(No Model.)

E. K. BLAIKIE.

VENTILATING BUILDINGS.

No. 418,305. Patented Dec. 31, 1889.

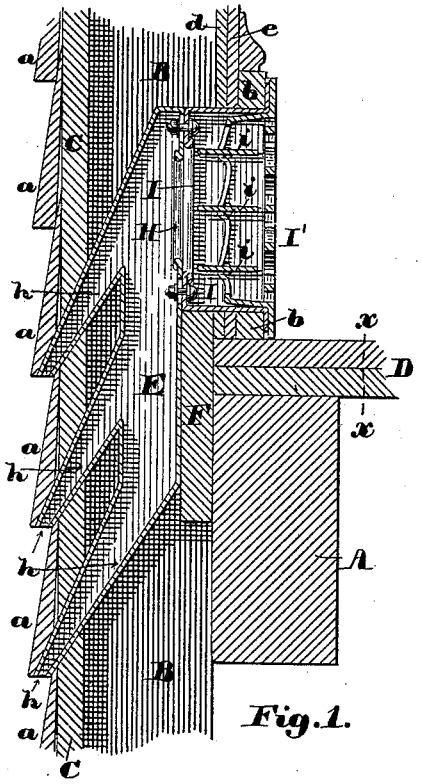

Fig. 1.

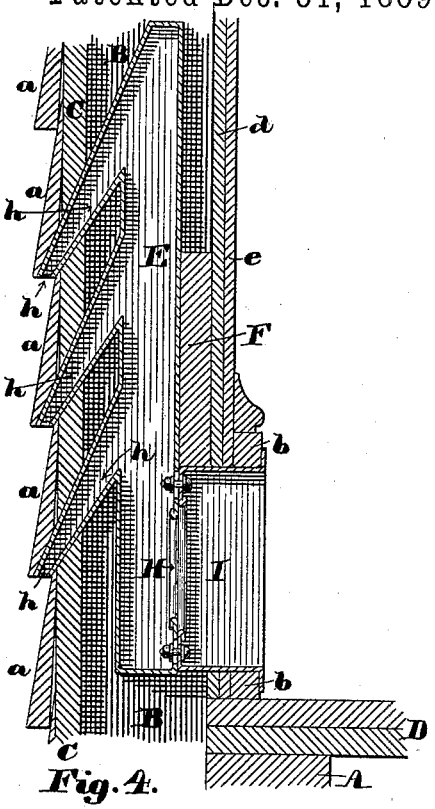

Fig. 4.

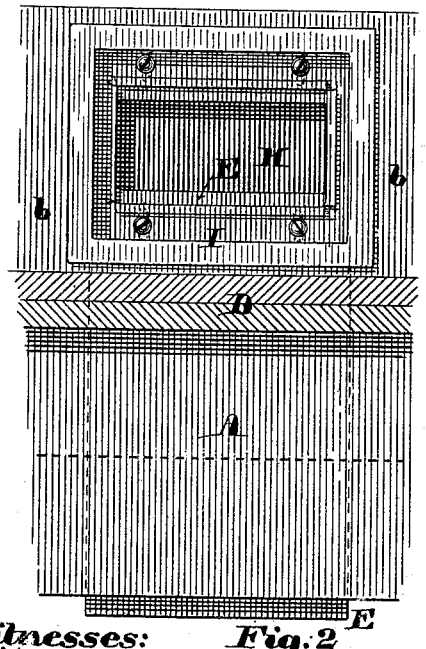

Fig. 2

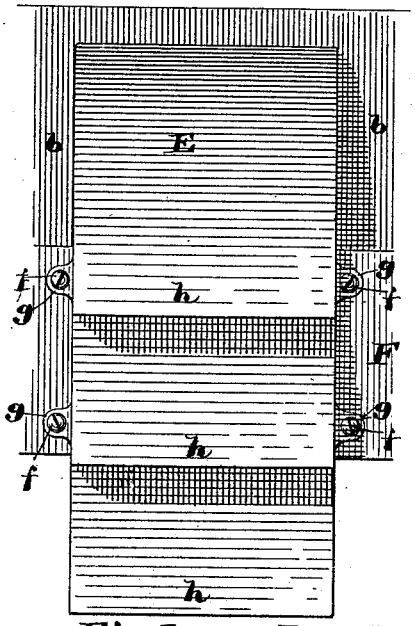

Fig. 3.

