

(No Model.)

2 Sheets—Sheet 1.

S. Z. MARTIN.
FOUL AIR VENTILATOR.

No. 483,631.

Patented Oct. 4, 1892.

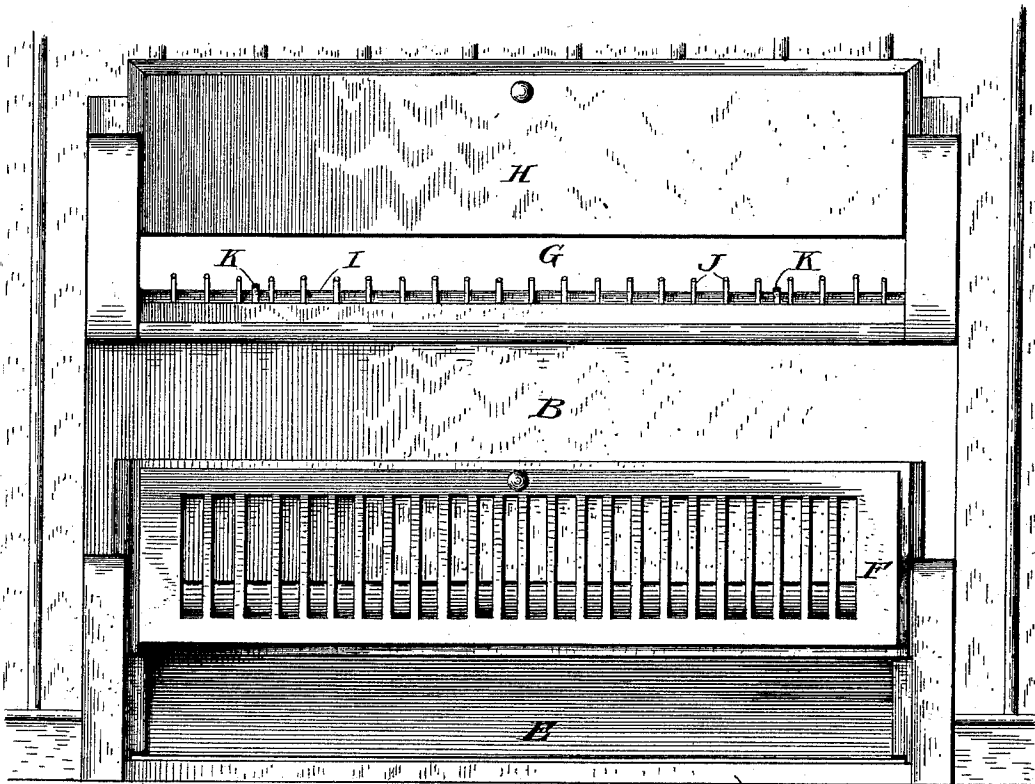


Fig. 1.

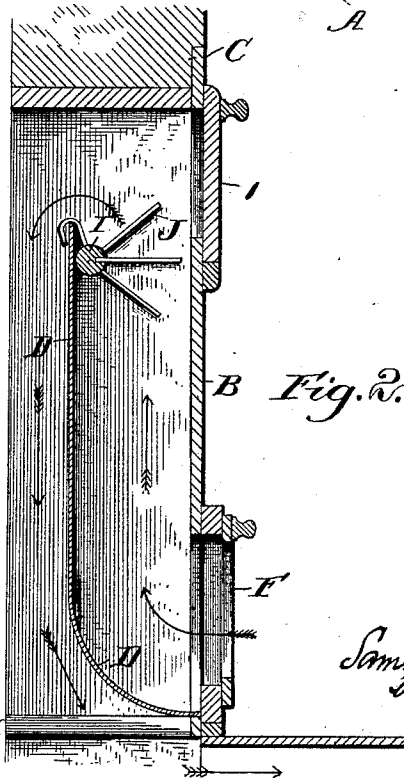


Fig. 2.

Witnesses:

J. B. McGirr.

Amund H. Wye.

Inventor.

Samuel Z. Martin

Deane & L. Syer
Attorneys

(No Model.)

