

No. 829,817.

PATENTED AUG. 28, 1906.

W. F. WARDEN.

VENTILATOR.

APPLICATION FILED NOV. 18, 1905.

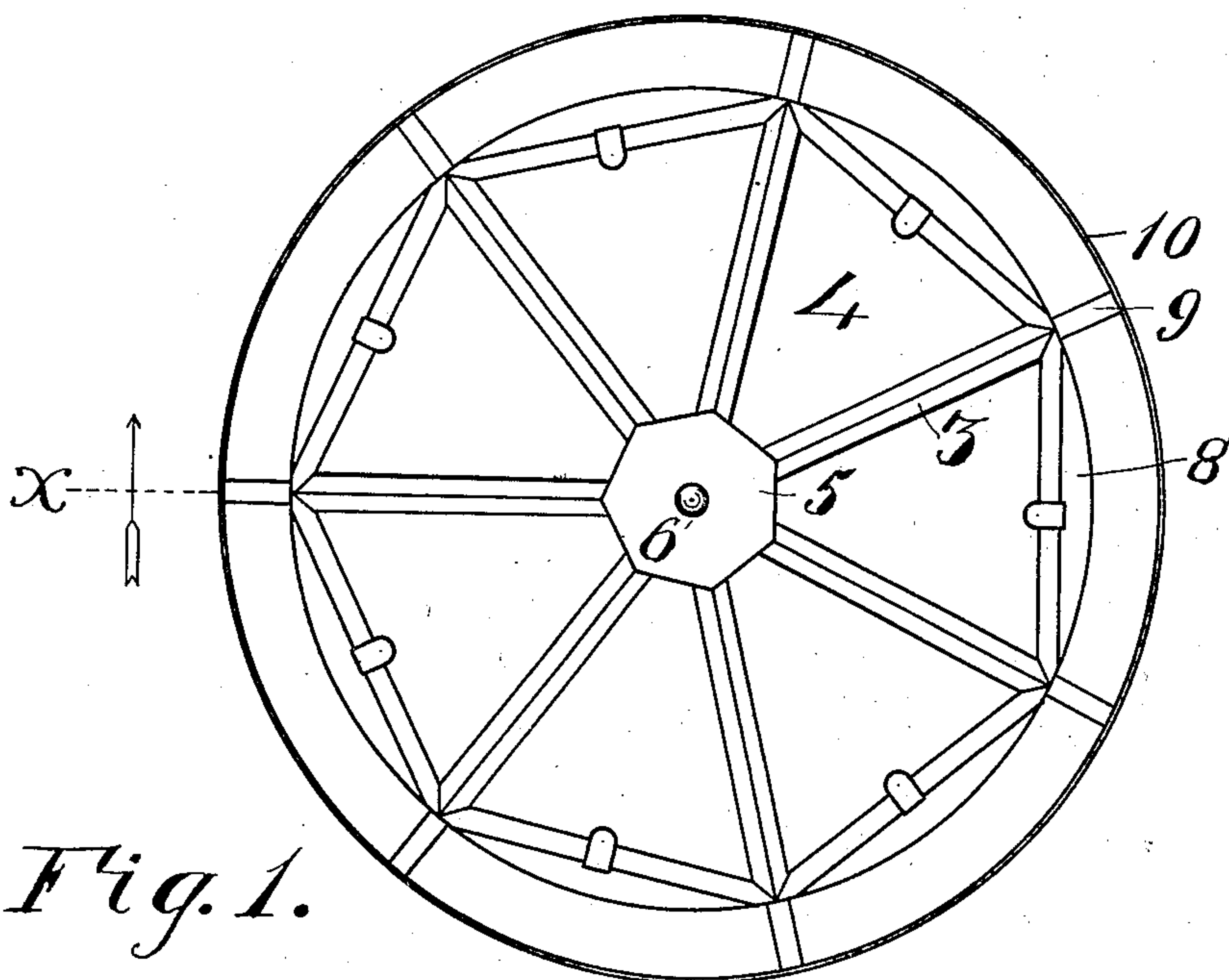


Fig. 1.

