

No. 810,733.

PATENTED JAN. 23, 1906.

G. W. EVANS.
VENTILATOR FOR SEWER AND OTHER PIPES.
APPLICATION FILED MAY 29, 1905.

Fig. 1.

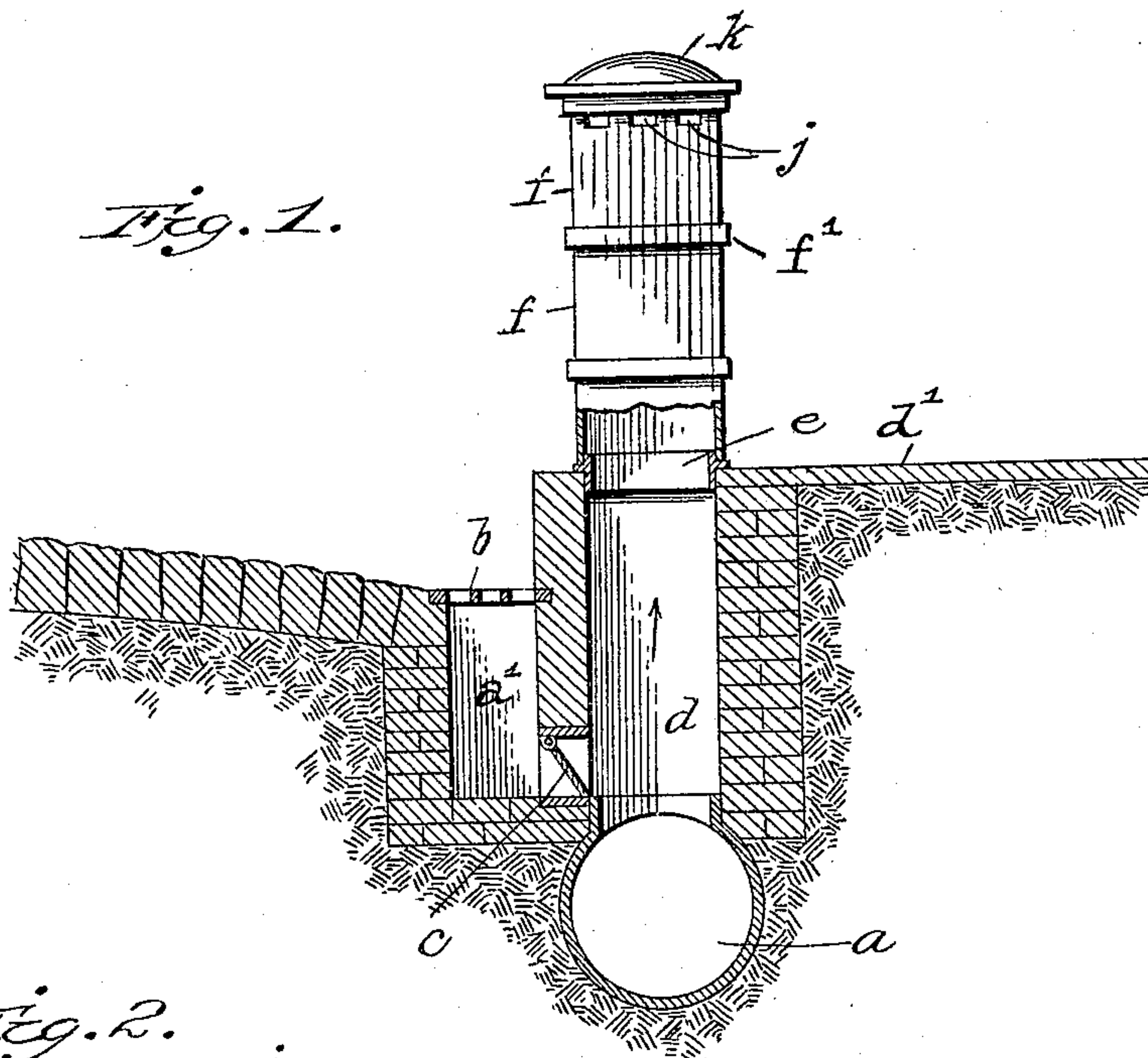


Fig. 2.

