

L. F. Smith.

Steam-Blower.

N^o 72426

Patented Dec. 17, 1867

fig. 1.

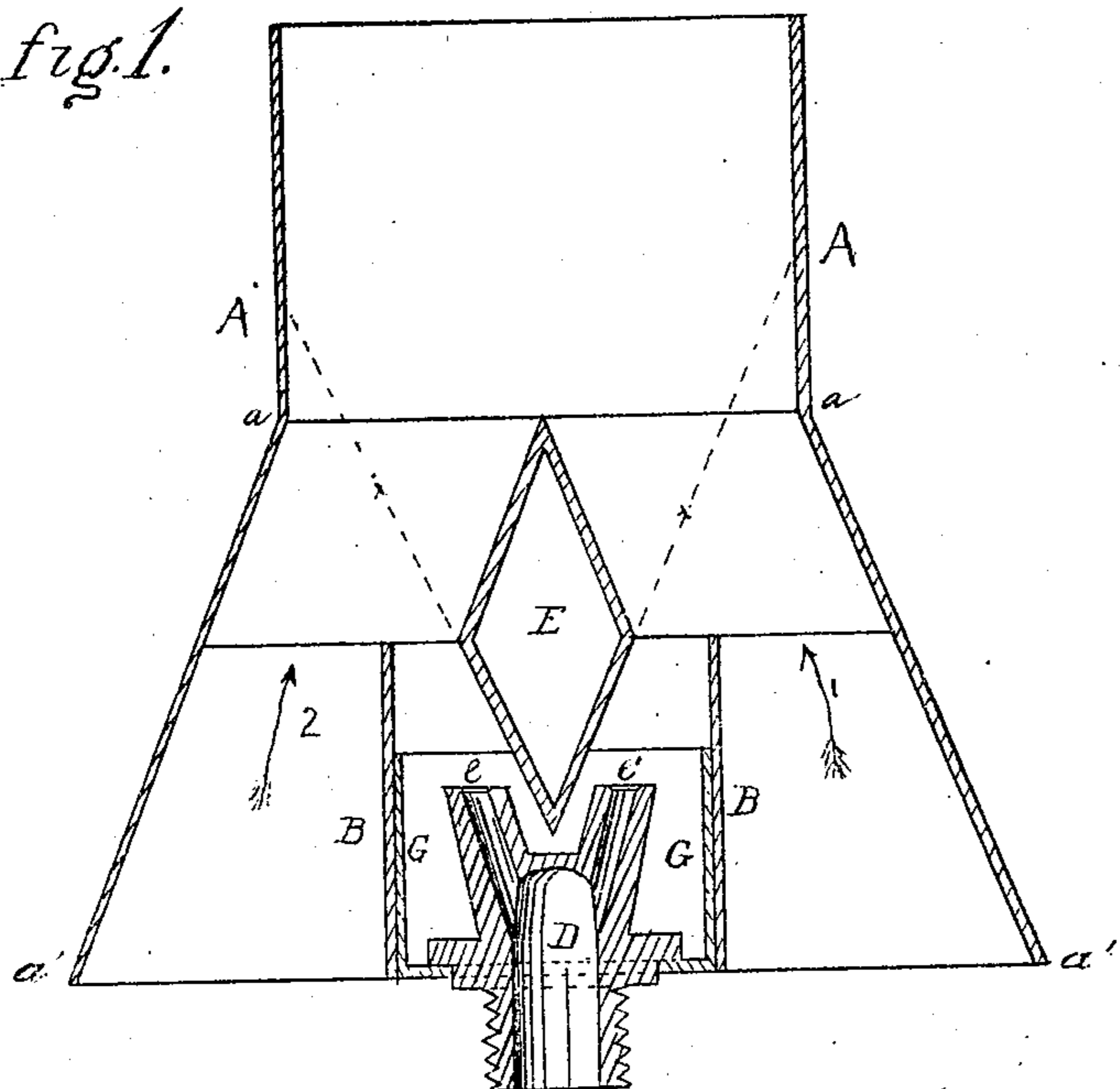
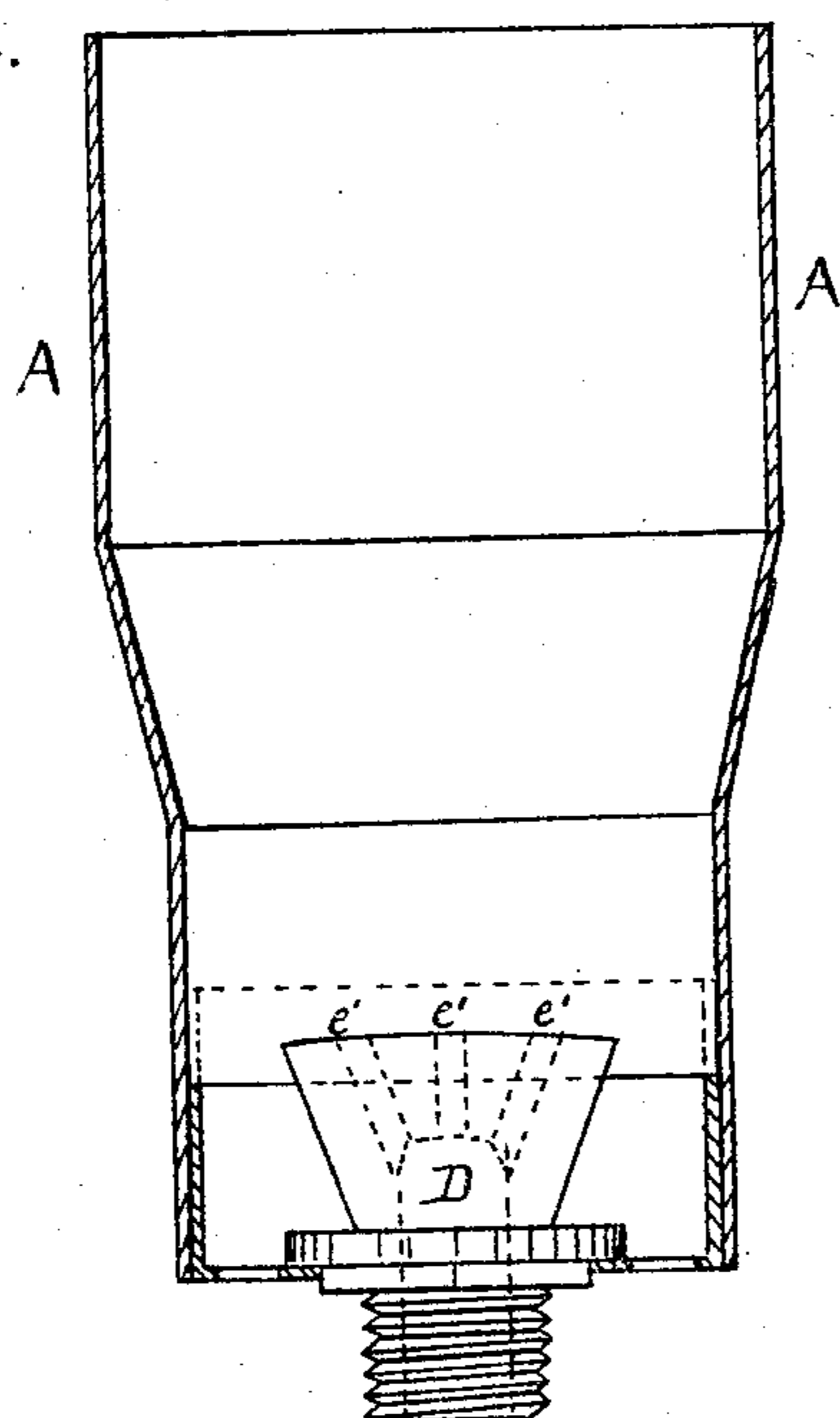


