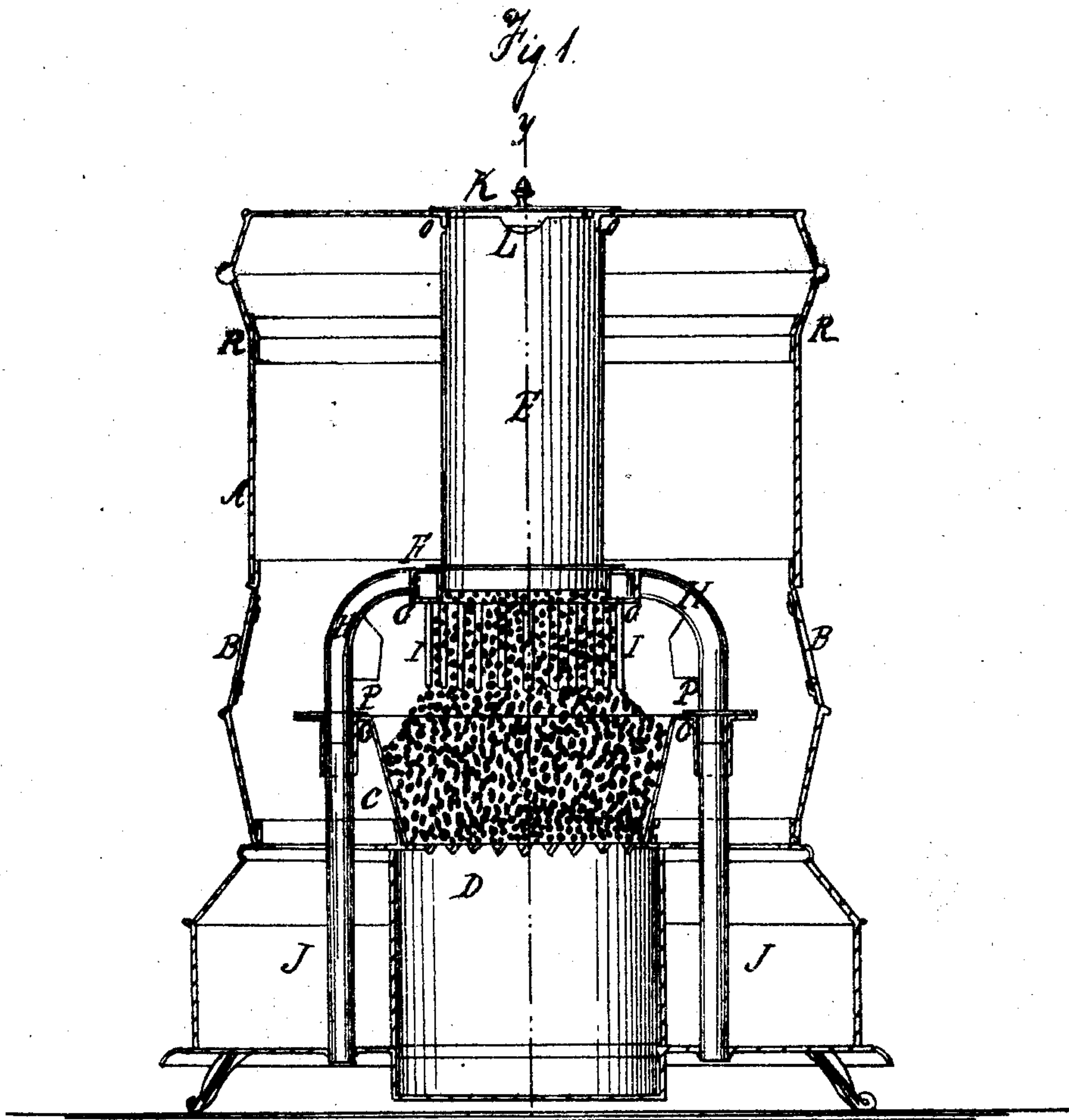


Sheet 1 - 2 Sheets.

*R. B. Thompson,*  
*Base-Burning Stove*

No 76,005

Patented Mar. 24. 1868.



Witnesses.

*John C. Poller*  
*E. F. Kastenhuber.*

Inventor.

*Robt B Thompson*  
*By Vansantona & Hauff*  
*his attorneys*





# United States Patent Office.

ROBERT B. THOMPSON, OF NEW YORK, N. Y.

*Letters Patent No. 76,005, dated March 24, 1868.*

## IMPROVEMENT IN BASE-BURNING STOVES.

*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, ROBERT B. THOMPSON, of the city of New York, county and State of New York, have invented a new and useful Improvement in Base-Burning Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a vertical section in the plane of the line *xx* of fig. 2.

