

(No Model.)

W. F. WOLFE.
VENTILATOR.

No. 521,561.

Patented June 19, 1894.

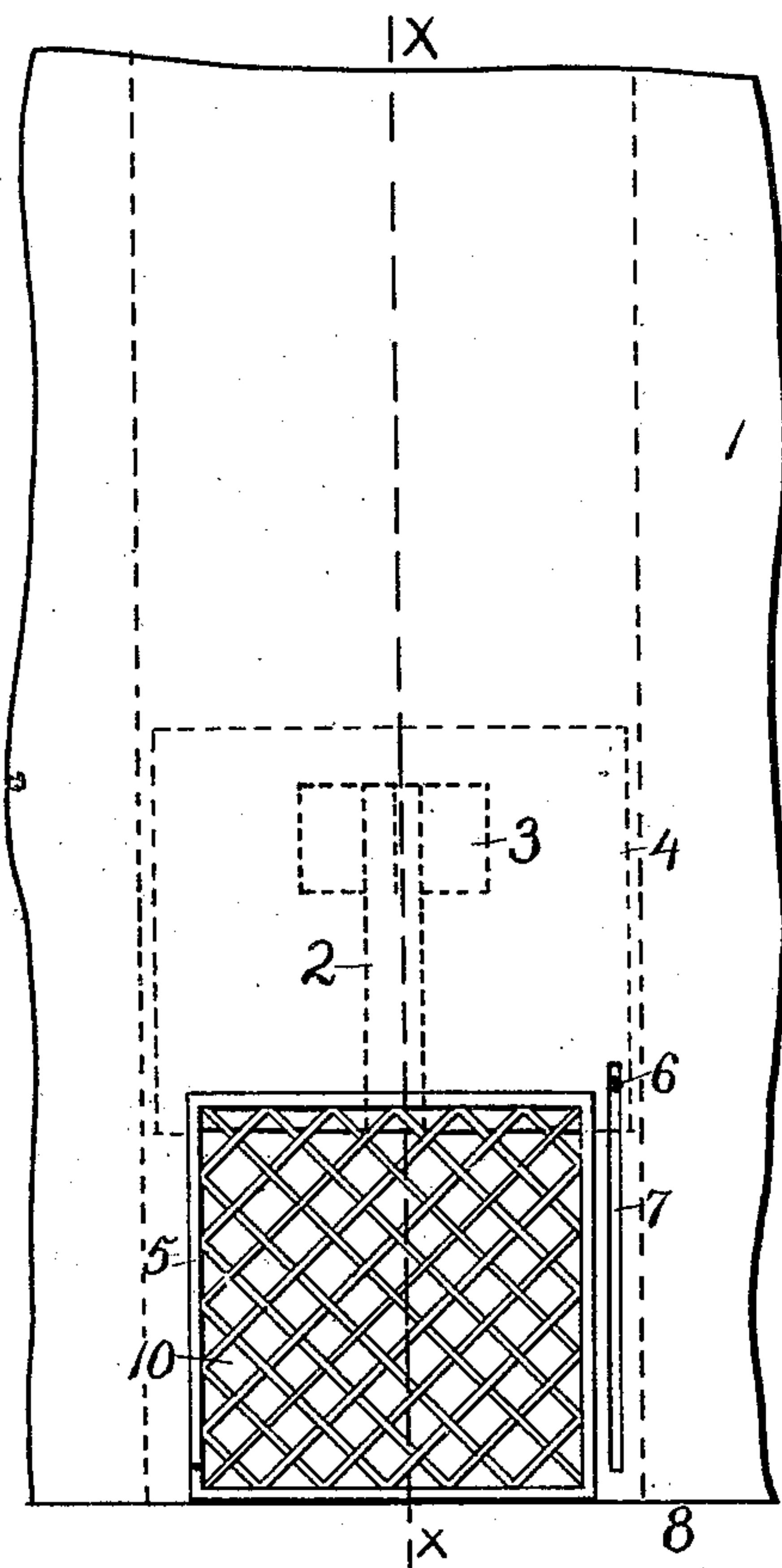


Fig. 1.

