

B. J. BURNETT.

Ventilator.

No. 52,527.

Patented Feb. 13, 1866.

Fig. 2.

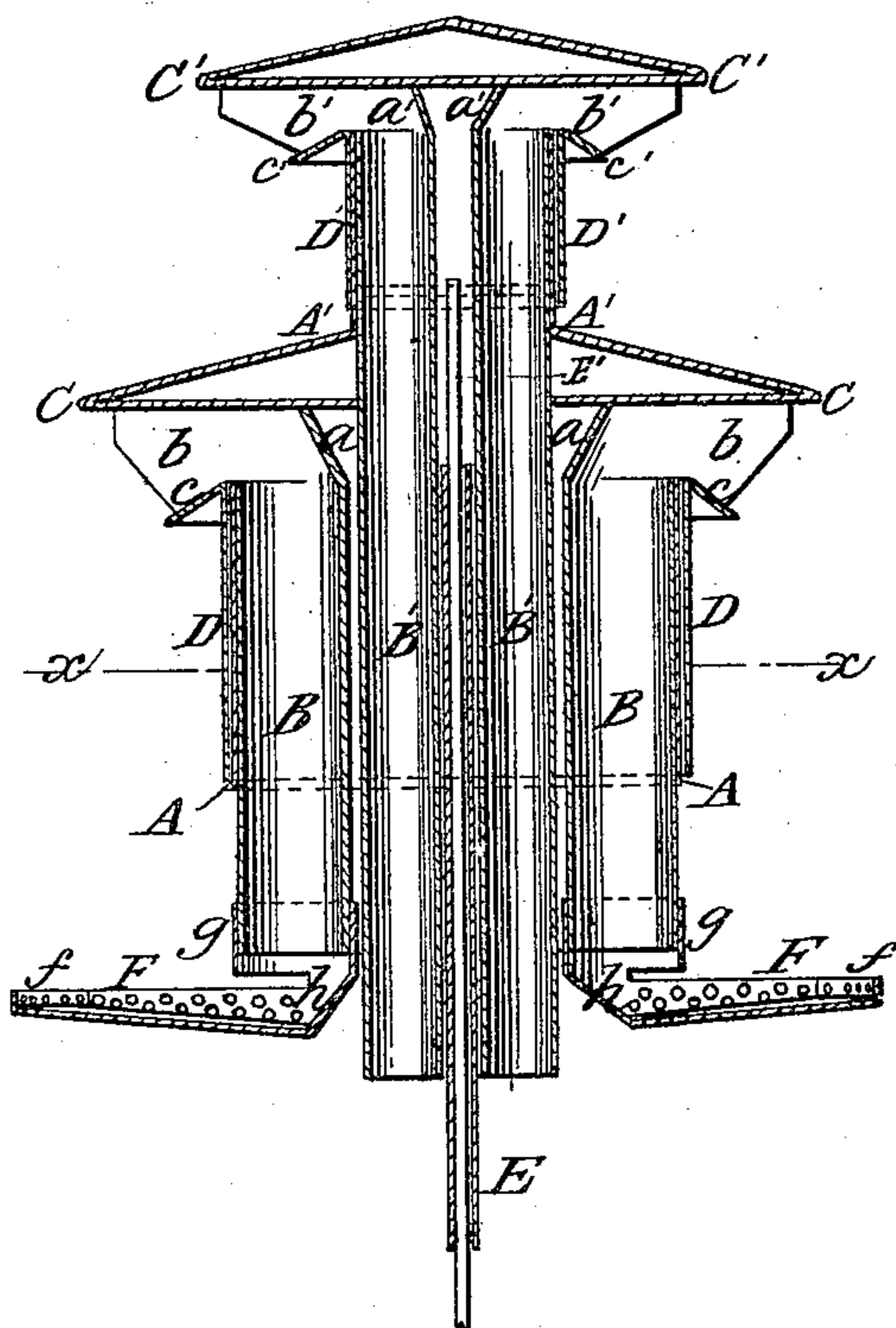


Fig. 1.