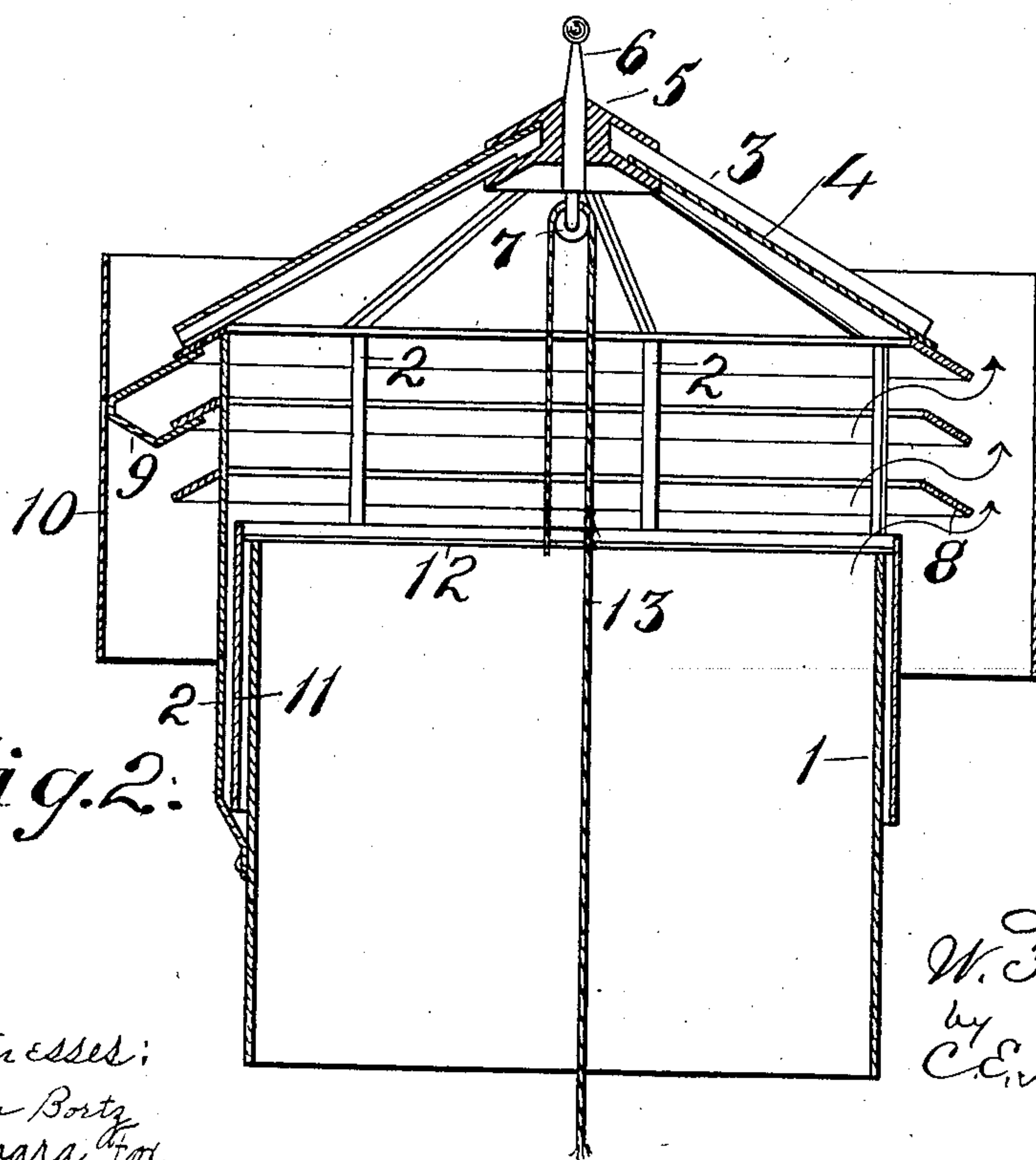


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM F. WARDEN, OF AKRON, OHIO.

VENTILATOR.

No. 829,817.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed November 18, 1905. Serial No. 287,977.

