

G. H. BACKMIRE.
VENT BOX.
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1,037,104.

Patented Aug. 27, 1912.

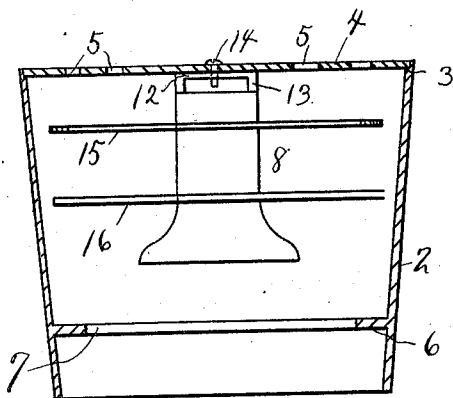


Fig. 1.

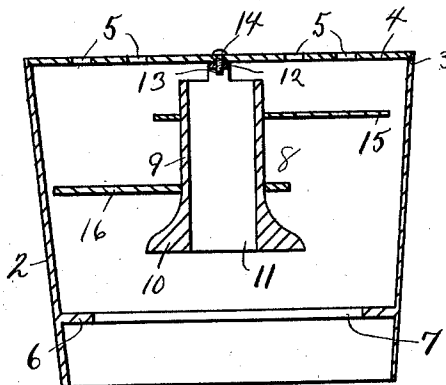


Fig. 2.

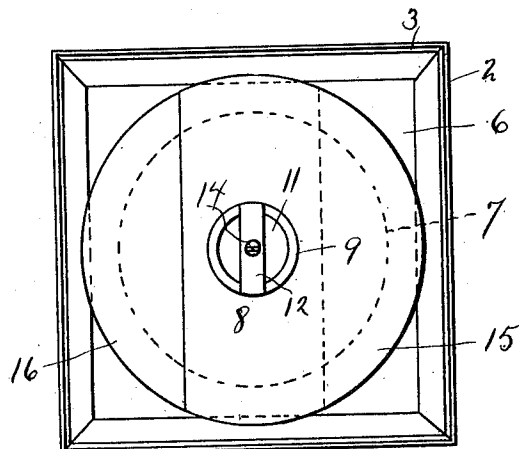


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE H. BACKMIRE, OF PHILADELPHIA, PENNSYLVANIA.

VENT-BOX.

1,037,104.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE H. BACKMIRE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Vent-Boxes, of which the following is a specification.

My invention relates to new and useful improvements in vent box, and has for its object to provide an exceedingly simple and effective device of this character whereby the gases are allowed to pass off from the water standing in the trap or pipe of a drain especially those pipes which drain the waste water from buildings and convey it to the sewer.

A further object of the invention is to provide a vent box which will allow the unhampered passage of gases therefrom as well as the passage of air thereto and at the same time, prevent the passage of foreign matter into the trap which would be likely to obstruct the same.

The vent box made in accordance with my improvement will especially prevent the passage of sticks or wires into the drain pipe when inserted into the drain box through the openings in the cover.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawing forming a part of this specification, in which—

Figure 1, is a vertical sectional view through the vent box showing the shield or deflector in elevation. Fig. 2, a similar view through the vent box and the shield or deflector. Fig. 3, a plan view thereof, showing the relation of the deflector to the box or casing, the cover being entirely removed.

In carrying out my invention as here embodied, 2 represents the vent box or casing having a shoulder 3 at its upper edge, on which rests the cover or closure 4 having perforations 5, for the outlet of the gases and the inlet of air. The vent box or casing 2, carries, in proximity to its lower edge on the interior thereof, a flange 6, which is

preferably formed integral with the side walls and this flange is so constructed that a passage way 7 is produced therein which is preferably annular in shape.

8 represents a deflector carried by the cover 4 and depending therefrom into the box or casing 2, said deflector comprising a body 9, the lower end of which is flared outward forming an enlargement or flange 10, said body has a vertical passage way 11 passing entirely therethrough and the upper end of the body carries a relatively narrow bridge 12 which extends from the vertical opening 11 and is attached to the body by lugs 13, said bridge and lugs being preferably formed integral with the body 9.

The deflector is attached to the cover 4 by any suitable fastening means preferably a screw or its equivalent 14 which passes through the center of the cover and is threaded into the bridge 12 and if found desirable, a retaining means such as a nut may be threaded on to the end of the screw.

In practice, the vent box is placed in the ordinary opening in the ground, just above the vent pipe so that the cover is flush with the pavement. Should any one attempt to force, twigs, sticks, wires or other foreign material through the openings 5 in the vent box, the ends of said sticks and the like will come in contact with one of the plates 15 and 16 which are carried by the body 9, and are arcuate in shape, that is each plate is formed of the major portion of a circular imperforated plate and what would be the center of this plate, if it were a complete circle, is the center of the body, and these plates are so mounted or arranged upon the body that they are in staggered relation to one another, so that the major portion of the upper plate is on one side of the body while the major portion of the lower plate is on the opposite side of the body thus a passage way for the air and gases is formed through the openings 7, then upward to one side beneath the plate 15 and above the plate 16 then again upward and over the plate 15 and out through the openings 5 in the cover.

Because of the plates 15 and 16 a stick must be placed in the vent box at an angle to get around the plates and if for any reason, the stick should pass both of the plates it will then come in contact with the flange 6 preventing its passage into the vent pipe.

Of course I do not wish to be limited to the exact details of construction as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. A vent box consisting of a casing, a perforated cover and a deflector, said deflector comprising a body and two plates, one of said plates being below the other and in staggered relation.

2. A vent box consisting of a casing, a cover and a deflector depending from said cover, said deflector comprising a body and two arcuate imperforated plates, said plates being mounted one above the other and the major portion of each plate on opposite sides of the body.

3. A vent box consisting of a casing, a perforated cover and a deflector, said deflector depending from the cover and being secured thereto, said deflector comprising a body and having a vertical opening there-through and two arcuate plates, said plates mounted upon the body, one above the other and the major portion of each plate upon the opposite sides of the body.

4. A vent box consisting of a casing, a flange carried by the walls of said vent box

on the interior thereof adjacent their lower ends, a perforated cover mounted upon the upper edge of the casing and a deflector depending from the cover, said deflector comprising a hollow body and two plates, one of said plates overlying the other and the major portions of said plates being disposed on opposite sides of the body.

5. A vent box consisting of a casing, a flange carried by the walls of said vent box on the interior thereof adjacent their lower ends, a perforated cover mounted upon the upper edge of the casing, a deflector comprising a body flared at its lower end and having a vertical opening there-through, a bridge spanning said opening and formed integral with the body, two plates, one of which is mounted above the other on the body and the major portions of said plates being disposed on opposite sides of the body, and means passing through the cover and the bridge for detachably fastening the deflector to the cover.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

GEORGE H. BACKMIRE.

Witnesses:

M. E. HAMER,

M. H. LO REE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."