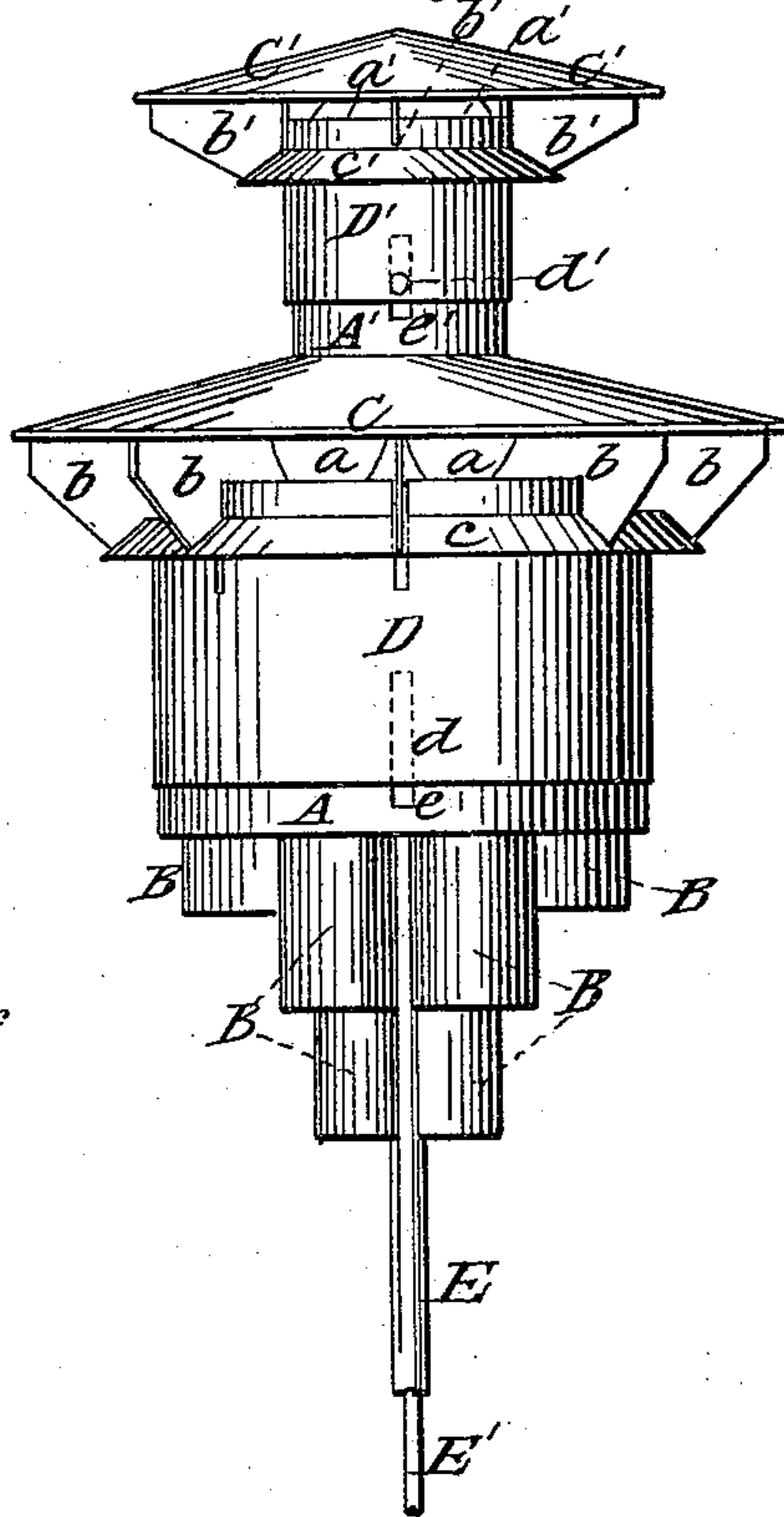


Fig. 3.