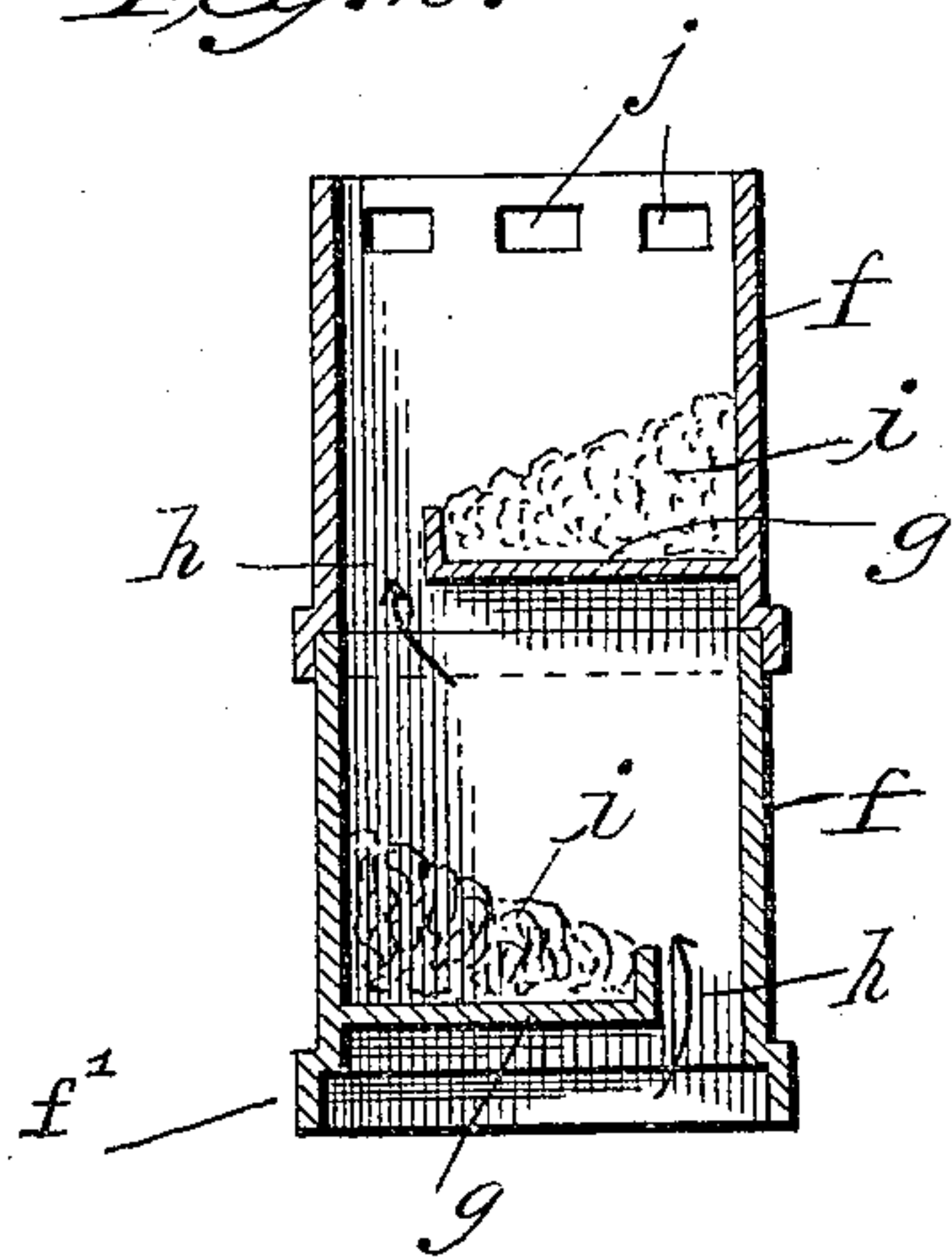


Fig. 3.

