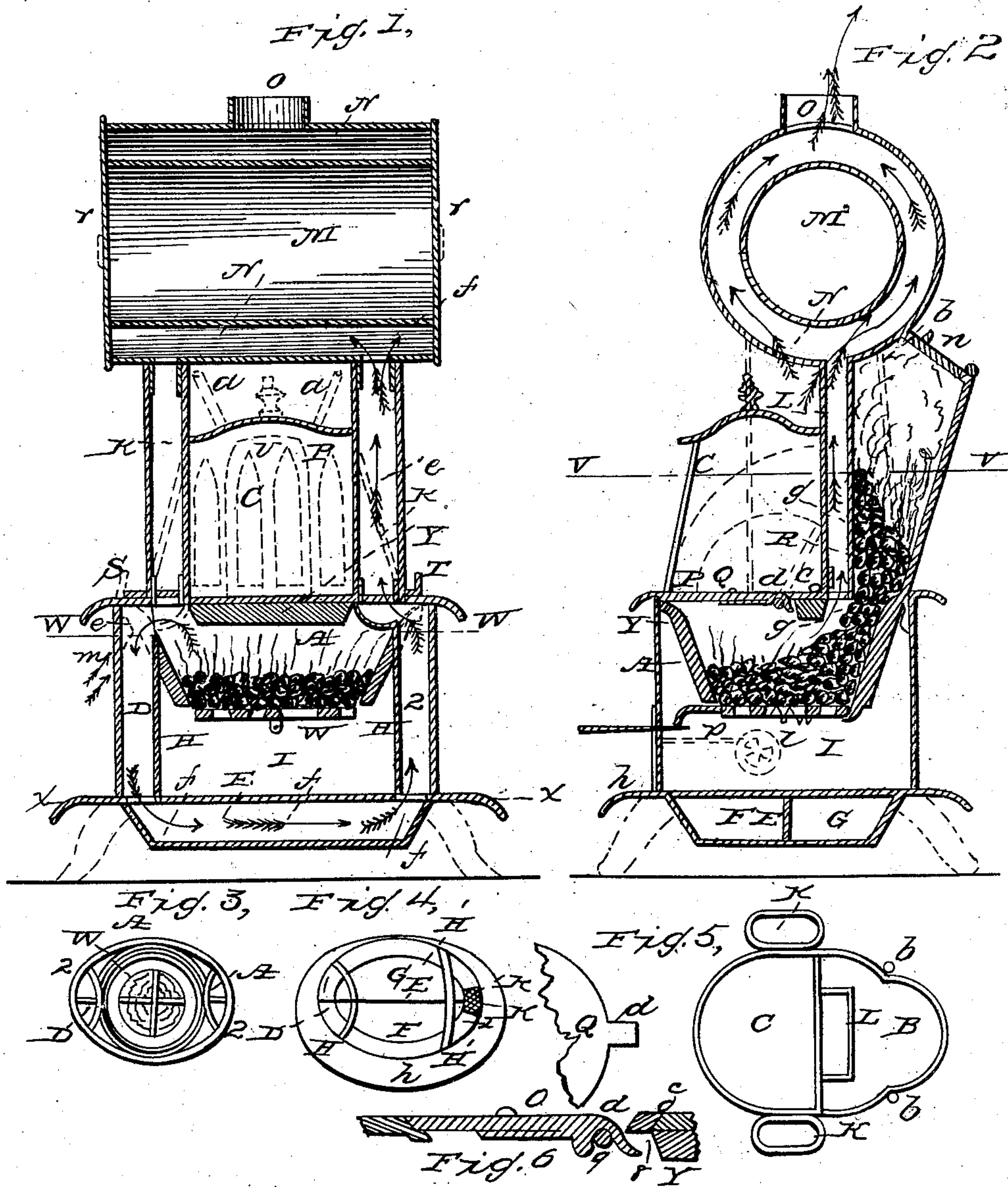


G. A. WING.
Base Burning Stove.

No. 93,782.

Patented Aug. 17, 1869.



Witnesses:
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United States Patent Office.

GEORGE A. WING, OF ALBANY, NEW YORK.

Letters Patent No. 93,782, dated August 17, 1869.

BASE-BURNING STOVE.

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, GEORGE A. WING, of Albany, in the county of Albany, and State of New York, have invented a new and improved Reservoir-Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a vertical central section of my invention, taken on the plane of a line running from side to side of my stove.

Figure 2 is a vertical central section, taken at right angles to fig. 1.

Figure 3 is a horizontal view of the fire-pot and side flues, as seen on the plane of line *ww* in fig. 1.

Figure 4 is a horizontal view of the base and bottom flues of the stove, as seen on the plane of the line *xx* in fig. 1.

Figure 5 is a horizontal section, taken on the plane of the line *vv* in fig. 2.

Figure 6 is an enlarged view, in plan and section, of cover *Q*, within illumination-chamber *C*.

Similar letters of reference indicate like parts in all the figures.

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

The base of the stove is constructed with under flues *F* and *G*, which are separated from each other longitudinally by central flue-strip *E*, as shown in figs. 1, 2, and 4.