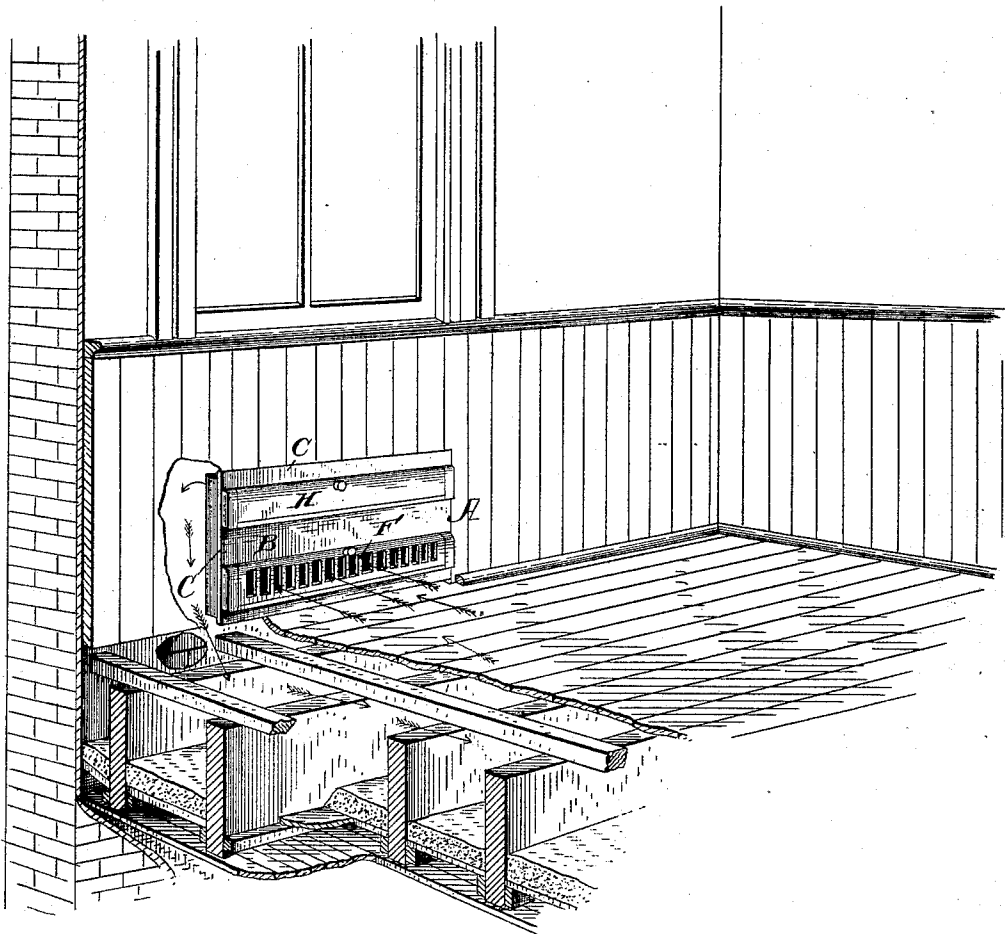
2 Sheets—Sheet 2.

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Fig. 3.



Witnesses:

J. B. McGinn.

Edward A. Dyer.

Inventor:

Sammuel K. Martin

by Francis L. Dyer

Attorney

UNITED STATES PATENT OFFICE.

SAMUEL Z. MARTIN, OF LOCK HAVEN, PENNSYLVANIA.

FOUL-AIR VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 483,631, dated October 4, 1892.

Application filed March 23, 1892. Serial No. 426,172. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL Z. MARTIN, a citizen of the United States, residing at Lock Haven, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Foul-Air Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in foul-air ventilators for systems of heating and ventilating buildings wherein air is circulated in currents in and out of the room.

My invention is adapted to be used in connection with any system of warming or ventilating rooms in which air, either hot or cold, is introduced into the room through suitable inlets or registers located upon the walls or floors of the room, but preferably near the lower part of the room, and in which the cold and foul air finds exit through similar openings or registers situated either adjacent to or away from the registers by which the air enters.

