

No. 887,322.

PATENTED MAY 12, 1908.

J. L. FRUIN & J. J. CROTTY.

FRESH AIR INLET.

APPLICATION FILED MAY 29, 1906.

Fig. 1.

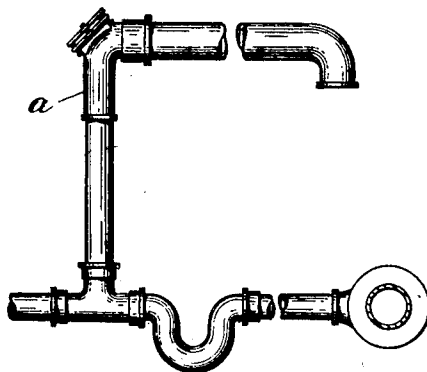
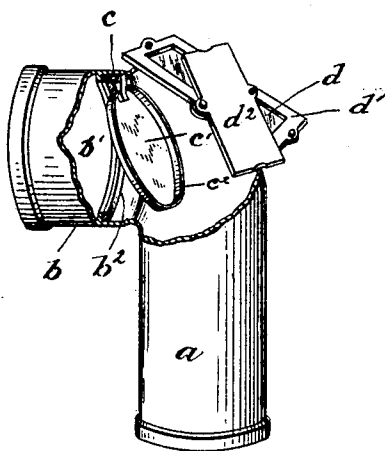


Fig. 2.



Attest:
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UNITED STATES PATENT OFFICE.

JOHN L. FRUIN AND JOSEPH J. CROTTY, OF NEW YORK, N. Y.

FRESH-AIR INLET.

No. 887,322.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed May 29, 1906. Serial No. 319,266.

To all whom it may concern:

Be it known that we, JOHN L. FRUIN and JOSEPH J. CROTTY, both citizens of the United States of America, and residents, respectively, of the borough of Brooklyn and the borough of the Bronx, city and State of New York, have invented certain new and useful Improvements in Fresh-Air Inlets, of which the following is a specification.

This invention relates to means for supplying a constant inflow of fresh air, from the street, through the pipes and fittings of a plumbing system, combined with means preventing the expulsion at such fresh air intake of foul air and gases due to pressure created by periodic waste discharges through the system.

In modern plumbing employing intercommunicating waste and vent stacks, venting above the building, and where a fresh air intake is located near the street, the objection exists that during a discharge in the system the back pressure set up thereby, being greater than the vent suction, causes the emission into the street of foul air and gases which prove both disagreeable and deleterious to health of passers by. It is therefore the purpose of our invention to provide a fresh air intake having a check valve of such character that while ingress is absolutely uninterrupted, egress therefrom is positively prevented.

In the drawing accompanying this application: Figure 1 indicates a portion of a main waste pipe, with a trap, leading to a sewer, and communicating by a T-joint and pipe length with our improved air inlet fitting, and Fig. 2 is a perspective elevation, partly broken away, of our said fitting.

Our improved fitting consists of an elbow shaped pipe having a vertical portion *a* and horizontal portion *b*. The latter is provided with an internal, annular flange or rib *b'*, which is faced, interiorly, with a seat ring *b''*.

Pivotally suspended from the interior, upper surface of portion *b*, as by hinge *c*, is a disk valve *c'*, that is composed of aluminum or other suitable light material. Said disk valve is hung just behind seat ring *b''*, and is disposed relatively to said seat ring in such

manner that the lightest pressure from the interior of the fitting will close it tightly thereagainst and prevent egress of any odors; while, on the other hand, a slight force exerted in the opposite direction will freely open said valve to permit ingress of fresh air.

It will be observed that the disk valve *c'* is provided at its interior surface with a peripheral flange *c''*. This is to enable it the better to concentrate the pressure of foul air and gases given off during a discharge in the system, and to utilize all such pressure available to hold the valve disk firmly against its seat, thus preventing escape through the valve. Of course, as soon as the pressure is exhausted the suction forces of the vent will come into operation, and fresh air then entering through the valve will carry off the foul air and gases through the vent.

In order that a visual indication may be had of the interior condition of this inlet device, we have provided an observation opening in the elbow bend, closing said opening with a glass or other transparent covering *d* held in a frame *d'*, and set obliquely above the disk valve. The frame *d'* is securely bolted to the fitting and the closure rendered air tight. Said frame can however be removed for purposes of repairing the valve, &c. The glass *d* is protected against breakage by means of a cover plate *d''* removably fitted thereover.

I claim:

An elbow-shaped plumbers' fitting having a vertical portion and a horizontal portion, a pivotal valve and a seat therefor within the horizontal portion, said valve opening interiorly away from the mouth of said fitting and closing toward the same, the arch of the elbow-fitting having an observation opening provided therein, entirely in rear of said valve, and an inclined, glass-carrying frame removably closing said opening.

Signed at New York this 24th day of May 1906.

JOHN L. FRUIN.
JOSEPH J. CROTTY.

Witnesses:

F. W. BARKER,
FREDERICK C. BONNY.