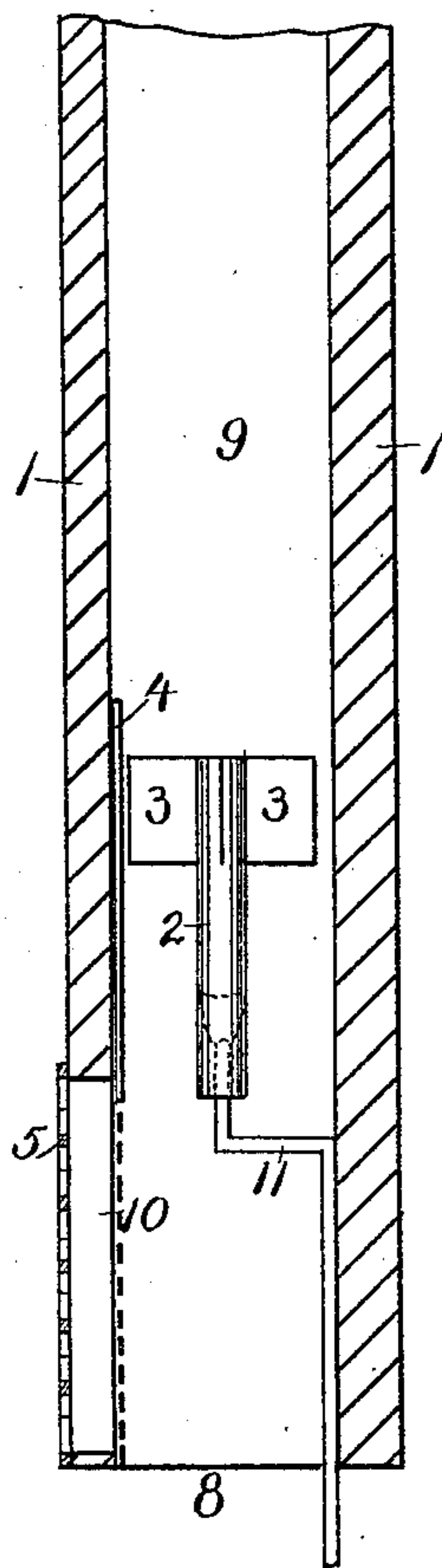


Fig. 2.