fig. 2.



Witnesses:

Eddy, Shaw

C. Cox

Inventor

L. F. Smith

Alexander Mason
att_y

United States Patent Office.

L. F. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 72,426, dated December 17, 1867.

IMPROVEMENT IN STEAM-BLOWERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, L. F. SMITH, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented certain new and useful Improvements in Steam-Blowers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings, making part of this specification, A represents a large pipe, made of any suitable diameter, and provided with a flaring mouth, as seen from *a* to *a'*. B B represent two partitions, which are placed in the mouth of the pipe, at equal distances on each side of its centre, but leaving air-passages, as seen by the arrows 1 and 2, between them and the sides of the pipe. Fitted in snugly between these partitions, is a metallic box, G. This box has firmly secured into its outer end a steam-pipe, D D. The inner end of this pipe is forked, and each fork is provided with a series of small orifices, *e e e* and *e' e' e'*, for the escape of steam. Placed centrally within the pipe A is a diamond-shaped spreader, E. One angle of this spreader projects in between the divisions or partitions B B, and also between the forked ends of the pipe D.

The object of this invention is to create, and continue, as long as desirable, a current or draught of air by means of steam. Steam is admitted through pipe D, and, rushing through the orifices *e e'*, strike the sides of the pipe A in the direction of the dotted lines represented at *x x*. The spreader E causes this deflection of the steam, and the pipe A, being thus instantly filled with steam, has the air displaced within it. The external air rushes in to supply that displaced, and passes by the partitions B B, in the direction of the arrows 1 and 2, and after passing the lines *x x* is forced onward by the steam from the orifices *e e'*. As long as a current of steam is allowed through the orifices *e e'*, so long will a current of air be forced through the pipe A. The air thus forced may be used for ventilating purposes, or for supplying oxygen to the fire of a furnace.

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

1. The spreader E, as constructed and arranged within the pipe A, with its partitions B B, in the manner and for the purposes set forth.

2. In combination with the spreader E in the pipe A, with its partitions, the solid pipe or casting D, having orifices *e e'* and screw-thread, all constructed and operating as specified.

In testimony that I claim the foregoing, I have hereunto set my hand, this 28th day of September, 1867.

L. F. SMITH.

Witnesses:

C. M. ALEXANDER,

J. M. MASON.