

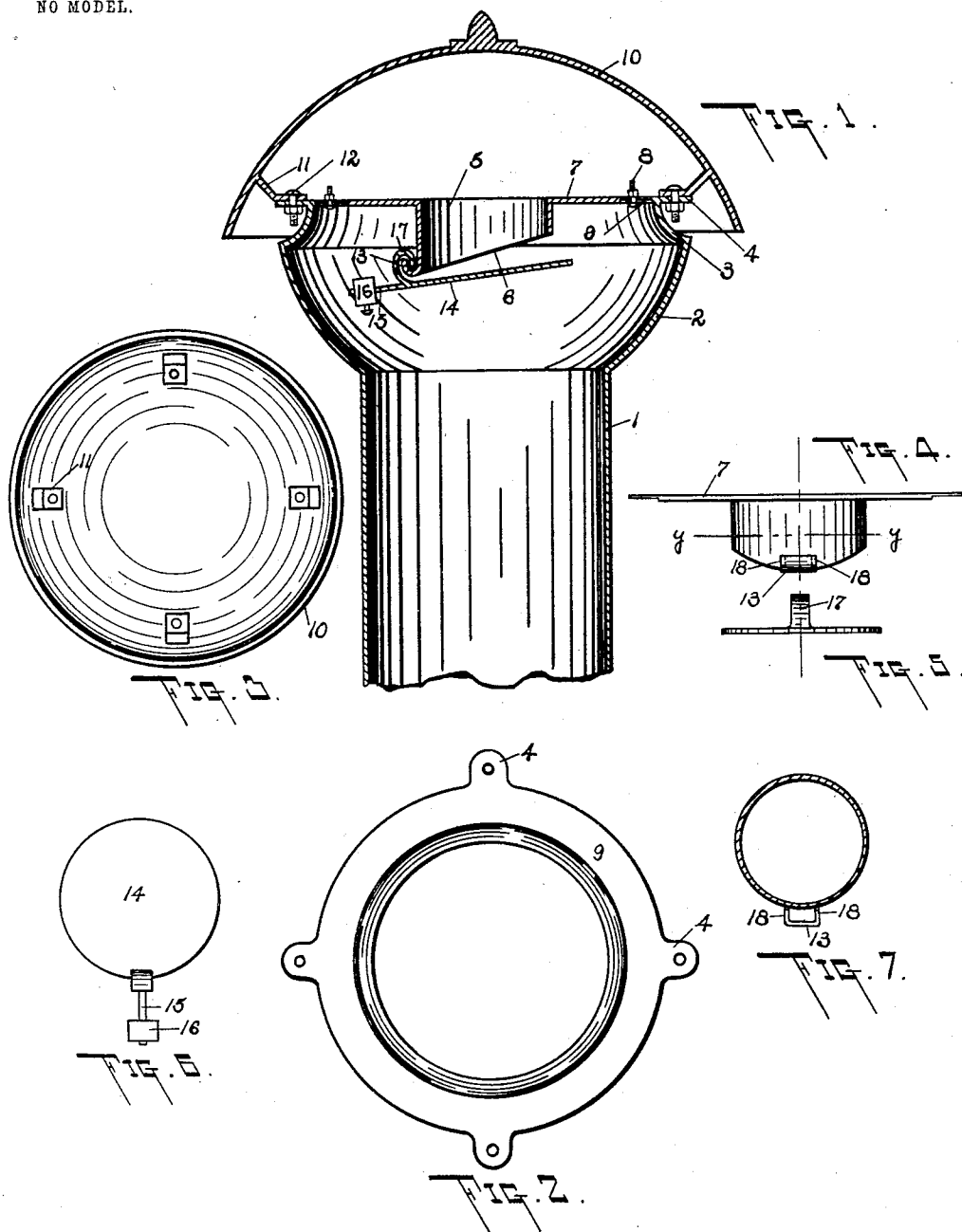
No. 735,007.

PATENTED JULY 28, 1903.

R. S. WATSON.  
FRESH AIR INLET.

APPLICATION FILED MAY 21, 1902.

NO MODEL.