To all whom it may concern:

Be it known that I, WILLIAM F. WARDEN, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Ventilators, of which the following is a specification.

My invention relates to ventilators of the type shown in United States Letters Patent, granted to Fred M. Harpham and Alfred Akers, July 2, 1901, No. 677,512; and the object thereof is to so construct a device of the type described as to increase its efficiency as a ventilator and materially lessen the liability of the entrance of rain or snow through it to the interior of the structure on which it is used.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts constituting the invention to be hereinafter referred to and illustrated in the accompanying drawings, which form a part of this specification, in which is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings, in which similar reference-numerals indicate like parts in the different figures, Figure 1 is a plan view of my improved ventilator, and Fig. 2 is a vertical section of the same at the line X.

Referring to these figures, 1 is the flue proper, which is intended to be securely retained in the roof of the inclosure which it is desired to provide with ventilating means. This flue is usually made cylindrical and of sheet metal. Attached, preferably, to the outside of this flue near its top are a series of upwardly-extending posts 2. Mounted upon these posts 2 is a conical roof, consisting of radial bars 3, between which are preferably supported panes of glass 4. In the center of this roof is a cap 5, in the center of which is a post 6, to the lower end of which is suitably mounted a pulley 7. Supported on and surrounding the posts 2 are a plurality of annular louvers 8, to which are attached brackets 9, the outer projecting ends of which are adapted to be fastened to and support an annular shield 10.

Surrounding the flue 1, concentric therewith and free to move vertically, is a sleeve 11, having preferably extending across its

upper portion a bar 12. Attached to the bar 12 is a cord or small rope 13, which passes around the pulley 7 and down into the apartment below. By drawing the rope 13 the sleeve 11 will be raised and close the opening between the flue and its roof or so much thereof as may be needed to regulate the escape of air from the interior of the structure.

When the sleeve 11 is lowered, the lower edge thereof may rest upon the intumed portions of the posts 2, or it may be sustained by the engagement of the cross-bar 12 with the top of the flue 1.

In placing the sleeve 11 outside of the flue 1 any rain or melted snow which is driven through the space intervening between the louvers 8 is arrested and the drip therefrom will be outside of the flue onto the roof of the building in which the ventilator is used, thereby effectually preventing any leakage of this type of ventilator during heavy wind accompanied by either rain or snow.

It frequently happens during snow and rain storms that the snow is driven either upward or downward through the opening in the shield 10 in such a manner as to pass between the louvers 8 and beat against the means placed to close the opening intervening between the top of the flue 1 and the roof, and the drip from either rain or melted snow will when the sleeve 11 is placed outside of the flue 1 be kept from entering the interior of the flue itself.

It is further obvious that the placing of the sleeve 11 outside of the flue also leaves the interior thereof unobstructed, whereby its efficiency as a ventilator is greatly increased.

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

1. In a ventilator, the combination of a flue, a roof therefor suitably spaced therefrom, a vertically-movable sleeve surrounding said flue and adapted when moved in one direction to close the space between the flue and the roof, thereby arresting entrance of any foreign matters to the flue from the outside, and means engaging with said sleeve for vertically moving it.

2. In a ventilator, the combination of a flue, a roof therefor suitably spaced therefrom, a vertically-movable sleeve surrounding said flue and adapted when moved in one direction to close the space between the flue and roof, thereby arresting entrance of any foreign matters to the flue from the outside,

a member connected to said sleeve and of such length as to extend over the top of the flue, said member constituting a stop for the sleeve, and means connected with the member for vertically moving the sleeve.

3. A ventilator comprising a flue, a roof arranged over the flue and separated therefrom so as to form a space between the roof and the flue, a vertically-movable sleeve surrounding the flue and adapted when moved in one direction to close the space between the roof and the flue, thereby preventing the

entrance of any foreign matters to the flue from the outside thereof, means for arresting the movement of the sleeve in one direction, and means for vertically moving the sleeve. 15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM F. WARDEN.

Witnesses:

C. E. HUMPHREY,
GLENARA FOX.