Heretofore the foul-air vents have consisted simply of a grating or register, in order to prevent foreign substances from entering the foul-air flues. It often happens, however, that dust, lint, paper, matches, and various other kinds of light refuse enter the flues, which not only tend to choke them and obstruct the draft, but also endanger the security of the building by the liability of an accidental conflagration.

The objects of my invention are to provide suitable means whereby such dust, paper, or other obstructing material will not be allowed to pass into the flues, but will be held and retained in a suitable device from which they can be readily removed.

My device consists, generally, in substituting for the well-known register a box provided at its lower part with a suitable grating and divided into two parts by means of an upright partition, which does not extend quite to the top of the box. Secured to the top of this partition is a double or triple row of metal pins adapted to entangle and retard all dust or other waste which may pass up through the box and over the partition. Upon the

front of the box and adjacent to this aforesaid row of pins is an opening through which all dust or other waste that may become entangled with the pins may be removed. This opening is preferably covered by a flap or trap.

In order to better comprehend my invention, attention is called to the accompanying drawings, in which—

Figure 1 represents a front view of my device, showing the dust-arresting device in position. Fig. 2 represents a side sectional view of the same. Fig. 3 represents a partial view of a room, showing my device in operation.

In all of the several views like parts are designated by identical letters of reference.

My device consists, generally, of a body or box A, constructed, preferably, of metal and open at the back and bottom. This box is of a general rectangular shape, with a thickness of about one-third of its height. The front B of this box is made, by preference, somewhat larger than the sides, in order that a flange C will be formed on three sides of the box. A suitable partition D, made of tin or other sheet metal, is located within this box, as shown, and is mounted so that its main portion will be parallel with the front or face of the box. This partition extends to within a short distance of the top of the box, while its bottom curves gradually forward and meets the front of the box. For convenience this partition D is mounted in suitable grooves in the sides of the box, so that it may be easily removed, when necessary. Across the front of the box and as close to its bottom as possible is an oblong opening E, which is closed by a suitable grating F, preferably of an ornamental character. This grating is preferably mounted within grooved slides, so as to be easily removable; but it may be hinged or pivoted, if desired. Near the top of the box and upon its front face A is a similar opening G, closed by a non-perforated or close cover H, mounted in the same manner as the flap F. Immediately behind this opening G is a device for retarding and retaining the dust or waste matter passing through the box. This device consists, essentially, of a bar or rod I, of a general cylindrical shape, provided with three or more rows of metallic pins or spines J J, radiating out from the bar I. This

bar is attached by means of suitable hooks K K to the partition D in such a manner as to be readily removed through the opening G.

5 The entire device is mounted in the following manner, as illustrated in Fig. 3: The box is recessed within the wall or wainscoting of the room, with the flange C upon the outside. The open bottom of the box communicates directly with the space between the joists and
10 the floor, so that the current of air will readily pass through the grating F, up along the front of the partition D, through the metal pins J J, over the top of the partition D, and down through the back of the box to the floor,
15 under which it will pass to a suitable flue or flues on the opposite side of the room, from whence it will pass to the usual chimneys. Should the device become choked with dust or other débris, it may be readily cleaned by
20 removing the grating F. All of the finer dust, particles of paper, matches, lint, and other light waste, &c., that pass through the grating F will be arrested by means of the pins J J, which may be readily removed and cleaned
25 by opening the sliding door H.

I have described my invention as applied

to a system of ventilating and warming invented and patented by Isaac D. Smead; but it may as well be applied to any other method of heating or ventilating, the only requisite
30 being that a foul-air flue be provided.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An improved vent for ventilating, consisting of a body portion divided into two portions by means of an upright partition, with a grating on the lower front part of the body over the inlet, and with a dust-arrester, substantially as described, arranged adjacent to
40 the top of the partition.

2. An improved vent for ventilating, consisting of a body divided into two portions by means of an upright partition, with a grating near the forward lower part of the body over
45 the inlet, a dust-arrester near the top of the partition, and an opening adjacent to said dust-arrester, for the purposes set forth.

SAMUEL Z. MARTIN.

In presence of—

J. R. YOUNGMAN,
JOSEPH GRUFIUS.