

No. 23,318.

PATENTED MAR. 22, 1859.

J. SPEAR.  
GAS BURNING STOVE.

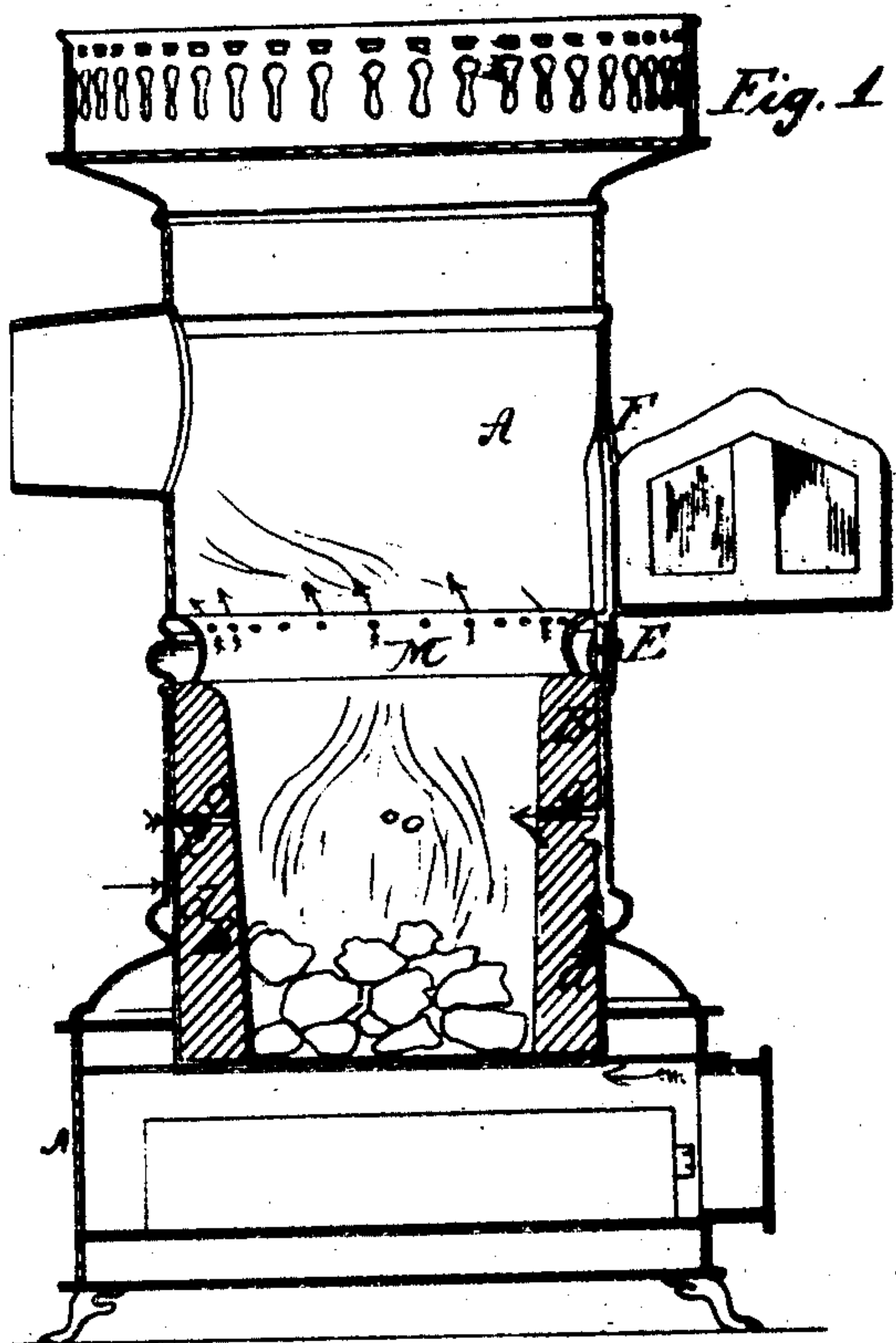
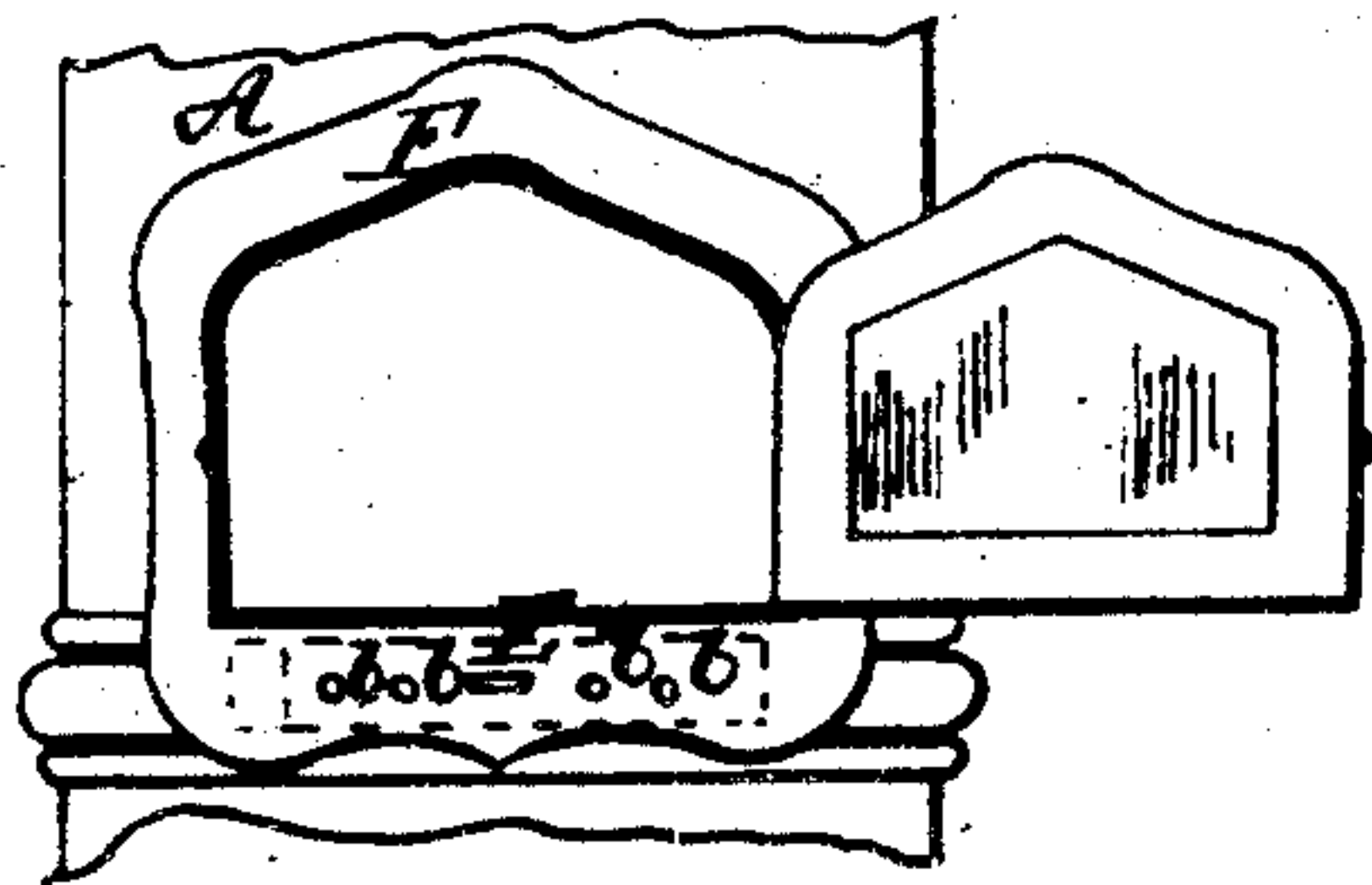


