

HENRY R. REMSEN.

Improvement in Base-Burning Stoves.

No. 115,359.

Patented May 30, 1871.

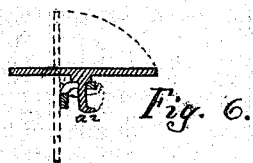


Fig. 6.

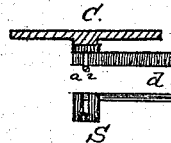


Fig. 5.

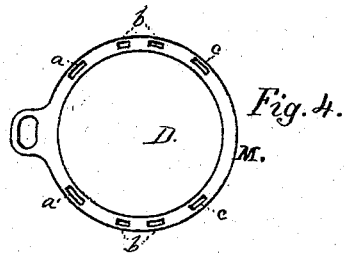
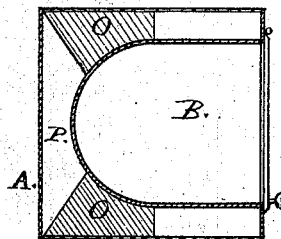


Fig. 4.

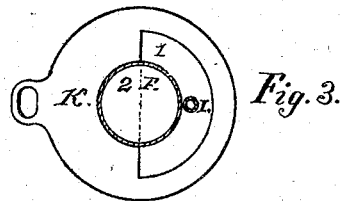


Fig. 3.

Fig. 1.

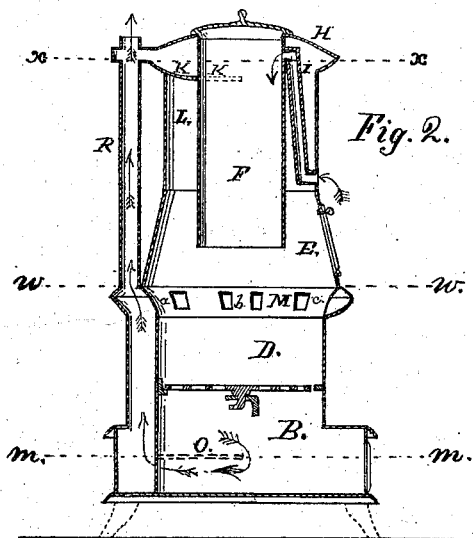
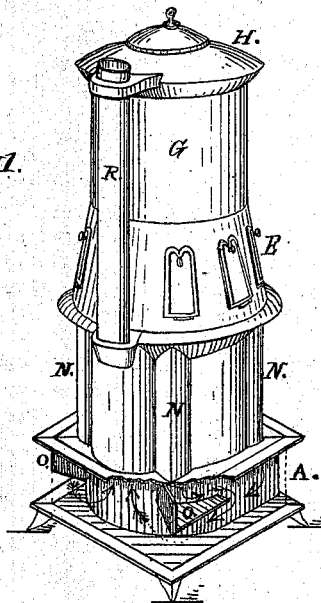


Fig. 2.

Witnesses:
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Henry R. Remsen,
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UNITED STATES PATENT OFFICE.

HENRY R. REMSEN, OF NEWTONVILLE, NEW YORK.

IMPROVEMENT IN BASE-BURNING STOVES.

Specification forming part of Letters Patent No. 115,359, dated May 30, 1871.

To all whom it may concern:

Be it known that I, HENRY R. REMSEN, of Newtonville, in the county of Albany and State of New York, have invented certain Improvements in Reservoir-Stoves, of which the following is a specification:

The first part of my invention relates to the arrangement and combination of an air-tube with the upper part of a stove-reservoir, by which explosions of gas from the reservoir and fire-pot may be prevented. The second part of my invention relates to the construction and arrangement of a check-plate near the top of and at the back part of the reservoir, so as to prevent the heat arising from the ignited fuel in the fire-pot of the stove from passing off too rapidly.

In the accompanying drawing, Figure 1 is a perspective view of a stove embodying my improvements. Fig. 2 is a central vertical section of the same taken on the plane of a line running from the front to the back of the stove. Fig. 3 is a horizontal view of the inside of the top of the stove taken on the plane of line *xx* in Fig. 2. Fig. 4 is a horizontal view of the upper part of the fire-pot as seen on the plane of line *ww* in Fig. 2. Fig. 5 is a horizontal section through the base of the stove at the line *mm* in Fig. 2. Fig. 6 is a view of the grate-rest or support and the hooked center pivot of grate, showing the grate in two positions, viz, when at rest in a horizontal position, and when dumped or in a vertical position. In Fig. 1 the lower part of the stove is represented as broken away to show the interior of the base of the stove.

A is the base of the stove. B is the ash-pit; C is the grate; D is the fire-pot; E is the illuminated section; F is the reservoir; G is the upper section; and H is the top of the stove. I is a pipe, of about one inch in diameter, connected at its top with the upper part of reservoir F, and at its lower end with the lower part of the upper section G of the stove, (or it may be carried down to the base of the stove, if desired.) Said pipe gives a free communication at all times with the air of the room and the upper part and under side of the reservoir.

I have found, by frequent experiments, that by admitting air into the top or upper part of the reservoir by means of a tube, I, arranged as above described, no explosion

will take place from the reservoir nor from the combustion-chamber of the stove.

I am aware that several methods have been devised to convey air into the reservoir of a stove for the purpose of consuming the gases formed there during the combustion of the fuel in stoves of this description. I find that by conveying air through a pipe, I, said pipe I passing through a constantly-heated chamber, L, just above the combustion-chamber of the stove, the air within pipe I will always be heated, and there will be a constant current of air entering the reservoir at its top, and said current of air I have always found to be sufficiently powerful to prevent any explosions taking place, either from the reservoir F or the combustion-chamber below the reservoir, as above stated.

K is a concave circular plate forming the under part of the top of the stove. On opposite sides of a diameter running from side to side of said plate K are two semicircular apertures, 1 and 2, the diameter of the front aperture 1 being nearly equal to that of the upper part or body of the stove, and the diameter of the back aperture 2 being equal to that of the upper part of the reservoir F, so as to fit closely to the reservoir when both are in place on the stove, as shown in Figs. 1, 2, and 3.

It will be seen from the above that I prevent explosions in reservoir-stoves by means of air passing through pipe I, becoming heated therein, thus causing a continual current of air to enter the reservoir at or near its top, as above described. Also, that by means of extending the lower plate K of the top of the stove to the reservoir F, the ascending heat is retained longer within the upper section of the stove, thus giving out more heat in the room.

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

1. The combination and arrangement of air-pipe I with reservoir F and heated chamber L of a stove, in the manner and for the purpose herein shown.

2. Plate K, with its semicircular openings 1 and 2, in combination with reservoir F, as herein shown, and for the purpose set forth.

Witnesses: HENRY R. REMSEN.

JOSEPH SLOAN,

BERNARD FLANAGAN.