R. KNOX.

FRESH AIR LEVEL INLET FOR HOUSE OR OTHER DRAINAGE.

APPLICATION FILED APR. 12, 1909.

950,332. Patented Feb. 22, 1910.

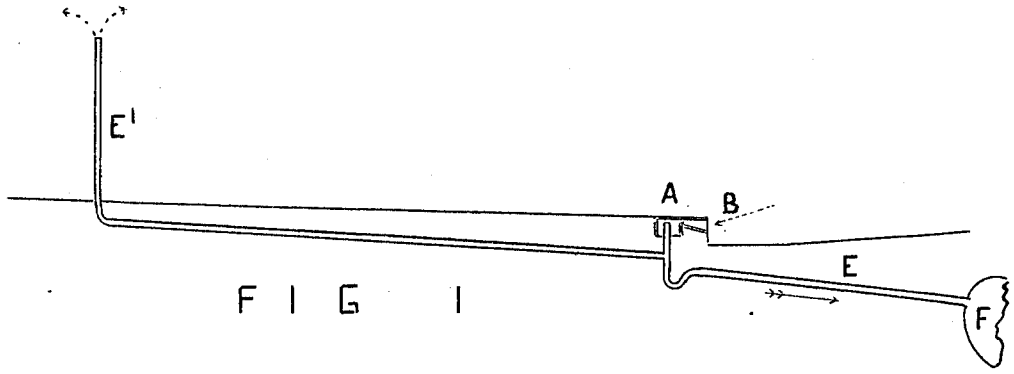

FIG 1

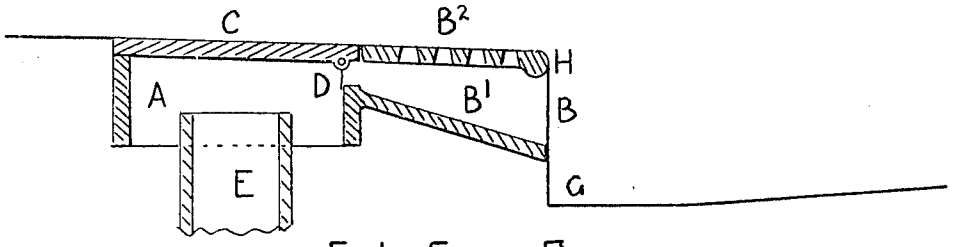

FIG 2

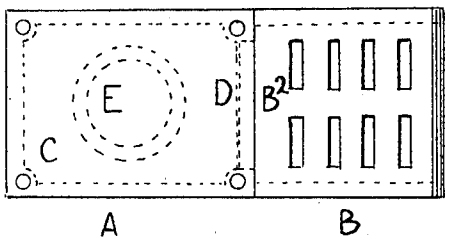

FIG 3

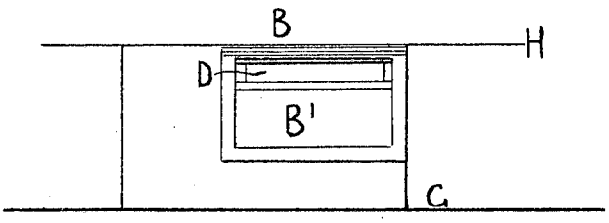

FIG 4

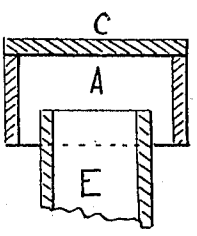

FIG 5

Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT KNOX, OF DUNEDIN, NEW ZEALAND.

FRESH-AIR LEVEL INLET FOR HOUSE OR OTHER DRAINAGE.

950,332. Specification of Letters Patent. Patented Feb. 22, 1910.

Application filed April 12, 1909. Serial No. 489,496.

To all whom it may concern:

Be it known that I, ROBERT KNOX, a subject of His Majesty the King of Great Britain, residing at the city of Dunedin, in the British Dominion of New Zealand, have invented certain new and useful Improvements in Fresh-Air Level Inlets for House or other Drainage; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to produce a simple, thoroughly reliable and efficient fresh air level inlet to the boundary trap of a drainage system, and by placing same in the curb of a footpath, to obviate the necessity of adopting patterns of unsightly appearance that are often difficult to locate, especially in cities. For this purpose I make a box in two compartments, the rear compartment being bottomless, and the forward compartment having an open front and a forwardly and downwardly inclined bottom, leaving a passage for fresh air to ventilate the system. The said box, placed in the curb of the footpath or in similar desired position for its work, is arranged to exclude dirt and dust as far as possible from the inner compartment, and the whole is formed for easy cleaning and for access to all parts needed.

The invention is designed to work in harmony with the well known action of air, which flows into a low part and out of a high one in a system of pipes.

Referring to the accompanying drawing:—Figure 1 is a small scale diagram of a system of ventilated drains, showing the boundary trap with my cover in position, the intake and outlet of air for ventilation being indicated by broken arrows. Fig. 2 is a longitudinal section of the invention in position over the trap inlet. Fig. 3 is a plan of same. Fig. 4 is a front elevation of the front compartment and Fig. 5 is a cross section of the rear compartment.

A is the bottomless rear compartment, and B is the front compartment, the latter having a forwardly and downwardly sloping bottom B^1.

B^2 are holes for admitting rain for assisting to wash any dirt from B^1.

C is the removable top or cover of the rear compartment and is made of sufficient size to expose flap D fully; for renewal or inspection. This flap is self acting, and is arranged to allow the fresh air to enter at the end of the pipe E and leave the system at the upper end of pipe E^1, for ventilation of the drain, while preventing any air from returning.

E is the drain to sewer F, trapped in the usual manner and having its uptake inlet under the cover as shown. The said drain may be connected to any part of the rear compartment A. The solid arrow, Fig. 1, shows the direction of the drainage matter to sewer F.

G is the usual street gutter and H the edge of the footpath curb.

The perforated top of the front compartment B, and the cover C, in actual practice, should be roughened to prevent slipping.

In this invention any suitable materials or sizes may be adopted.

I am aware that fresh air inlets are often made and attached to the sides of houses, or are placed in the center of the footpath.

My invention being fixed as low as possible, gives a good draft, less piping is required than in raised inlets, the air is colder and the ventilation therefore better. My inlet is kept away from doors and windows and the placing of it in position does not necessitate the raising of erections on the road or any cutting into buildings to hold the fresh air inlet.

Having now particularly described and ascertained the nature of my said invention and the manner in which it is to be performed, I declare that what I claim, is:—

The combination with a vent box comprising a front compartment having a stationary perforated top, an open front and a forwardly and downwardly inclined bottom, a bottomless rear compartment communicating with the front compartment and having a removable top, and an inwardly opening valve arranged at the point of communication between said compartments to permit the passage of air from the front to the rear compartment and to prevent its passage from said rear to said front compartment; of an air pipe having its inlet end projecting upwardly into said rear compartment.

In testimony whereof, I affix my signature, in presence of two witnesses.

ROBERT KNOX.

Witnesses:

HENTON MACAULAY DAVEY,

ELIZABETH ANN DAVEY.