Figure 2 is a vertical section in the plane of the line *yy*, fig. 1.

Figure 3 is a detailed inverted view of the ring F and supply-pipes H.

This invention relates to stoves of the class commonly called base-burning. At the lower part of the reservoir, which contains the supply of fresh fuel, is an annular air-chamber, which receives air by means of pipes that go through the flue-spaces at the base of the stove, and which discharges such air into or upon the incandescent fuel through perforations in the bottom of said annular chamber, such chamber having also at its bottom a series of fingers, arranged between the perforations, and projecting downwards towards the fire-pot.

The letter A designates the outer shell of the stove. Its form and its ornaments can be varied to suit the taste and judgment of the maker. Its sides, opposite to or just above the level of the top of the fire-pot, have openings, which are provided with plates of mica or other suitable transparent material, B B, &c. The fire-pot C and ash-pit D are arranged as shown in the drawing, said fire-pot being made more or less flaring, as may be preferred by the maker. Above the fire-pot, but disconnected therefrom, is the fuel-reservoir, E, arranged within the shell A, and rising up to or nearly up to its top, in such a manner as to be beneath the cover K, which closes the opening in the top of the stove. The fuel is introduced into the reservoir through the said opening. From the mouth of the said opening a flange, O, extends downwards, as shown in the drawing, which flange enters the top of the cylinder or reservoir E, and by that means holds it in place, and also forms a guide for the fuel, so that no fuel can fall between the reservoir E and shell A.

The top of the reservoir E has several openings, L, at suitable distances apart, which are formed by cutting its upper edge or top down at those places, the object being to establish or allow free communication between the interior of the reservoir and the interior of the outer shell A. The lower part of reservoir E is surrounded by an annular chamber, F, from whose lower side extend fingers, I, which form a vertical grate, reaching nearly to the level of the top of the fire-pot, but not connected to the fire-pot. The lower side of said annular chamber, furthermore, is perforated with air-holes, G, which, in this example, are placed between the fingers I, in alternation therewith, as is shown in fig. 3. The annular chamber is supplied with air by means of air-pipes H H, which start from below the bottom of the stove, and are taken through the flue-spaces J J, in its base, and thence upwards through the flue-space that surrounds the fire-pot, above which said fire-pot they are curved, so as to approach and enter said chamber at opposite sides. The area of said pipes is made large enough to furnish a sufficient supply of air to secure the combustion of gases that come off from the fuel while it is burning. The annular chamber F forms an integral part of the reservoir E, and the pipes H H, where they enter said chamber F, are firmly and strongly attached thereto, one object of such construction being to enable me to support the reservoir wholly upon said pipes whose upper parts are arched to form supports of sufficient strength for this purpose. The said air-pipes are mainly supported upon hollow brackets Q Q, which extend from the upper edge of the fire-pot, as shown in fig. 1, upon which brackets rest flanges P P, that are formed around the pipes, the said flanges being properly fastened to the brackets by bolts or otherwise, to prevent displacement. Those portions of the pipes which are below the brackets Q Q are partly suspended therefrom, and are partly supported by the bottom of the stove, through which they pass.

This arrangement greatly simplifies and improves the construction of stoves of this class, the reservoir and its appurtenances being easily got at for repair, and being easily removed by removing the top of the shell at the joint R, or at a lower joint, and then removing the bolts or pins which attach the flanges P P to the brackets Q Q of the fire-pot.

The base of the stove is occupied by the ash-pit D and the base-flues J J, into and through which all the products of combustion pass on their way to the exit-opening N, which is formed on the top of the flue-chamber

J' at the back of the stove. The base-flues J J discharge the products of combustion into the said chamber J', in whose rear wall is a draught-regulating damper, M.

It will be observed that this stove has a large radiating-surface, and that the arrangement of its parts is such as will effectually secure a large heating-surface near the floor of any apartment in which it is placed. The air which is discharged into the stove from the air-chamber F is heated by passing through the pipes H H, which traverse the whole height of the base-flues J J.

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

1. Supporting the reservoir E upon brackets Q Q, in combination with the air-pipes H, substantially as set forth.

2. The combination of the annular air-chamber F around the lower part of the reservoir E, with the vertical bars or fingers I, substantially as shown.

3. The combination of the annular air-chamber F, formed around the lower part of reservoir E, with air-pipes H H, when the latter extend downwards through the base-flues J J, substantially as shown.

ROBERT B. THOMPSON.

Witnesses:

JOHN C. PALLER,

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