

938,145.

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UNITED STATES PATENT OFFICE.

EUGENE B. HENRY, OF SAN FRANCISCO, CALIFORNIA.

FRESH-AIR INLET.

938,145.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EUGENE B. HENRY, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Fresh-Air Inlets, of which the following is a specification.

My invention relates to fresh-air inlet pipes that are used in plumbing operations, and particularly pertains to that class employed in admitting fresh air to the house side of the underground main drain trap in a plumbing system.

It is the object of my invention to provide a fresh-air inlet fitting that is so constructed as to prevent sticks and the like from passing through the inlet and falling into the main drain trap, and which can be readily opened to remove any obstructions that may collect in the trap.

It is a further object to provide a fresh-air inlet fitting that can be set flush with the surface of a sidewalk, floor or the like.

My invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section showing the invention as applied. Fig. 2 is a detailed perspective view of the invention with a portion broken away.

In constructing and installing house-drainage systems, it is necessary to provide a main drain trap at the point of connection between the house drain and the sewer. This trap is usually located underground and at some distance from the building, and has a vent or fresh-air pipe leading from the house side of the trap to the surface of the ground, where it is open to the atmosphere in order to admit fresh air to create a circulation through the entire plumbing system in the building. Various means have been employed to cover the open end of the air inlet pipe in such manner as to prevent the ingress of rubbish or the displacement of cover, and at the same time admit fresh air to the trap. The devices generally used are inadequate and possess many objectionable features. In the invention hereafter described I have obtained a fresh-air inlet that is efficient, economical, and simple in construction.

In the drawings, A is an underground main drain trap of ordinary construction,

connecting the house drainage pipe 2 with the sewer pipe 3. A fresh-air inlet pipe 4 extends from the trap A upward to a point near the surface of the ground. Fitted into the upper end of the fresh-air pipe 4 is a tubular fitting 5 and a cover 6.

The member 5 is flared outward, at 7, and then continued upward in cylindrical form, as shown at 8, and is capped by the cover 6. The cover 6 is provided with a number of openings or perforations 9, and has an annular side flange 10 which is adapted to fit free over the top of the enlarged portion 8. Secured to the inner side of the cover 6 is a bell-shaped or conical casting 11, the mouth of which is approximately of the same diameter as, or even a little larger than, the inside of the fitting 5. When the cover is in position, the lower edge of the bell 11 is suspended a short distance above and directly over the throat of the pipe 4. A bead 12 is formed on the lower rim of the cover 6 to prevent the lifting of the cover when embedded in cement 13.

In practice, the invention is applied to the fresh-air inlet pipe, as shown in Fig. 1. Air passes through the openings 9 and between the edge of the bell 11 and the flared walls 7, as indicated by the arrows.

It is obvious that sticks or the like which might be thrust through the openings 9 are prevented from passing directly into the fresh-air pipe 4, because the upper surface of the cone 11 and the annular incline 7 offer complete obstruction thereto. The cone 11 is far enough above the incline 7 to permit such dirt as may fall through the openings 9 to pass down into the trap. Such materials as can pass through the openings 9 into the trap A will be of such size that they will be readily siphoned into the sewer. The main difficulty heretofore has been to keep the openings in the cap from being plugged up by sticks poked in by small boys, and the cover from being lost off. Practice shows that this difficulty is practically obviated in the present construction.

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

An improved air vent comprising a pipe section having its upper end flared outwardly and then continued upwardly in cylindrical form, a cap of greater diameter than the enlarged cylindrical portion of said section, said cap having a downwardly extend-

ing flange adapted to fit over and extend
along the outer sides of said cylindrical por-
tion, said flange having a rim bead em-
bedded in cement, and having perforations
5 permanently opened to the atmosphere, and
a removable, upwardly projecting conical
baffle secured to the underside of the cap and
projecting within said cylindrical portion of
the pipe section, the lower edge of said cone
10 being proximate to but out of contact with
said flared portion of the pipe section, and

of a diameter substantially the same as the
diameter of said section below said flared
portion.

In testimony whereof I have hereunto set 15
my hand in presence of two subscribing wit-
nesses.

EUGENE B. HENRY.

Witnesses:

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