

E. FRANKLIN.
AIR INLET BOX FOR SEWERS.
APPLICATION FILED APR. 20, 1910.

977,860.

Patented Dec. 6, 1910.

2 SHEETS—SHEET 1.

Fig. 1

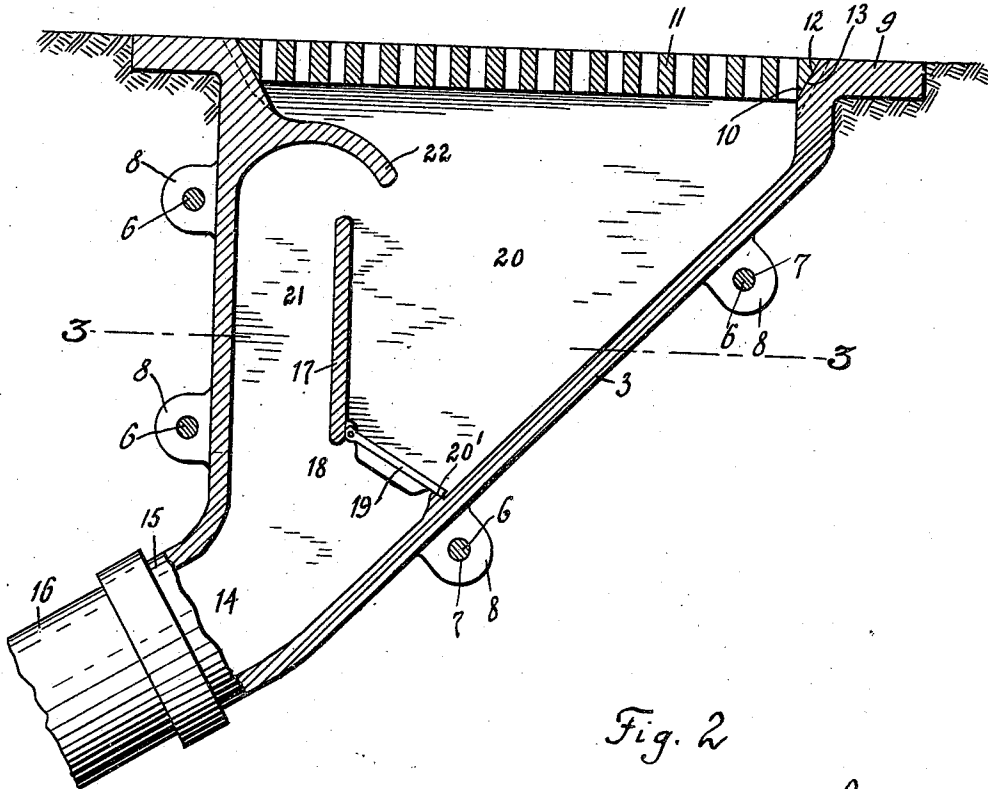
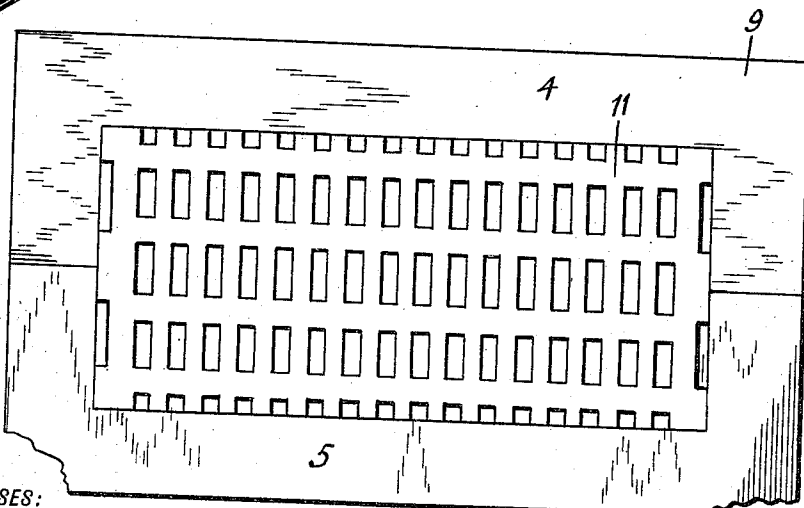


Fig. 2



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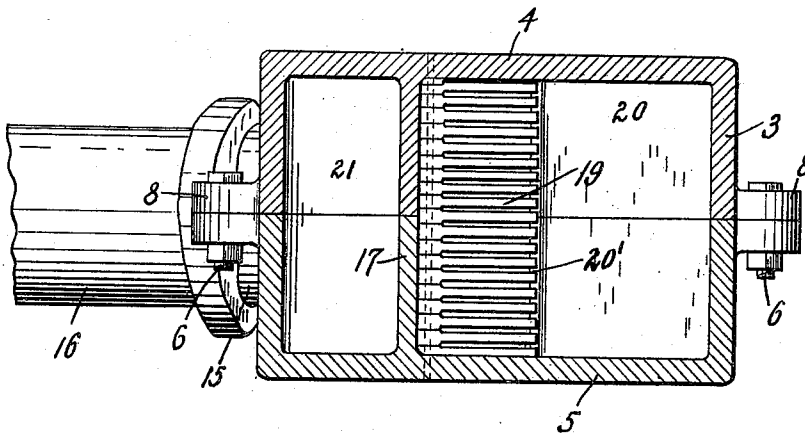


Fig. 3

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UNITED STATES PATENT OFFICE.

EMIL FRANKLIN, OF NEW YORK, N. Y.

