

No. 820,945.

PATENTED MAY 15, 1906.

R. E. BOORAEM.

VENTILATING SYSTEM FOR MINES, TUNNELS, OR SUBWAYS.

APPLICATION FILED JUNE 17, 1905.

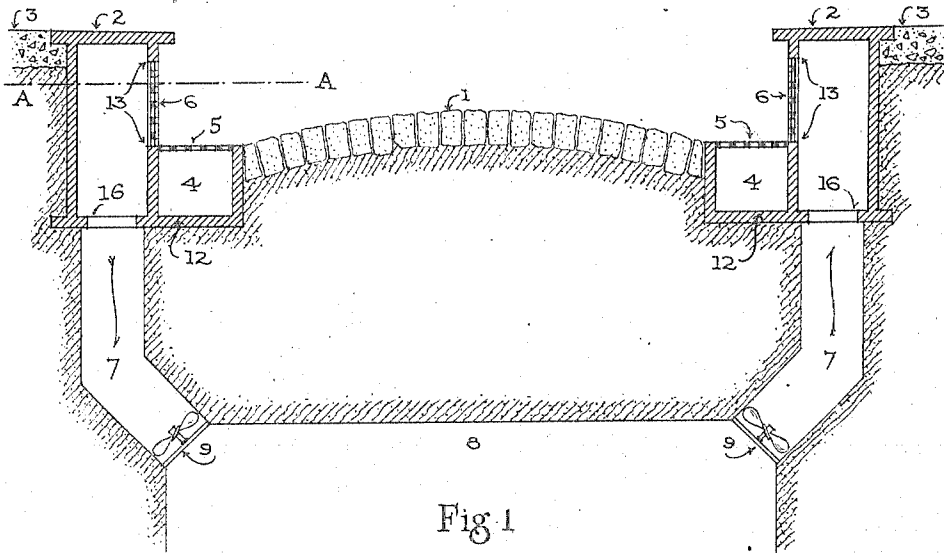


Fig 1

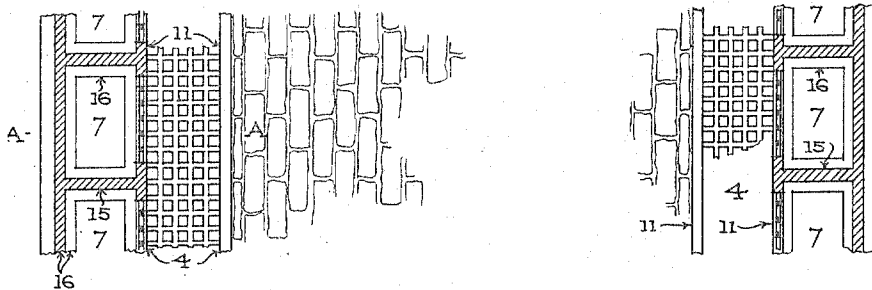


Fig 2

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UNITED STATES PATENT OFFICE.

ROBERT E. BOORAEM, OF NEW YORK, N. Y.

VENTILATING SYSTEM FOR MINES, TUNNELS, OR SUBWAYS.

No. 820,945.

Specification of Letters Patent.

Patented May 15, 1906.

Application filed June 17, 1905. Serial No. 265,769.

To all whom it may concern:

Be it known that I, ROBERT E. BOORAEM, a citizen of the United States of America, residing in the borough of Manhattan, city, county, and State of New York, have invented new and useful Improvements in Ventilating Systems for Mines, Tunnels, or Subways, of which the following is a specification.

My invention relates to that class of ventilating systems designed particularly for use over subways and underground chambers, and has for its object to provide a simple and efficient means for ventilating the underground passages.

The foregoing and other features of my invention will now be described in connection with the accompanying onesheet of drawings, forming part of this specification, in which I have represented my ventilating system in its preferred form, after which I shall point out more particularly in the claim those features which I believe to be new and of my own invention.

Referring to the accompanying drawings, in which similar characters of reference indicate like parts throughout both views, Figure 1 is a section through road-bed. Fig. 2 is a section on line A A, Fig. 1.

1 is the roadway. 2 is the curb; 3, the sidewalk; 4, the gutter; 5, a grating over the gutter; 6, a grating forming the vertical face of curb.

7 is a flue communication or passage connecting the hollow curb with the subway or underground passage 8. The passage 7 may be of variable length and is for natural or mechanical ventilation of the underground passage or cellar and may be provided with fans or blowers 9, if required, to force air in the underground passage or exhaust the same.

The gutter 4 may be of any desirable size and shape of section, having a trough 12 and provided with a heavy grating 5, which prevents vehicle-wheels from entering the trough.

The trough of this gutter is below grade, as shown, and connected to the sewer in the usual way. The gutter 4 is separated from the hollow curb 2 by a partition the entire length.

The curb 2 is hollow and is provided with openings 13, which are covered with gratings 6. The hollow curb 2 is reinforced by webs 15, which form separate pockets 16. The pockets 16 are connected with the underground passage by the flue or connection 7.

The roadway 1 and sidewalk 3 may be of any well-known construction having the usual contour to thoroughly drain.

I wish it distinctly understood that my ventilating system herein illustrated and described is in the form which I desire to construct it and that any changes or variations may be made as may be convenient or desirable without departing from the salient features of my invention, and I therefore intend the following claim to cover such modifications as naturally fall within the lines of invention.

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

In ventilating systems of the class described, in combination, an underground passage or chamber, a hollow or open curb with flue or pipe connections connecting the outer air and underground passage or chamber, a gutter separated from the hollow or open curb by a longitudinal partition, whereby surface water is drained in proper channels and not allowed to flow into the subway or chamber.

This specification signed and witnessed this 13th day of June, A. D. 1905.

ROBERT E. BOORAEM.

In presence of—

EDWD. VAN WINKLE,
MARGUERITE ROSS.