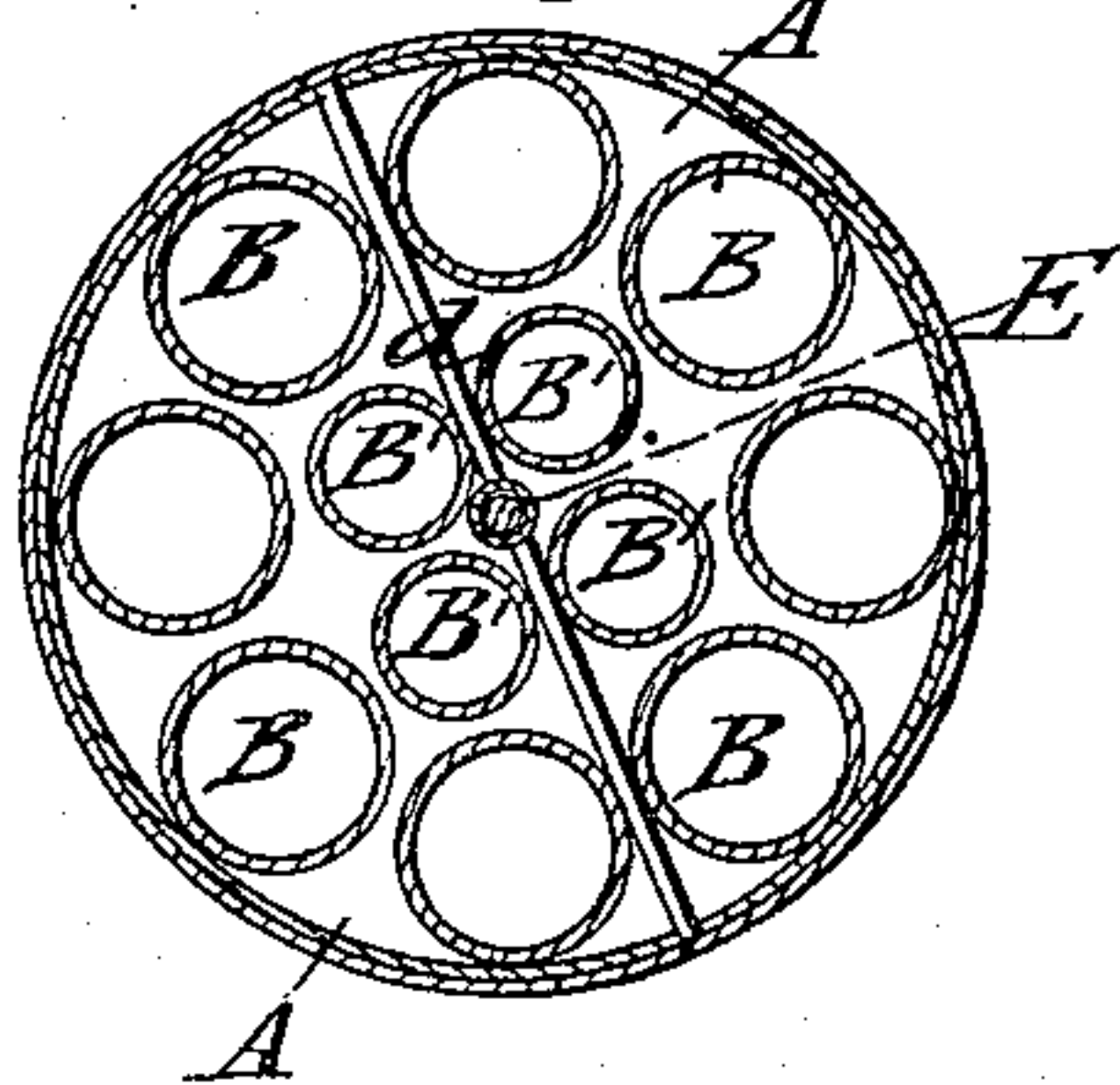
