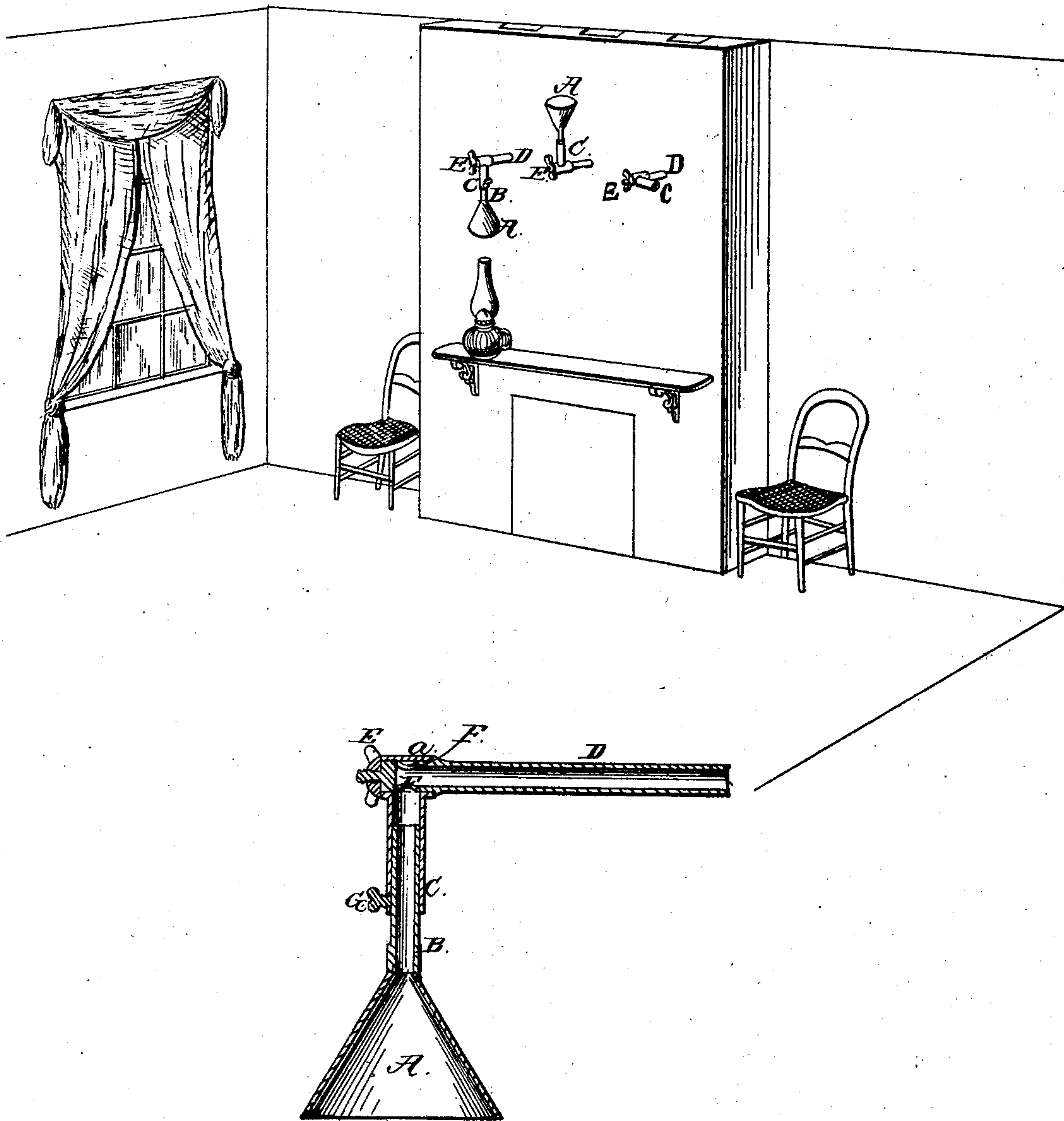


*A. Hurff,*  
*House Ventilator.*

*No 81,091.*

*Patented Aug. 18, 1868.*



*Inventor:*

*Aaron Hurff*  
*by Corby Hallett & Jones*  
*Attys.*

*Witnesses:*  
*Wm. A. Barnack.*  
*Philip J. Corn Jr.*

# United States Patent Office.

AARON HURFF, OF SWEDESBORO, NEW JERSEY.

