

(No Model.)

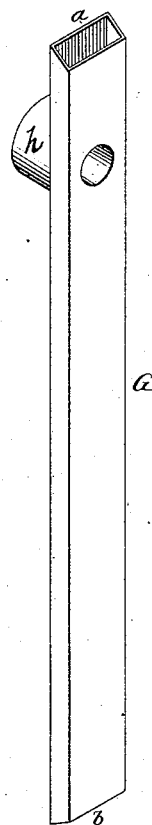
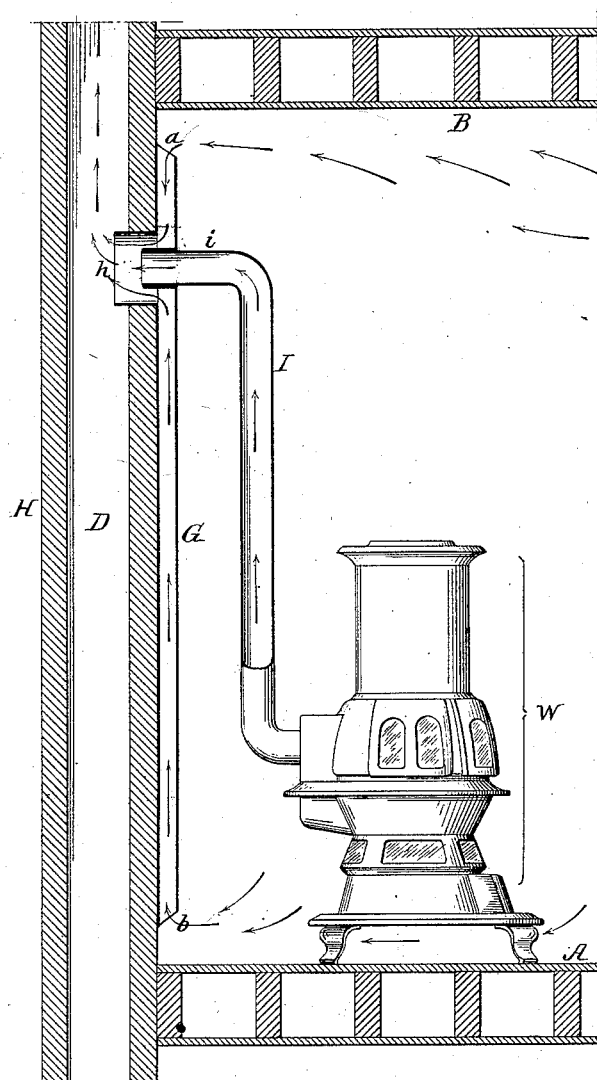
H. N. WICKERSHAM.  
VENTILATING APPARATUS.

No. 305,365.

Patented Sept. 16, 1884.

FIG. 1.

FIG. 2.



Witnesses—  
John C. Parker  
James F. Tobin

Inventor  
Henry N. Wickersham.  
By his Atty.  
Howson & Sons

# UNITED STATES PATENT OFFICE

HENRY N. WICKERSHAM, OF WILMINGTON, DELAWARE.

## VENTILATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 305,365, dated September 16, 1884.

Application filed March 10, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY N. WICKERSHAM, a citizen of the United States, and a resident of Wilmington, New Castle county, Delaware, have invented certain Improvements in Ventilating Apparatus, of which the following is a specification.

My invention consists of apparatus, fully described hereinafter, whereby a stove or heater is caused to direct to a chimney rarefied air from the upper portion of an apartment and heavy vitiated air from the lower portion of the same.

In the accompanying drawings, Figure 1 is a section of part of a building, showing a stove and ventilating apparatus; and Fig. 2, a detached perspective view of the ventilating-pipe.

A is the floor of an apartment, containing the stove W; B, the ceiling, and D the chimney-flue in the wall H. A pipe, G, preferably of the quadrangular form shown in Fig. 2, is secured to the wall at the rear of the stove, and communicates both at its upper and lower ends with the interior of the apartment, the upper inlet, *a*, of the pipe being near the ceiling B, and the lower inlet, *b*, near the floor A. A branch, *h*, extends from the rear of the ventilating-pipe G through the wall into the flue D, and the upper end *i* of the stove-pipe I fits into and projects through the front of the ventilating-pipe and extends a short distance into the branch *h*. The branch *h* should al-

ways be so much larger than the stove-pipe that there may be a free communication through the said branch between the ventilating-pipe and the chimney, and in order to produce the best effect the space between the stove-pipe and the branch should have an area about equal to the combined areas of the two inlets of the ventilating-pipe G.

When the stove is in operation, there will be an induced upward draft, as well as an induced downward draft, through the ventilating-pipe, as indicated by the arrows, and the consequence will be that the heavy vitiated air near the floor of the apartment, as well as the lighter foul air near the ceiling, will be carried off to the chimney.

I claim as my invention—

The combination of an apartment in a building, a stove or heater therein, and a chimney with a ventilating pipe or passage, G, having an upper inlet, *a*, near the ceiling, a lower inlet, *b*, near the floor, and a branch, *h*, communicating with the chimney, into which branch the pipe of the stove projects, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY N. WICKERSHAM.

Witnesses:

JOHN CLAYTON;  
HARRY SMITH.