(No Model.)

E. J. COLBY.

COMBINED STOVE PIPE THIMBLE AND VENTILATOR.

No. 418,783. Patented Jan. 7, 1890.

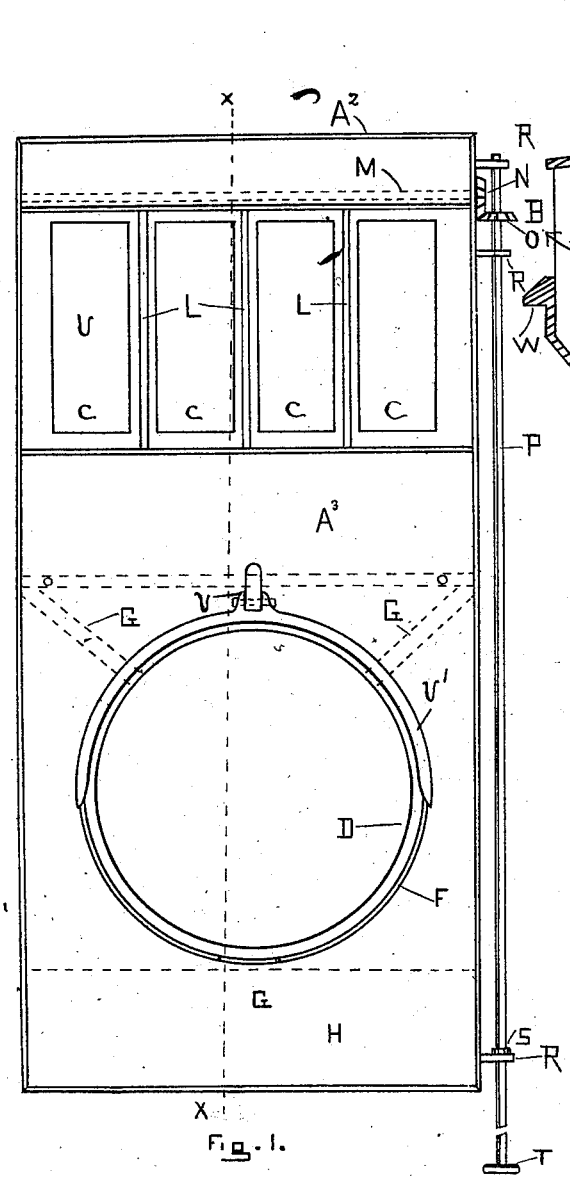

Fig. 1.

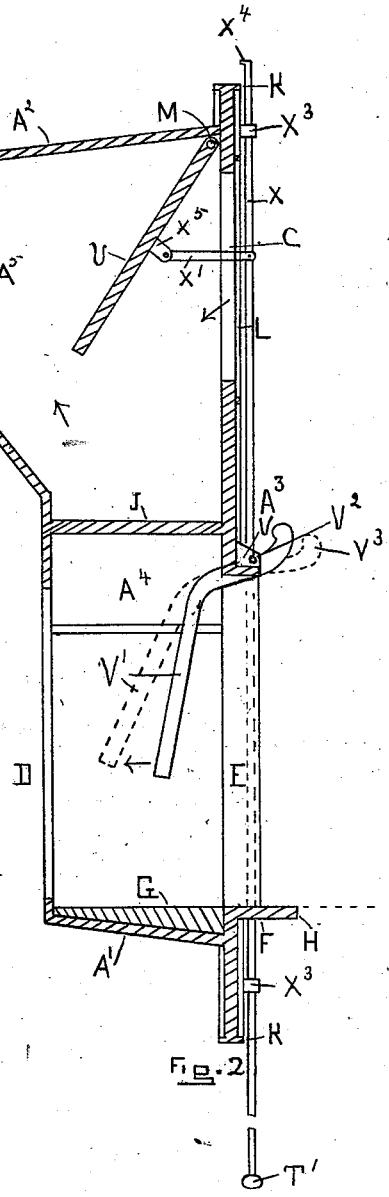

Fig. 2.

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COMBINED STOVE-PIPE THIMBLE AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 418,783, dated January 7, 1890.

Application filed December 4, 1888. Serial No. 292,651. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. COLBY, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Combined Stove-Pipe Thimbles and Ventilators, of which the following is a specification.