AIR-INLET BOX FOR SEWERS.

977,860.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed April 20, 1910. Serial No. 556,546.

To all whom it may concern:

Be it known that I, EMIL FRANKLIN, a citizen of the United States, and a resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Air-Inlet Boxes for Sewers, of which the following is a specification.

The present invention relates to an attachment for sewer pipes, and more particularly to an air inlet box thereof.

The air inlet box, connected with the sewerage system of a building, is usually located on a level with the sidewalk, while the air-vent of the system is normally arranged upon the roof of the building. As far as known, the air inlet boxes heretofore in use do not serve efficiently their purpose, for the reason that they are constructed in such a manner that the dirt and other foreign substances, introduced through the grate thereof, clog the air inlet, preventing thus the entrance of pure air into the sewerage system of the house.

One of the objects of the present invention is to overcome the serious defects of the air inlet box heretofore in use, and to provide a device of this character which is simple in construction, efficient in operation, and which may be installed in position with great facility.

A further object of the invention is to so construct a device of this character that in the event of dirt or sediment eventually collecting therein, the same may be removed in an expeditious manner and with but slight inconvenience.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in the novel construction, arrangement and combination of parts hereinafter fully described, pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that many changes may be made in the size, proportion and arrangement of the several parts thereof without departing from the spirit or sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a central vertical section of the device as applied in position; Fig. 2 is a plan view thereof, and Fig. 3 is a section taken on line 3, 3 of Fig. 1.

In the drawings, the numeral 3 indicates a casing, preferably made of cast iron, and of two sections 4 and 5, which may be united in any suitable manner, for instance, by screw bolts 6, 6, engaging the holes 7, 7 in the projections 8, 8 upon the two sections. This casing is provided upon its upper end with a flange 9, which is ordinarily on a level with the sidewalk. An inlet opening 10 is formed in the upper portion of the casing and covered by a grate 11, the edges of which are beveled, as shown at 12, and rest upon the similarly constructed edges 13 of the casing. The casing is furthermore provided with air outlet 14, ending in a pipe 15, to which is joined a pipe 16 in any suitable manner, and which leads to the main pipe connecting the sewerage system of the building with the main sewer upon the street.

A substantially vertical partition 17 is arranged in the casing, and extends through the whole width thereof. To the lower end 18 of this partition wall is pivoted a grate 19, which rests normally upon a projection 20' formed upon the slanting bottom of the casing, and serves as an additional means for preventing dirt or foreign substances introduced into the casing from entering into the pipe 16. The casing is thus divided into a compartment 20 and an air passage 21. The compartment 20 forms the sediment chamber, and the passage 21 serves to allow of an unrestricted passage of air into the pipe 16. The mouth of the air passage 21 is protected by a deflector 22, keeping dirt and foreign matter out of the same. By this construction, the access of most, if not all, of the foreign matter into the pipe 16 is prevented, while the air may readily pass through the passage 21 into the sewerage system. If in time so much sediment is collected in the compartment 20 that it reaches the height of the level of the deflector 22, the grate 11 is removed, whereby convenient access may be had to the compartment 20, and the same be cleaned without tearing out the box or otherwise interfering with its ordinary function. Of course, cleaning would not be necessary ordinarily, as the rain water will carry the sediment along with it through the perforations of the grate 19 into the pipe 16, and keep thus the compartment 20 in a condition which will allow the air to enter through the passage 21 in the proper manner.

What I claim is:

1. In a device of the character described, the combination with a casing open at its upper end and having an outlet in its bottom portion which is adapted to be connected with the sewerage system of a building, a removable grate arranged over the open end of said casing, a partition in said casing dividing the same into a compartment and into an air passage both of which communicate with the open end of said casing and with the outlet thereof, a grate between the lower end of said partition and the bottom of said casing for preventing dirt and foreign matter introduced into said compartment from passing through the outlet of said casing, and a deflector arranged above the mouth of the air passage in said casing.
2. In a device of the character described, the combination with a casing open at its upper end and having an outlet in its bottom portion which is adapted to be connected with the sewerage system of a building, a removable grate arranged above the open end of said casing, a partition in said casing dividing the same into a compartment and into an air passage both of which communicate with the open end of said casing and with the outlet thereof, a grate hinged to the lower end of said partition and resting upon the bottom portion of said casing whereby dirt and foreign matter is prevented from passing through the outlet of said casing, and a deflector arranged above the mouth of the air passage in said casing.
3. In a device of the character described, the combination with a two-part casing open

at its upper end and having an outlet in its bottom portion which is adapted to be connected with the sewerage system of a building, a removable grate arranged over the open end of said casing, a partition in said casing dividing the same into a compartment and into an air passage both of which communicate with the open end of said casing and with the outlet thereof, a grate between the lower end of said partition and the bottom of said casing, and a deflector arranged above the mouth of the air passage in said casing.

4. In a device of the character described, the combination with a two-part casing open at its upper end and having an outlet in its bottom portion which is adapted to be connected with the sewerage system of a building, a removable grate arranged above the open end of said casing, a partition in said casing dividing the same into a compartment and into an air passage both of which communicate with the open end of said casing and with the outlet thereof, a grate hinged to the lower end of said partition and resting upon the bottom portion of said casing whereby dirt and foreign matter is prevented from passing through the outlet of said casing, and a deflector arranged above the mouth of the air passage in said casing.

Signed at New York, in the county of New York, and State of New York, this 13th day of April, A. D. 1910.

EMIL FRANKLIN.

Witnesses:

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S. BIRNBAUM.