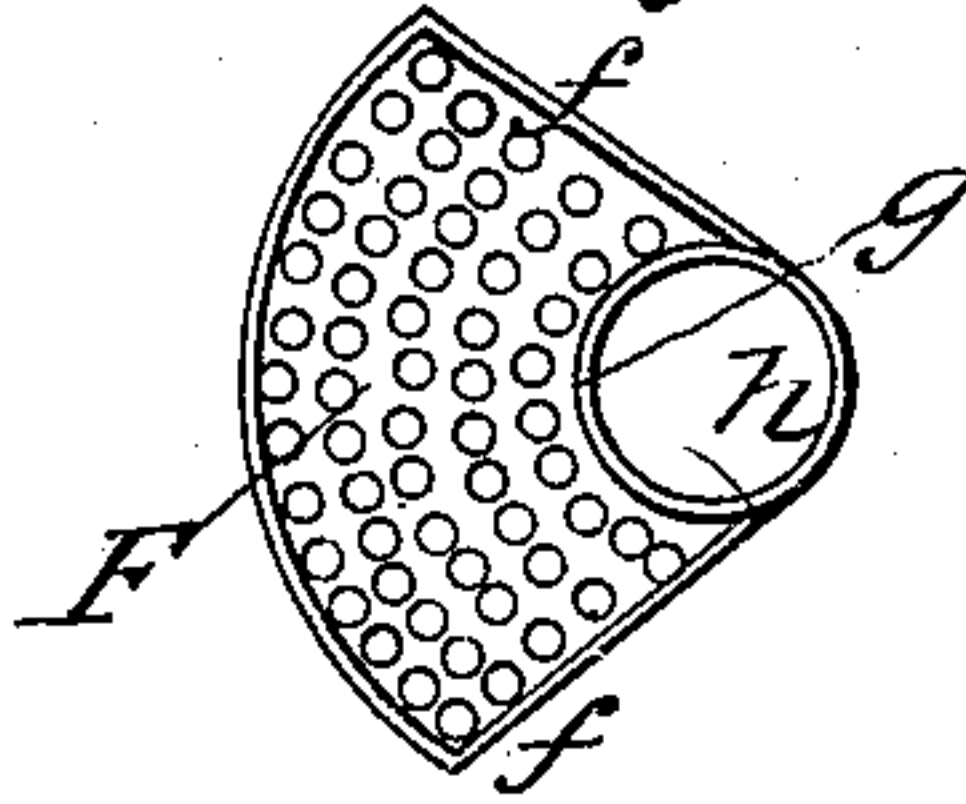