The fire-pot *A* is suspended in the usual manner, above the ash-pit *I*, by means of lugs *e*, upon which the brim of the fire-pot may rest. It is further supported by two side flue-strips *H*, which reach from the brim of the fire-pot to the bottom of the ash-pit, as seen in fig. 1.

Flue-strips *H* are curved, and have their concave sides toward the ash-pit, as seen at *H*¹ in fig. 4, or they may have their convex sides toward the ash-pit, as seen at *H*² in fig. 4, and in both ends of fig. 3.

Said flue-strips *H* are divided from top to bottom by a central flue-strip, which is a continuation upward of flue-strip *E*, and thus forms two separate flues, one of which, *D*, is a descending flue, and the other, *2*, is an ascending flue, as seen in figs. 1, 3, and 4.

Upon the top of the fire-pot section of the stove are two outside ascending flues *K*, the bottoms of which are connected to the tops of the two inner ascending flues *2*, as shown in fig. 1.

On the tops of flues *K* is placed an elevated oven, *M*, which is surrounded by a flue, *N*, into which the

products of combustion from flues *K* are received, and thence conducted to exit-flue *O*, as shown in figs. 1 and 2.

Between the outside flues *K*, and directly over the fire-pot *A*, is a semicircular illuminating-chamber, *C*, provided with a door and illuminating-windows, for mica or other transparent substances, as may be desired.

The bottom of illuminating-chamber *C* is provided with two covers, one within the other. The larger one, *P*, is hinged, as shown at *c*, in fig. 2, and operated by a rod, *S*, as shown in fig. 1.

Cover *P* is nearly as large as the bottom of the illuminating-chamber *C*. The inner and smaller cover, *Q*, is a round cover, similar to an ordinary stove-cover, excepting that it is provided with a hinge of novel construction, as shown in figs. 2 and 6.

The hinge of cover *Q* is constructed as follows:

A projection, *d*, of about one inch in width and length, is formed on the back of the cover, as shown in plan and section in fig. 6. The under side of projection *d* is constructed with a semicircular recess in it, to fit over a horizontal pivot, *9*, which is fastened near the edge of the hole under cover *Q*. Projection *d* is constructed of an ogee-form, with its outer curved end *8* passing under the larger cover *P*, all as shown in fig. 6.

The reservoir *B* is placed on the back part of the stove, as shown in fig. 2, and has within it, on its front side, a flue, *L*, which serves for the direct draught of the stove, and is principally used when kindling a fire in the stove. There is a damper, *R*, at the bottom of flue *L*, seen in fig. 2.

Adjoining the reservoir *B*, and directly in front of the same, is an illuminating-chamber, *C*, occupying nearly all the front of the stove, and extending upward to the elevated oven *M*, as shown in fig. 2.

Illuminating-chamber *C* is separated from the combustion-chamber within fire-pot *A*, by two covers, *P* and *Q*, either of which may be opened at pleasure.

On each side of the stove, and assisting to support the elevated oven *M*, are constructed the two outside ascending flues *K*, as shown in figs. 1 and 2.

Underneath the back part of large cover *P* is placed a fire-brick, *Y*, or other fire-proof substance, to prevent the burning of that part of the top of the fire-chamber, as shown in figs. 1 and 2.

At *b*, in fig. 5, are seen, in section, two small tubes, which extend from near the top of reservoir *B* down to the fire-pot or combustion-chamber, into which they enter. The purpose of said tubes *b* is to convey whatever gas may accumulate in the reservoir *B*, from it down to the fire-pot *A*, there to be consumed.

At *a*, in fig. 1, are shown, by dotted lines, two small tubes, to conduct the gas that may accumulate within illuminating-chamber C, into the top of reservoir B.

At *m*, in fig. 1, is shown a small tube or aperture, to admit cold air into descending flue D, for the purpose of supplying oxygen, in order to consume the gases within the combustion-chamber within fire-pot A.

Within the ash-pit I, as shown in fig. 2, is placed a register, *l*, opening into one of the ascending flues 2. This register *l* may be opened, to admit cold air through the ash-pit into the ascending flue 2, to check the draught of the fire, or it may be used, when shaking the grate of the stove, to carry off the dust arising from shaking the grate.

It will be seen from the above description, that by turning damper R, within flue L, to the position shown in fig. 2, the stove may be used as a direct-draught stove. Also, that the illuminated chamber C may be lighted up at pleasure, by opening one or both of its bottom covers P and Q. Also, that this improved reservoir-stove may be used as a cooking-stove, as well as for a heating-stove, for baking and broiling may be easily and well done by the arrangement and construction above described.

Having described my invention, its construction and mode of operation,

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

1. The construction of illuminating-chamber C, with covers P and Q, or their equivalents, whereby all light from the combustion-chamber, within fire-pot A, may be excluded at pleasure.

2. The combination of direct-draught flue L and reservoir B, with illuminating-chamber C, substantially as herein set forth.

3. The combination of reservoir B and fire-pot A, with illuminating-chamber C, substantially as and for the purpose herein set forth.

4. The combination of elevated oven M, with flues K K and L, reservoir B, and fire-pot A, as herein shown and described.

5. The combination of register *l*, with ascending-flue 2, in the manner herein shown.

GEORGE A. WING.

Witnesses:

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