Fig. 1.

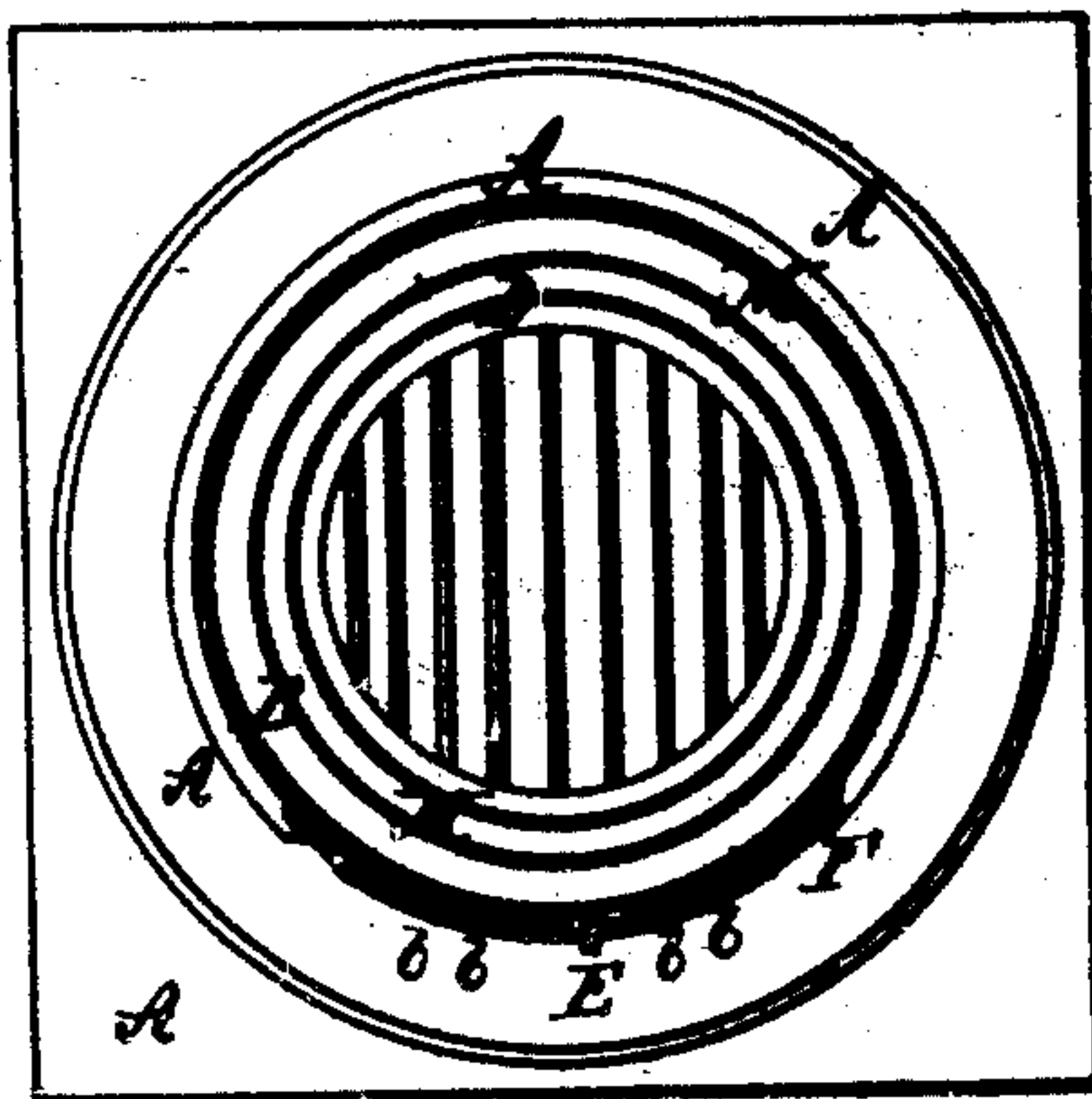
Figs. 3.



3



Fig. 2.



Witnesses,

W. Jensen  
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Inventor,  
James Spear

# UNITED STATES PATENT OFFICE.

JAMES SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

## GAS-BURNING STOVE.

Specification of Letters Patent No. 23,318, dated March 22, 1859.

*To all whom it may concern:*

Be it known that I, JAMES SPEAR, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a  
5 new Improvement in Gas-Burning Heating-Stoves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.  
10

The nature of my invention consists in the burning of gas arising from coal in heating stoves by introducing jets of heated air over the fire which jets of air mingling  
15 with the gas arising from the coal aids the combustion of the same.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

20 Figure 1 is a vertical section of the stove. Fig. 2 is a horizontal section of the same. Fig. 3 represents the door and slide.

A is the body of the stove and B the cloy cylinder inside the stove. In order to effect  
25 the burning of the gas I have placed grooves *c* around the cylinder and grooves *d* running up the cylinder to a point near the top then entering the fire chamber through holes O. This admits a current of air to pass around  
30 the cylinder B up its sides and through the opening O into the fire chamber, thus mingling with the gases and aids the combus-

tion of the same. In order to prevent the fine ashes from working down around the cylinder and filling up these openings I 35 have placed a metallic ring M which curves the edge of the cylinder and contracts and expands with the body of the stove and prevents the ashes from working down around the cylinder B. In the ring M, I have 40 placed numerous small holes S and have constructed a slide E in the door frame F with openings in the door frame *b* which admits the air to pass through the door frame F and through the body of the stove 45 A, which passes around the ring M and escapes through the openings S in the ring and ignites the particles of gas which escapes the holes in the cylinder B.

What I claim and wish to secure by Let- 50 ters Patent is—

The combination of the slide E in the door frame F with the ring M and the cylinder B and the body of the stove A as constructed in the manner and for the purpose 55 set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JAMES SPEAR.

Witnesses:

C. TAUBERSCHMIDT,  
S. M. SHAKSPEARE.