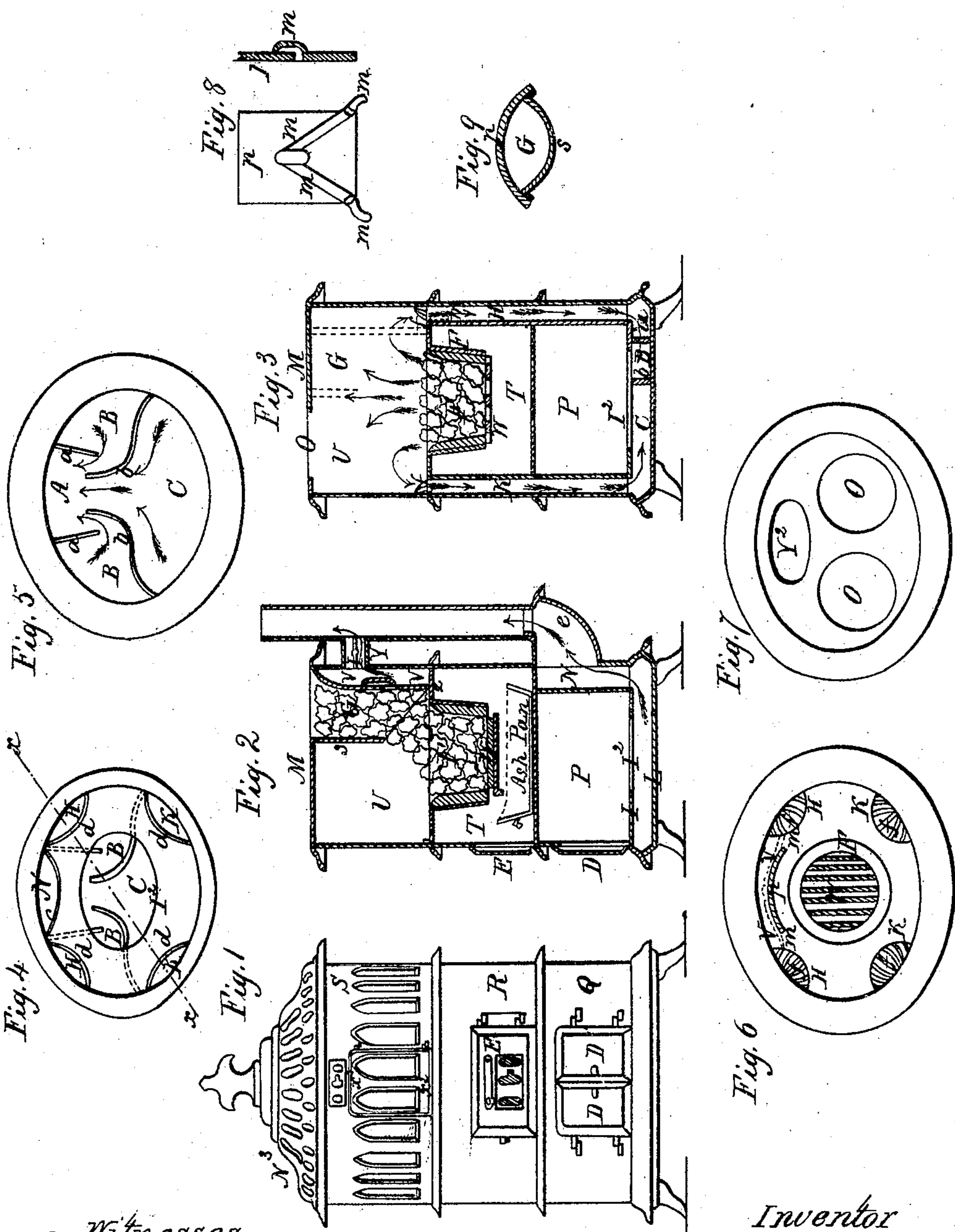


W. DOYLE.
Cook Stove.

No. 100,992.

Patented March 22, 1870.



Witnesses
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United States Patent Office.

WILLIAM DOYLE, OF ALBANY, NEW YORK.

Letters Patent No. 100,992, dated March 22, 1870.

BASE-BURNING PARLOR COOKING-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, WILLIAM DOYLE, of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Base-Burning Parlor Cook-Stoves; 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 front elevation of my invention.

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

Figure 3 is a vertical central section, taken on the plane of the line *xx* in fig. 4, and running through two of the descending flues, H and K.

Figure 4 is a plan or top view of plate I of the stove, which forms the bottom of the oven P.

Figure 5 is a top view of plate L, which, with plate I, forms the double bottom of the stove.

Figure 6 is a top view of the fire-pot F and descending flues H H and K K.

Figure 7 is a view of plate M, showing two boiler-holes and the feed-aperture for the fuel-reservoir G.

Figure 8 is a back and sectional view of the back plate *p* of the fuel-reservoir and the gas-tubes *m m*.

Figure 9 is a horizontal section of fuel-reservoir G. Similar letters of reference indicate like parts in all the figures.

My invention consists in a new arrangement of flues in a base-burning parlor cook-stove, in combination with an oven in the base of the stove, beneath the ash-pit of the same, said oven having flues passing through it from the combustion-chamber of the stove, and thence under it in a novel manner, as will hereinafter be set forth; also, in the novel and useful combination of a top plate, M, so constructed as to answer for culinary purposes, with a reservoir-stove, having an extension-flue under the oven, and in the base of the stove.