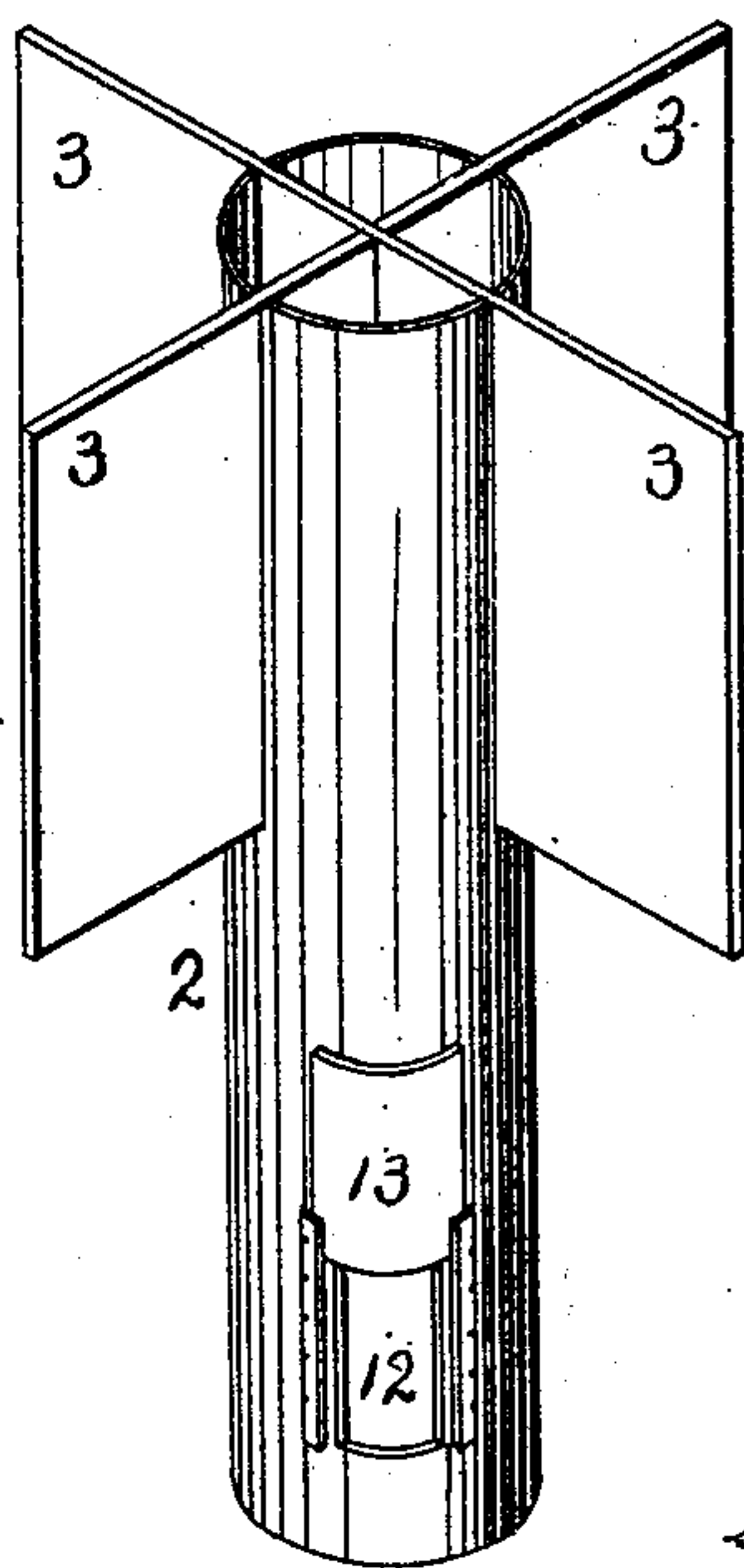


Fig. 3.

Witnesses.

E. H. Granger

Inventor
W. F. Wolfe,
by his Attorneys,
Howe & Kellogg

UNITED STATES PATENT OFFICE.

WILTSIE F. WOLFE, OF NEWTON, MASSACHUSETTS.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 521,561, dated June 19, 1894.

Application filed August 10, 1893. Serial No. 482,862. (No model.)

To all whom it may concern:

Be it known that I, WILTSIE F. WOLFE, a citizen of the United States, residing in Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Ventilators, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of ventilating flues in which a burner or jet is used for creating a draft to effect the ventilation.

It consists of a simple and economical construction of radiator to be used in connection with the burner whereby a small flame may be employed, a large amount of the heat evolved utilized, a large extent of heated surface obtained to cause the draft and the least resistance possible offered thereto by the radiator, substantially as herein described and particularly claimed.

In the drawings referred to, Figure 1 is a view in elevation of a part of a ventilating flue, showing the entrance to the same and the slide for closing said entrance. Fig. 2 is a sectional view on the line X, X, Fig. 1, showing the device in position, and Fig. 3 is an isometrical view of the device.

In the several figures, like numerals refer to like parts.

Referring to the drawings, 1 1 are the walls of the flue.

2 is the radiator, which consists of a tube or chimney open at both ends and preferably of metal, as, for example, sheet copper, and fitted to set over, and receive the heat from a suitable flame, as, for example, a gas jet or lamp. Suitably attached to this tube or chimney are two plates intersecting each other at the longitudinal axis of the tube forming wings —3— and preferably composed of the same material as the tube; the tube and wings being thus arranged in vertical planes so as to offer the least resistance possible to the draft.

4 is a slide by means of which the entrance —10— to the flue —9— may be partly or wholly closed, thus regulating the amount of air passing into the flue.

5 is a grating which may be placed over the opening to the flue if desired, in order to prevent papers and other articles from being drawn into the flue with the current of air.

6 is a knob moving in the slot —7— and at-

tached to the slide —4— for regulating the position of the slide.

11 is a pipe for supplying gas.

12 is an opening in the chimney for convenience in lighting the flame, and 13 is a slide for closing this opening.

The operation of my invention is as follows:—The tube or chimney —2— being placed in position to receive the heat from a lighted gas jet or other suitable flame the flame will heat the chimney and the heated products of combustion will strike against and heat the parts of the plates or wings within the tube and thereby more completely utilize the heat given off by the flame. These parts of the wings will also retard the passage of the gases and thus retain the heat within the tube and about the inner edges of the plates. In this way a much larger heated surface is presented to the action of the air and the least resistance to the movement of the air is offered, and consequently a greater amount of air is heated and a stronger draft created in the flue than would otherwise be possible, thus affording means for removing a large amount of air in a given time with a small flame from the apartment to be ventilated.

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

1. The combination with a ventilating flue having a burner therein, of a vertically arranged tube 2 over said burner open at both ends and having wings 3 lying in vertical planes and extending on the inside of and within the tube, substantially as shown and described.

2. The herein described radiator for ventilating flues comprising tube 2 open at both ends, and wings 3 secured to said tube arranged in planes parallel or co-incident with the longitudinal axis of the tube and extending on the outside of and within the tube, substantially as shown and described.

In testimony whereof I have hereunto subscribed my name this 8th day of August, A. D. 1893.

WILTSIE F. WOLFE.

Witnesses:

G. D. ROBERTSON,
CHAS. A. KELLOGG.