WITNESSES:

*James C. Hanson.*

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## UNITED STATES PATENT OFFICE.

ROBERT S. WATSON, OF BAY CITY, MICHIGAN.

## FRESH-AIR INLET.

SPECIFICATION forming part of Letters Patent No. 735,007, dated July 28, 1903.

Application filed May 21, 1902. Serial No. 108,433. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT S. WATSON, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Fresh-Air Inlets; 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.

This invention is a fresh-air inlet for traps and vent-pipes of sewers.

The invention consists in certain novel constructions and devices hereinafter set forth, and has for its object to produce a fresh-air inlet which can be constructed at small cost, requiring but little machine-work, and so arranged that its interior mechanism can be easily and quickly removed for repair without disturbing the vent-pipe, and, further, to provide simple means for pivotally suspending the valve.

The invention consists in the device illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section of the inlet-valve. Fig. 2 is a top plan view showing the bowl with the hood and valve removed. Fig. 3 is a view of the hood as seen from below. Fig. 4 is a rear elevation of the valve-tube. Fig. 5 is a rear view of the valve. Fig. 6 is a top view of the valve. Fig. 7 is a section of the valve-tube on the line *y y*.

1 represents a vent-pipe surmounted by a bowl 2, having an inwardly-curved upper portion 3, provided with outwardly-projecting lugs 4.

5 is the inlet-tube, having its lower end 6 oblique to the axis of the tube. The tube 5 is supported by a circular flange 7, which is secured by bolts 8 or similar means to an internal flange 9, carried by the bowl 2.

A hood 10 is supported, by means of internal brackets 11, upon the lugs 4 and is secured thereto by means of bolts 12.

An upwardly-projecting lip or flange 13, formed integral with the tube 5, supports a hinged valve 14. The valve 14 consists in a flat disk having a rearwardly-projecting arm 15, carrying a counterbalance-weight 16. An upwardly-bent flange 17 is formed on the

valve, the free end of the flange being bent downwardly to form a suspension-hook, which rests in the bend of the flange 13, so that the valve-disk 14 is balanced thereon and opens and closes with a slight variation in the air-pressure.

In order to prevent lateral displacement of the hooked flange 17, I provide at each side of the lip 13 a small inwardly-projecting flange 18. The lip and its flanges may all be formed integral with the tube 5.

The diameter of the flange 7 is greater than that of the valve-disk 14, so as to permit the flange, the tube, the valve-disk, and counterbalance-weight to be easily removed by unscrewing the bolts 8 after the hood 10 has been taken off.

By the means above described I have produced a simple inlet-valve that is composed of but few parts, is simple in construction, and having its valve so suspended as to minimize the liability of its becoming inoperative by rust or accumulation of dirt, as is the case when hinge or pin-pivoted joints are used.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A fresh-air inlet comprising a bowl having outwardly-projecting lugs; a hood carried by said lugs; an inlet-tube having its lower end oblique to the axis, and having an annular flange secured to the bowl; a valve having a counterbalance-weight; a suspension-hinge for said valve, said hinge comprising an upwardly-projecting lip on the lower edge of said tube, an upwardly-bent flange on the valve, the free end of said flange being bent downwardly to engage the projecting lip of the tube, all arranged substantially as and for the purposes set forth.

2. A fresh-air inlet comprising a bowl; a hood mounted on said bowl; an inlet-tube having its lower end oblique to the axis and having an annular flange of larger diameter than the tube; a valve having a counterbalance-weight; a suspension-hinge for said valve, said hinge comprising a projecting lip on the lower edge of said tube, a flange on said valve, having a downwardly-projecting edge that rests upon the projecting lip of the tube, substantially as described.

3. In combination with a fresh-air-inlet

tube, a valve; and a suspension-hinge comprising an upwardly-projecting lip on the lower edge of the inlet-tube, an upwardly-bent flange on the valve, the free end of said  
5 flange being bent downwardly to engage the projecting lip of the tube, and inwardly-projecting flanges at each side of said lip.

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

ROBERT S. WATSON.

Witnesses:

JAMES C. HANSON,  
I. GOULD.