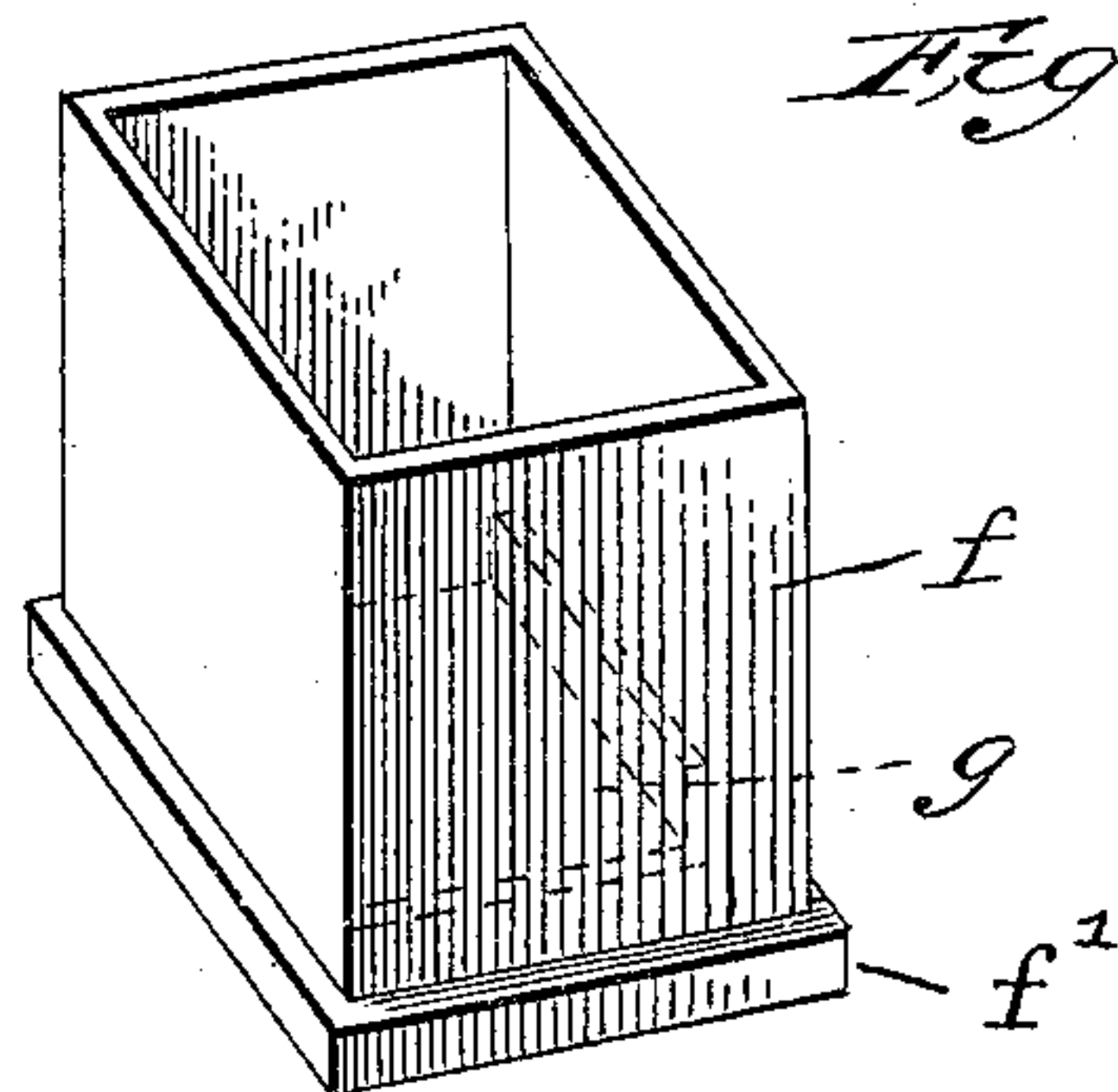
