a large proportion as to remain by their greater specific gravity in the pipe, or to pass out through the closet-openings into the apartments of the house.

In the event of choking of the soil-pipe, which always occurs first in the horizontal or culvert pipe, the overflow from the horizontal or branch pipe shows the obstruction before it becomes a nuisance in the building; and in event of extraordinary rain-falls overtaking the capacity of the culvert, the water, in backing up, simply washes out through the horizontal pipe H, and during the rain-fall passes away with the surface drainage.

What I claim as my invention is—

1. In combination with a vertical or rising soil-pipe extending through and open above a building, and connected at its base with a sewer or culvert, an inclined or horizontal branch pipe above the ground-level for ingress of air and for overflow purposes, substantially as and for the purpose set forth.

2. In combination with an upright soil-pipe extending through and open above a building, and connected at its base with a sewer, a T-branch beveled at its lower side, in connection with an air-inlet and overflow pipe, substantially as and for the purpose set forth.

WILLIAM S. CLARK.

Witnesses:

EDW. B. CLARK,
J. DANIEL EBY.