Witnesses:
Walter E. Lombard
Geo. A. Sewall

Inventor.
Edwin K. Blaikie,
by N. C. Lombard Attorney.

UNITED STATES PATENT OFFICE.

EDWIN K. BLAIKIE, OF SOMERVILLE, MASSACHUSETTS.

VENTILATING BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 418,305, dated December 31, 1889.

Application filed March 25, 1889. Serial No. 304,664. (No model.)

To all whom it may concern:

Be it known that I, EDWIN K. BLAIKIE, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Ventilating Buildings, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a device for ventilating buildings, and more especially to the admission of cold or fresh air to the various rooms in the building; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description and the drawings and to the claim to be hereinafter given, and in which my invention is clearly pointed out.

Figure 1 of the drawings is a vertical section of a small portion of a wall and the second floor of a wooden building with my improved ventilator applied thereto. Fig. 2 is a sectional elevation of the same, the cutting plane being on line *x x* on Fig. 1, with the grating and valves of the register removed. Fig. 3 is an elevation of the ventilator-casing, looking inward, with the clapboards and boarding removed; and Fig. 4 is a similar view to Fig. 1, but designed for use for admitting air to a room on the ground-floor of a wooden building and near the floor.

In the drawings, A A are floor-timbers; B, a stud of the outer wall; C, the boarding; D, the floors; *a a*, the clapboards; *b*, the base-board; *d e*, the laths and plastering.

E is a rectangular tube, made preferably of metal and arranged between the boarding and lathing, the same being secured in position by screws *f f*, passing through ears *g g* on said tube and screwed into the board F, fitted between and secured to two adjacent studs B and having one or more downwardly-inclined branch tubes *h h*, preferably rectangular in cross-section, but gradually contracting in vertical thickness toward their lower ends, which lower ends occupy horizontal planes. These branch tubes project downwardly through the boarding C and through the inner lower corner of the clapboard, and are so located relative to each other and the clapboards that their lower ends are each flush with the lower edge of a clapboard, while at the same time their outer surfaces are covered and protected by the clapboards, as shown in Figs. 1 and 4.

The inner wall of the tube E has cut therein a rectangular opening H, which may be at or near the upper end of the said tube E, as shown in Fig. 1, or at or near the lower end of said tube E, as shown in Fig. 4, according to the place where it is to be used.

I is a short rectangular lining-tube adjustably secured to the tube E in position to surround the opening H and extending through the base-board or inner portion of the wall and opening into the room to be ventilated, said adjustment being to permit the tube E to be raised or lowered to bring the ends of the branch tubes *h h* to coincide with the lower edge of the clapboard or other projection.

I′ is a register-frame fitted within said lining-tube and secured to the base-board by screws in a well-known manner and provided with the pivoted valve-bars *i i* and a suitable ornamental grating, said register being of any well-known construction. The tube E, with its branches *h h* made in one piece, may be applied to brick or stone buildings by building the same into the wall in the course of laying the same, the outer ends of the branches opening through the wall between two courses of brick or stone, or preferably under the projection of a belt or band, the same as illustrated for wooden buildings.

By this construction and arrangement of air-supplying ducts or passages, in combination with a register for controlling the admission of air to the room, a very effective and sure means of furnishing fresh air to the rooms of a building is provided without in the least disfiguring the exterior of the building, the inlets being so arranged as to be completely hidden from ordinary observation.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination, with the wall of a building, of a ventilating-tube provided with an opening at its inner side and with a downwardly-inclined induction-tube at its outer side, said induction-tube extending through

the wall of the building and having a horizontal orifice and a clapboard or other projection covering the outer surface of said wall and the inclined outer projection of said induction-tube, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 19th day of March, A. D. 1889.

EDWIN K. BLAIKIE.

Witnesses:
N. C. LOMBARD,
WALTER E. LOMBARD.