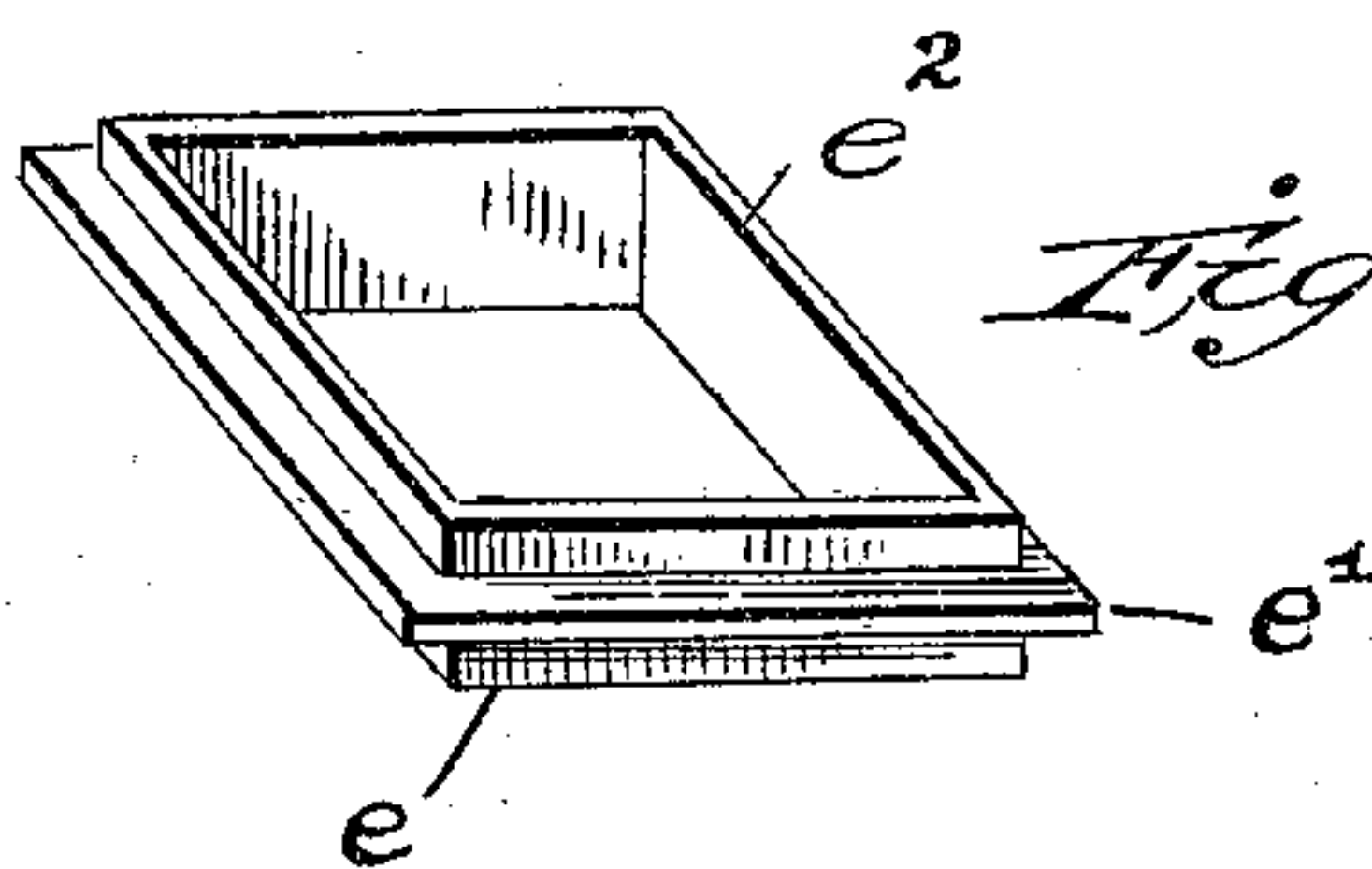


