S. H. LAMAN.

Ventilator.

No. 44,959. Patented Nov. 8, 1864.

Fig. 1

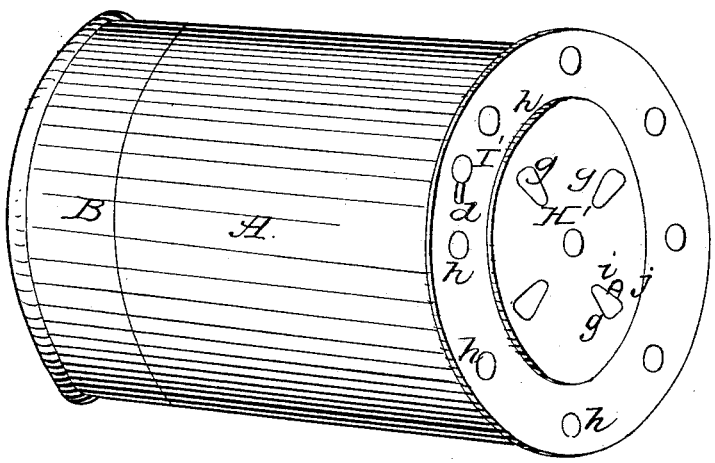
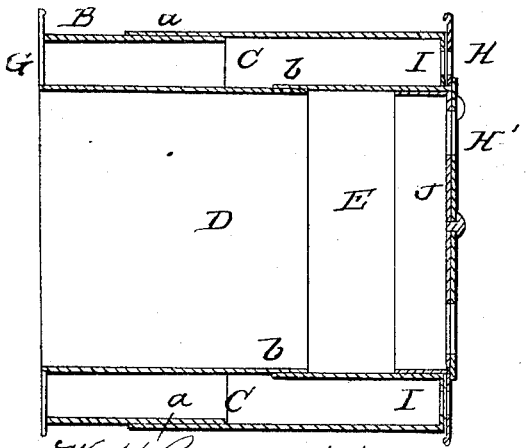
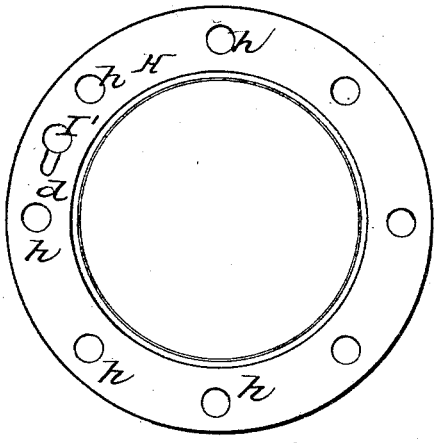


Fig. 2



W. A. Brindley
J. Holmes
Witnesses

Fig. 3



Inventor
S. H. Laman

UNITED STATES PATENT OFFICE.

S. H. LAMAN, OF WILLOUGHBY, OHIO.

IMPROVED VENTILATOR.

Specification forming part of Letters Patent No. 44,959, dated November 8, 1864.

To all whom it may concern.

Be it known that I, S. H. LAMAN, of Willoughby, in the county of Lake and State of Ohio, have invented certain new and useful Improvements in a Combined Stove-Pipe Guard, Register, and Ventilator; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the guard. Fig. 2 is a logitudinal section. Fig. 3 is an end view.

Similar letters of reference denote like parts in the views.

My improvement relates to a stove-pipe guard so constructed that it can be extended or contracted to suit the width of any partition, with an annular chamber, which, by means of gaged openings, answers the purpose of a ventilator and register; also, to an adjustable cap, filling up the space occupied by the pipe, for summer use.

The guard is formed in two sections, A and B the section B fitting into the section A where they come together, so that it can be moved in or out, extending or contracting the guard. Each section is formed of two cylinders, secured to flanges G and H, at one end of each, forming the ends of the guard, with a space between the cylinders, that, when the cylinders are put together, forms an annular chamber, C. (Seen in Fig. 2.)

It will be observed that the inner chamber, D, of the section B extends out beyond the outside cylinder from the flange at the end, and the outside cylinder of the section A extends out beyond the inner cylinder, E, so that the cylinders where they come together will suitably overlap, as at *a* and *b* in Fig. 2, and that the joints thus formed will not be opposite, but one side of each other, as represented.

In the flanges G and H, at the ends of the guard, are holes or openings *h*, that communicate with the chamber C. On the inside of one or both of these flanges is arranged a flat ring or diaphragm, as at I in Fig. 2, with a pin, I′, secured to it, that, by means of the slot *d* in the flange, can be moved round, opening or closing the holes *h*, there being openings in the diaphragm corresponding to the openings in the flange. The whole is a ventilator, *h*.

H′ is an adjustable cap that fits in round the inner cylinder, E, as represented in Figs. 1 and 2, with openings *g*, that are closed or opened by means of a revolving disk, J, on the inside, pivoted in the center and moved round by a pin, *j*, in the slot *i*. The openings in the disk are similar to the openings in the cap, and so arranged that they can be closed more or less, as may be desired. The cap is designed to be placed in the guard when the pipe is removed in summer, closing the space occupied by the pipe, and presenting a very neat appearance, at the same time answering the purpose of a ventilator, together with the openings in the flanges conveying impure air out and allowing fresh air to come in. If the guard is placed in a partition between two rooms, there can be an adjustable cap in each end.

In winter, when the cap is removed and the stove-pipe extends through the guard into the chimney, the flanges, in connection with the annular chamber as constructed and arranged, form an excellent ventilator for the room, the openings in the flanges allowing the heated air to pass out through the chamber into the chimney, and fresh air to pass in, and the diaphragm can be adjusted so as to close the openings more or less, as may be desredi.

When the guard is in a ceiling, between two rooms, the annular chamber and perforated flanges form a register, the heated air passing through the openings into the room above; and likewise in every position in which this stove-pipe guard is placed it can be made to answer the purpose of a ventilator and register, and the annular chamber around the inner cylinder, outside of the pipe, prevents the heat of the pipe from being communicated to the wall, being in this respect a perfect safeguard, and by means of the sections sliding together, as described, the guard can be adjusted to suit the width of any partition.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The special arrangement of the adjustable sections A and B and annular chamber C when used in combination with the ventilator *h′* and register H′, as and for the purpose set forth.

S. H. LAMAN.

Witnesses:
W. H. BURRIDGE,
J. HOLMES.