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

BENAJAH J. BURNETT, OF MOUNT VERNON, NEW YORK.

VENTILATOR.

Specification forming part of Letters Patent No. 52,527, dated February 13, 1866.

To all whom it may concern:

Be it known that I, BENAJAH J. BURNETT, of Mount Vernon, in the county of Westchester and State of New York, have invented a new and useful Improvement in Ventilators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of a ventilator constructed according to my invention. Fig. 2 is a central vertical section of the same. Fig. 3 is a horizontal section of the same in the plane indicated by the line *xx* in Fig. 1. Fig. 4 is a plan of one of the air-distributers.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to ventilators to be applied to the roofs of houses and other structures, and more particularly to those constructed on the plan which is the subject of the first clause of the claim of my Letters Patent No. 45,814, dated January 10, 1865; and it consists in an improved construction of such ventilators, whereby greater facility is afforded for the ventilation of the different floors or stories of a building; also, in improved means of regulating the quantity of air passing through the ventilator; and, further, in an improved system of air-distributers in such ventilators.

To enable others skilled in the art to apply my invention to use, I will proceed to describe it with reference to the drawings, which represent a ventilator for ventilating different stories of a building.

A is an upright trunk, of cylindrical or other suitable form and of sheet metal or other suitable material, which is intended to be fitted and firmly secured to an opening of suitable size in the roof of the building. To the interior of this trunk there are secured, close together or at suitable distances apart, a series of upright tubes, B B, of metal or other material, which serve as the ventilating-passages for the upper story of the building, the said tubes being open at the top to the outer atmosphere, and at the bottom to the story to be ventilated. These tubes have secured to the inner sides of their upper edges inclined deflectors *a a*, between which there are radial

partitions *b b*, corresponding with the number of tubes. The said deflectors and partitions connect the said tubes and the trunk A with an overhanging cap, C. Around the upper edge of the trunk A there is a flange, *c*, which projects outward and inclines downward to facilitate the entrance of fresh air under the cap and into the tubes B B on the windward side or sides of the ventilator. The air so entering strikes the deflectors *a a*, and is so conducted downward into the tubes, from the lower ends of which it enters the building, forcing out the vitiated air upward through the opposite tubes, as in my patented ventilator hereinbefore referred to.

The tubes B B may be of different length, so that some may serve for the ventilation of the highest story or loft of the building, and others for the ventilation of the story next below.

The cap C has a central opening, in which is secured an upper upright trunk, A', around the interior of which there are arranged, close together or at suitable distances apart, an inner series of tubes, B' B', which extend downward within the outer series of tubes, B B, into the story or stories below that one or the lower one in which the latter terminates for the ventilation of said story or stories below. These tubes B' B' are furnished at their upper ends with deflectors *a' a'*, and have between them partitions *b' b'* like the deflectors and partitions of the tubes A A, and the said tubes A' A' and their surrounding trunk B' are furnished with a cap, C', and inclined flange *c'* like the cap C and flange *c* of the outer series of tubes and lower trunk. The tubes B' B' admit the fresh air and permit the escape of the vitiated air from the lower story or stories in the same manner as B B admit fresh air and permit the escape of vitiated air from the story or stories above.

The trunk A is fitted externally with a sliding sleeve or shutter, D, of cylindrical or other corresponding form, for the purpose of closing, or partly closing, the space between the upper ends of the tubes B B and the cap C, and thereby preventing or regulating the ingress or egress of air into and from the building. The trunk A is similarly fitted with a similar sleeve or shutter, D', for the same purpose.

The sleeve or shutter D is connected by a

transverse bar, *d*, passing through upright slots *e e* in the trunk A, with a tube or hollow rod, E, which passes down through the center of the ventilator for the purpose of operating the said sleeve or shutter from the interior of the building. The sleeve or shutter D' is similarly connected by a transverse bar, *d'*, passing through upright slots *e' e'* in the trunk A, with a rod, E', which passes through the tube or hollow rod E, for the purpose of operating the said sleeve or shutter from the interior of the building.

The rods E E' may be connected together to operate the two shutters simultaneously, or may be unconnected and operated independently of each other.

F F, Figs. 2 and 4, are the air-distributers, which may be attached, one to each of the tubes B B', for the purpose of distributing or diffusing through the apartments of the building the air admitted through the tubes. These distributers consist of perforated plates with turned-up rims *f f*, having attached to them sockets *g g*, which serve to connect them with the lower ends of the tubes, and they are provided with inclined deflectors *h h*, which serve to deflect the air outward from the tubes and direct it through the distributers.

The ventilator may be made with any number of series of tubes, B B, arranged one series

within another, and each series connected with a separate trunk and cap.

The same construction of ventilator is applicable to hats. For this purpose all the tubes may be of one length, and all combined with one cap and series of deflectors.

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

1. A ventilator having its air-passages composed of tubes arranged around the interiors of surrounding trunks, and furnished with caps and deflectors, substantially as herein specified.

2. The arrangement, in one ventilator, of two or more series of tubes with separate surrounding trunks and caps for ventilating different floors or stories of a house or other structure, substantially as herein specified.

3. The sliding external sleeves or shutters, in combination with the trunks, tubes, and caps, substantially as and for the purpose herein specified.

4. The perforated air-distributers constructed with deflectors and combined with the lower ends of the tubes of the ventilator, substantially as herein set forth.

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Witnesses:

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