My invention relates to combined stove-pipe thimbles and ventilators, and has for its object to provide such a device of a cheap, simple, and applicable form.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a front view, and Fig. 2 is a vertical section with a modification.

Like parts are indicated by the same letter in both the figures.

A is a case having the inclined bottom A′ and top A^2, front A^3, lower chamber A^4, and upper chamber A^5. This latter chamber has the rear aperture B and front apertures C C. The lower chamber has the rear aperture D and front aperture E, the latter having a somewhat greater diameter than the former. About this aperture E is formed the flange F, and within the chamber A^4 and leading from the aperture E to the wall of the case about the aperture D are the guides G G. The flange F has a lower projection H. The chambers A^4 and A^5 are separated by the diaphragm J.

K is a bead about the front.

L are bars or bead-work across the front to separate the apertures C C.

M is a transverse rod in the upper part of the chamber A^5, journaled in the sides of the case and carrying at its outer end the beveled gear N, which meshes with the gear O on the rod P. This rod is supported in the bearings R R. This latter rod is provided with the collar S, to keep it from descending, and terminates below in the hand-wheel T, whereby it may be rotated in either direction. It is tightly journaled, so as to remain in the position to which it is turned and thus hold the flap U in any desired position.

V is a lug on the top of the flange F, to which is pivoted the binding-flap V′. At the lower edge of the aperture B is the guard-ledge W. The flap V′ is shaped as shown in Fig. 1, and is pivoted at the pivotal point V^2 to the lug V, and has an outwardly-projecting end V^3. The rod X is supported, so as to be vertically reciprocated in the bearings X^3 X^3, and has a lug X^4 at its upper end to limit its downward descent. Pivoted to this rod is a link X′, which is also pivoted to the lug X^5 on the flap U.

The use and operation of my invention are as follows: The device, constructed substantially as shown, is placed in a prepared aperture in the breast-wall of the flue, the front of the case A^3 being flush with the inside of the wall, and the rear wall of the chamber A^4 being about flush with the inside of the flue. The stove-pipe is inserted through the aperture E and chamber A^4, its lower edge resting upon the projection H and flange F, and being protected by the guides G G, and directed against the back wall of the chamber A^4 about the aperture D. The flap V′ is now dropped down into the position shown in Fig. 2 in full lines, where it encircles the upper part of the pipe and holds it securely in position. I call this a "pipe-securing flap." Now, when it is desired to operate the ventilator, the hand-wheel T, being turned, causes the rod P to turn, and thus the rod M to rotate and the flap U to move—as, for instance, in the position shown in Fig. 2. The products of combustion pass through the lower chamber A^4, as indicated by the figure, and the air which it is desired to remove from the apartment passes from the upper chamber A^5. The smoke getting into the flue is guarded away from the aperture B by the ledge W. The flap U operates as a sort of movable partition. The lower chamber A^4 does not in any manner connect with the upper chamber, so that no smoke can pass into the latter, and the lower chamber may be cleaned without interfering with the upper.

The flap V′ is adapted to encircle the upper side of the pipe and oscillates on its pivot, as indicated by the arrow in Fig. 2. Thus as the pipe is pushed in it gives away and moves in the direction indicated in the dotted lines. When the pipe is in position, it drops back or may be forced back into the position shown in full lines, where it securely holds the pipe, and any attempt or tendency to withdraw

the pipe has the effect of locking it more securely. When the appliance is so situated that the rod, which, with its gears, is shown in Fig. 1, cannot be used, I substitute therefor the construction shown in Fig. 2. The rod X is a vertically-reciprocating rod operated from below by the knob or hand-piece T′, and as it is raised the link X′ will tend to fall into the position parallel with the rod and thus permit the flap U to return, so as to close the aperture C. When the rod is drawn, as indicated in Fig. 2, the flap is thrown outward and the aperture is opened.

I claim—

1. In a combined stove-pipe thimble and ventilator, a case having a lower chamber open at both sides through which passes the stove-pipe; and an upper chamber open at both sides, in combination with a flap pivoted within the upper chamber so as to cover one opening and its lower edge normally extending below the lower edge of the other opening to prevent the gas in the flue from passing backward into the apartment.

2. In a stove-pipe thimble, the combination of the thimble proper having an aperture for the stove-pipe, with a binding-flap pivoted so as to hang within such aperture and shaped so as to embrace the pipe and hold it against withdrawal.

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