

(No Model.)

C. REDPATH.
VENTILATOR.

No. 485,059.

Patented Oct. 25, 1892.

Fig. 1.

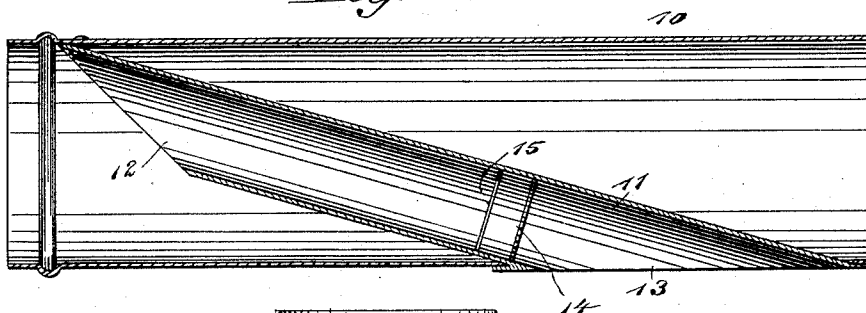


Fig. 2.

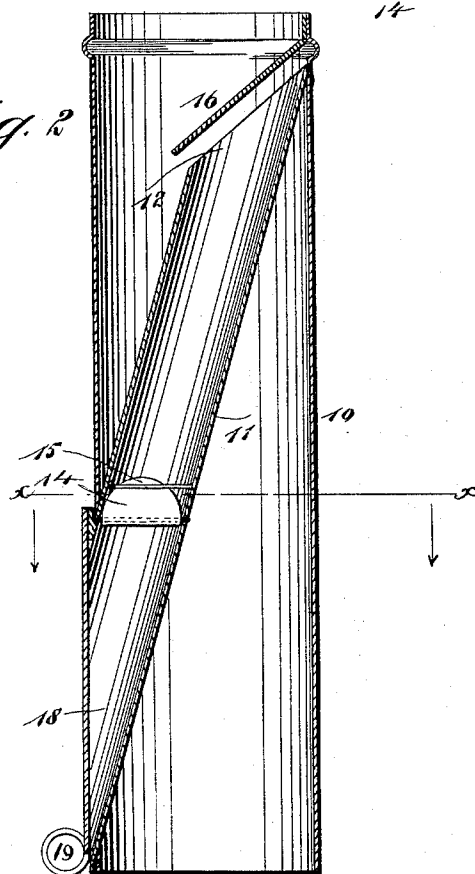
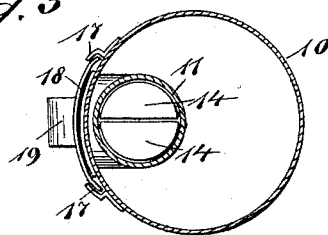


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES REDPATH, OF PEMBINA, NORTH DAKOTA.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 485,059, dated October 25, 1892.

Application filed February 24, 1892. Serial No. 422,611. (No model.)

To all whom it may concern:

Be it known that I, CHARLES REDPATH, of Pembina, in the county of Pembina and State of North Dakota, have invented a new and
5 Improved Ventilator, of which the following is a full, clear, and exact description.

My invention relates to improvements in ventilators adapted to be used in rooms which are heated by stoves; and the object of my
10 invention is to produce a ventilator which will form, essentially, a part of the stovepipe, which may be made very cheaply, and which will cause all the foul air, smoke, and gases in a room to be carried off through the stove-
15 pipe.

A further object of my invention is to construct a ventilator so that the volume of air escaping through it may be regulated and so that it will operate automatically to prevent
20 the smoke from being driven back through it into the room.

To this end my invention consists in a ventilator the construction of which will be hereinafter described and claimed.

25 Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section of a joint
30 of stovepipe having my improved ventilator secured thereto, the joint being especially adapted for use in a horizontal position. Fig. 2 is a longitudinal section of the joint and ventilator as adapted for use in a vertical po-
35 sition, a deflector-plate being shown above the ventilator-pipe and a regulating slide or cover at its lower end; and Fig. 3 is a sectional plan on the line *xx* of Fig. 2.

The stovepipe-joint 10 is of the usual kind,
40 and arranged diagonally within it is a small pipe or tube 11, one end of which opens into the pipe, as shown at 12, and the other end of which projects through the wall of the pipe and opens into a room, as shown at 13. The
45 tube 11 is provided with a pair of swinging dampers 14, which are arranged near the outer end of the tube, and the inward movement of the dampers is limited by a cross-pin 15 in the tube 11. The air may easily
50 pass into the pipe 10 through the pipe or tube 11, and the draft of air will cause the

dampers to swing inward, so as to permit the air to pass freely; but if there is a back-draft occasioned by a puff of wind down the chimney or other cause the air striking the backs
55 of the dampers will quickly close them, so that no smoke can escape through the opening 13.

When the joint 10 is used in a vertical position, the inner end 12, which is cut off di-
60 agonally, as shown in Figs. 1 and 2, is covered by a deflector-plate 16, this plate being secured to the inner wall of the pipe 10 and extending inward and downward over the upper end of the pipe or tube 11, the plate
65 being large enough to cover the tube and being placed above it, so as to leave space between it and the tube for the free passage of air. When used in a vertical position, the
70 pipe 10 is also provided with a slideway adjacent to the mouth 13 of the tube 11, this slideway being formed by the inwardly-bent flanges 17, which are secured to the pipe 10 on each side of the mouth or opening 13. A
75 curved slide or cover 18 is held to move in the slideway, this cover having at its lower end a handle 19, by which it may be moved, if desired. The slide or cover 18 may be also
80 applied to the pipe when it is in a horizontal position; but as a rule the horizontal joint of a stovepipe is near the top of a room, where it can not be conveniently reached, and so in this case the slide may be dispensed with.

It will be understood that the pipe or tube 11 can be very cheaply made and so, also, may
85 its several attachments, and the tube and attachments may be applied to the joint of the stovepipe, so that the same may be sold with other joints of pipes and applied to a stove
90 and chimney without difficulty. In operation the draft of the chimney and pipe causes the foul air, gases, and smoke in the upper part of the room to be drawn out through the tube 11 into the chimney, thus keeping the
95 room thoroughly ventilated.

I am aware that it is not new to have ven-
tilators enter the smoke-pipe of a stove, but usually ventilators of this class have been
provided with an outside dome or its equiv-
100 alent, having a pipe to connect with a chimney-pipe; but with ventilators of this class much of the warm air in a room, which is

perfectly pure, is carried up the chimney, thus wasting the heat, and, moreover, the ventilators of this class are expensive.

In view of the above I do not claim, broadly,
5 the combination of the smoke pipe of a ventilating-tube extending into the pipe.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

10 1. The combination, with the smoke-pipe 10, of the open-ended ventilating-tube 11, contained wholly within the pipe and opening through one wall thereof, and the vertically-swinging dampers pivoted transversely
15 in the ventilating-tube, substantially as described.

2. The combination, with the smoke-pipe 10, of the ventilating-tube 11, held within

the pipe and having one end opening through the pipe, the deflecting-plate 16, held opposite 20 the inner end of the tube, so as to shield the same, and vertically-swinging dampers pivoted transversely in the tube, substantially as described.

3. The combination, with the pipe 10, of 25 the tube 11, fixed to the pipe, the tube having one end opening through the pipe and the other end cut off diagonally at 12, the deflecting-plate 16, held to the pipe above the inner end of the tube, and the sliding door 30 18, held to move in slideways on the pipe, substantially as described.

CHARLES REDPATH.

Witnesses:

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