*Letters Patent No. 81,091, dated August 18, 1868.*

## IMPROVEMENT IN VENTILATORS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, AARON HURFF, of Swedesboro, in the county of Gloucester, and State of New Jersey, have invented certain Improvements in Foul-Air Ventilators; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The object of my invention is to provide a simple and efficient means by which apartments, in which lamps are used, (and especially those burning camphene and other fluids, which, in burning, give off much smoke or offensive odor,) may be readily ventilated.

My invention consists in providing, in connection with an outlet-pipe for conveying away the foul air, an adjustable and removable funnel, and which is so arranged, in relation to the outlet-pipe, that it may be swung into position for use, or out of position when not in use, and, also, may have its opening closed by merely changing the position of the parts.

In the drawings—

Figure 1 represents an apartment in which my device is shown applied to an opening in the chimney, and to receive the fumes of a lamp placed on the mantel.

Figure 2 represents a longitudinal section of the same on a larger scale.

The middle representation of my apparatus in fig. 1 shows the same when it, with the funnel, is turned up out of the way, and the right-hand representation shows it with the funnel removed, and the outlet-tube closed, as hereinafter explained.

A is a funnel-shaped piece of tin, or other appropriate metal, having thereon a tubular part, B.

C is another tubular piece, of sufficient diameter to admit snugly the tube B, and to which it may be held by a thumb-screw, or otherwise.

The upper part of tube C, I prefer to make with a short sleeve or tube,  $\alpha$ , placed at right angles to it, and with its bore opening into it. This sleeve is made to fit upon one end of another tube, D, which latter is designed to be inserted into the opening prepared for it in the wall, or chimney, or partition, or other place, in such manner as to convey away from the apartment any impurities which enter the funnel.

E is a thumb-nut, which fits a thread upon the plug or cap upon the end of tube D, and which thus serves to hold firmly the part C to the part D, and so to make a close joint, as well as to insure the sustaining of C in whatever position it may be placed about D as a centre.

F F are valve-openings in that part of tube D which is confined within the sleeve  $\alpha$ , and which serve to afford an unobstructed outlet for the foul air from the room whenever the opening in tube C coincides with one of such openings or passages, but not otherwise.

G is a thumb-screw, which allows the funnel to be removed from or held securely to the tube C.

The operation is as follows:

The parts being arranged, as shown in figure, and applied to any suitable opening previously prepared for in the wall of the apartment, the lamp is placed beneath it, upon a table, mantel, or other piece of furniture, the vertical adjustment of the funnel permitting its adaptation to the lamp, whether the latter be standing in a high or low position. The tube D, by being placed more or less into or through a wall or partition, also admits of a range of horizontal adjustment relatively to the location of the lamp. The turning of the sleeve  $\alpha$  upon tube D not only permits the pendent parts to be swung up out of the way when not in actual use, but also, by turning the same a portion of the way around, as, for instance, a quarter circle, as shown in the right-hand sketch in fig. 1, insures the closing up of the outlet by causing the sleeve to cover the valves or orifices F F in tube D.

This apparatus is particularly serviceable in sick-chambers, or wherever lamps are required to be burned all night.

It is evident that the whole may be removed from the wall and laid aside until wanted for use, and then applied at a moment's notice.

It will also be perceived that by my mode of constructing and connecting the several parts, they may all be taken apart for convenience of packing and transportation, and can as readily be put together again.

I claim a ventilator having a swinging foul-air-pipe, combined with an outlet or discharge-pipe, substantially as and for the purpose described.

I also claim the above in combination with an adjustable funnel, substantially as and for the purpose described.

AARON HURFF.

Witnesses:

ABSALOM LEAP,  
HENRY C. GARRISON.