Fig. 4.



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UNITED STATES PATENT OFFICE.

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VENTILATOR FOR SEWER AND OTHER PIPES.

No. 810,733.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed May 29, 1905. Serial No. 262,719.

To all whom it may concern:

Be it known that I, GEORGE W. EVANS, a citizen of the United States, residing at Tuxedo Park, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Ventilators for Sewer and other Pipes, of which the following is a specification.

This invention relates to a combined ventilator and purifier for application to sewers, soil-pipes, and drain-pipes, the object being to provide means to prevent the obnoxious gas from escaping at sewer-inlets and also to allow the gas to escape through an improved purifier.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the improvements applied adjacent the inlet of a sewer. Fig. 2 is a vertical section of two joints of a purifier-ventilator. Fig. 3 is a perspective elevation of one joint of the purifier-ventilator. Fig. 4 is a view of the base-plate upon which the purifier rests.

The letter *a* designates the sewer, and *a'* the inlet-opening from the street into the sewer. A grated cover *b* is over the entrance of the inlet, and a flap-valve *c* is hinged to close said inlet and prevent gas from the sewer escaping to the street. This flap closes by gravity, but will readily open to allow storm-water or surface-drainage to enter. A suitable ventilating flue or passage *d* extends from an opening in the sewer upward to the surface of the street-pavement *d'*, and the purifier is mounted over the flue.

The purifier consists of a number of joints, sections, or chambers *f*, each having at one end a flange *f'* to make a union or connection with the next joint below. Each joint or section *f* has secured to its interior a shelf *g*, arranged to form a vent-passage *h*. This shelf serves to support any desired disinfectant or purifying agent *i*, such as lime, charcoal, or other article. The vent-passages *h* are engaged to have position alternately first on one side and then on the opposite side of the purifier, as seen in Fig. 2. A suitable base-plate of metal is shaped to conform in size and shape to the vent-flue and the purifier-box. This metal base comprises a frame having a down-flange *e* to enter the flue *d*, a lateral flange *e'* to rest on the surface of the pavement, and an up-flange *e²* to take into the bottom of the purifier-box. This base plate or frame firmly supports the purifier.

The topmost joint, section, or chamber *f* has near its upper edge vent-openings *j*, and a cover *k*, like a cap, closes the top, but leaves the opening *j* exposed.

It will now be seen that the purifier may extend upward as high as may be desired, for the reason that any number of joints or sections may be employed, one resting upon the other. It is believed that terra-cotta will be a good material for these joints or sections.

In the operation of the device the flap *c* will prevent the sewer-gas escaping from the sewer at the water-inlet. The gas is free to pass up the flue *d* and into the lowermost joint or section *f*. The gas passes up the passage *h* at one side over the purifying agent *i* and then up the next passage *h* at the other side, and so on to the top, and finally escapes to the atmosphere at the openings *j*.

It is to be understood that Fig. 1 of the drawings is illustrative merely of one form of applying the improved deodorizer and purifier to drain-pipes or sewers. Obviously the arrangement of the parts may be varied to adapt them to different conditions. A purifier of this character may be applied to soil-pipes and any pipe which conducts noxious gases.

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

1. The combination with a sewer, drain or other pipe containing noxious gases, of an inlet provided with a flap; a vent-passage from said sewer, drain or pipe; and a vent and purifier comprising a plural number of sections or chambers resting one upon the other—each section having an internal shelf and a vent-passage, the said vent-passages in the several sections being alternately on opposite sides of the purifier.

2. The combination with a sewer, drain or other pipe containing noxious gases, of a vent and purifier comprising a plural number of sections or chambers resting one upon the other—each section having an internal shelf and a vent-passage, the said vent-passages in the several sections being alternately on opposite sides of the purifier.

3. The combination of a plural number of sections or chambers each section or chamber having a flange to make a union with the next section or chamber on which it is superimposed; an internal shelf in each section or chamber having at one side a vent-passage; the upper section or chamber provided in its

side walls with vent-openings, and a cap closing the top of said upper section or chamber.

4. The combination with a sewer, drain or other pipe containing noxious gases, of a vent-
5 passage from said sewer, drain or pipe; a base-frame having three flanges one of which enters the said vent-passage; and a vent-purifier comprising a plural number of sections resting one upon the other and the lower-
10 most one resting on one of said base-flanges

and receiving within its end the other flange; and an internal shelf in each section and a vent-passage at one side thereof.

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

GEORGE W. EVANS.

Witnesses:

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