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

I construct my improved base-burning parlor cook-stove in three sections, or separate and distinct chambers, designated by letters Q, R, and S, as shown in figs. 1, 2, and 3.

The base or bottom of the stove is constructed of two plates, I and L, which are secured firmly together, and between which are formed the four bottom flues, C, B, B, and A, by means of flue-strips *b b* and *a a*, in the manner shown in fig. 5.

Plate I, which forms the bottom oven-plate, is perforated at its ends for the flues H H and K K, and at its back for flue N; and upon said plate I are placed

flue-strips *d d* and *c*, forming the flues H H, K K, and N, just mentioned.

Above the double base of the stove, I construct section Q, so as to form an oven, P, as shown in figs. 2 and 3, having front doors, as shown at D in fig. 1.

Said oven P is heated by nine flues, five of which are at its ends and back, and four are beneath it. Thus nearly all the heat passing from the combustion-chamber U may be made to circulate around and beneath the oven by closing damper *l* in the cross-pipe Y.

In the center of the bottom oven-plate I is constructed a large oval aperture, *I*², having a cover fitted tightly to it, and held in place by means of buttons or other well-known fastenings used for flue-stoppers.

By means of said central opening in the bottom oven-plate I, the bottom flues A, B, B, and C may be cleared of soot at any time.

Flue N, at the back of the oven in section Q, is carried outside the body of the stove by a curved projection, *e*, as shown in fig. 2; or it may be carried directly from the base of the stove, and not through the oven at all.

Above the oven P, I construct the ash-pit section R.

Within this section I suspend the fire-pot F, with its grate W, as shown in figs. 2 and 3.

The four descending flues H H and K K pass through this section of the stove, and continue down through the oven P to the double base of the stove, as shown in fig. 3.

The descending flues H H and K K commence at a point level with the top of the fire-pot F, as shown in fig. 3; or they may be carried above the top of the fire-pot.

Above the ash-pit section R, I construct the illuminated section S, as shown in figs. 1, 2, and 3.

Within this upper and illuminated section of the stove, I construct a reservoir, G, for fuel, of a novel and peculiar form.

Said reservoir G is constructed of two plates, *p* and *s*, which are firmly bolted together when in place in the stove.

The form of the fuel-reservoir is shown in sectional view in fig. 9.

The back plate *p* of the reservoir G extends from the top plate M to the plate Z, which divides the illuminated from the ash-pit section of the stove.

The width of back plate *p* of the reservoir G is such as to reach nearly to the back flues H H.

A flue, V, shown in figs. 2 and 6, is constructed by placing back plate *p* of reservoir G at a distance of about one inch from the back of the stove, as shown in the accompanying drawings.

The front semicircular plate *s* of the reservoir G is cut off obliquely in front, where it projects over the fire-pot F, for the purpose of allowing the fuel to pass

freely out of the reservoir, and over to the front of the fire-pot, as shown in fig. 2.

Upon the top openings of flues H H and K K, I place little grated covers, *ff*, shown in figs. 3 and 6, to prevent coals from falling down the flues.

It will be seen, by examining fig. 5, that flue C in the base of the stove extends beyond the ends of flue-strips *a* into flue A. The effect of this is to produce a steady and even draught through all the down flues of the stove, and, when the damper *l* in cross-pipe Y is closed, the fire may be kept burning steadily with very little attention, and the oven P may be kept in baking order all day, if desired, and boiling may be done on the top of the stove at the same time.

The gas that may accumulate in the reservoir, I conduct down to the combustion-chamber U, near the top of the fire-pot, into descending flues H H, by means of two pipes *mm*, branching from a central one, the bottom of which opens downward into the reservoir G, as shown in fig. 8.

When desired, the top of the stove may be covered by an ornamental open-work cover, *N*³, as shown in fig. 1, so that the stove will then look like a parlor-stove, presenting no indications of a cook-stove, and yet will be ready at any time to be used as such.

The top plate M may have only one boiler-hole in it, if desired, as will perhaps be advisable should the stove be made round instead of elliptical, as herein shown.

It will be seen, from the above, that as there is but one damper, *l*, in the stove, it can be easily managed. It may be used as a reservoir-stove, or it may be fed

with fuel through the door *X*² in the illuminated section.

The mode of its operation will be as follows:

On starting the fire, which will be done through the door *X*², the damper *l* in the cross-pipe Y will be opened. When the smoke has passed off, and the fire well ignited, fill the reservoir G with fuel. Then close the damper *l*, and regulate the draught of the fire by means of registers in the ash-pit doors, in the well-known and usual manner.

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

1. The mode of constructing flue V between the back plate *p* of reservoir G and the back plate or outer casing of a stove, and having its top and bottom closed and its sides open, substantially as herein shown and described.

2. In a reservoir-stove constructed with an oven, P, below the ash-pit, the arrangement and combination, with said oven P, of flues H H K K and extension-flue C, substantially as herein shown and described.

3. In a base-burning stove constructed in three sections, Q, R, and S, the combination and arrangement of its top plate M, constructed with a feed-aperture, *Y*², for reservoir G, and one or more boiler-holes, O, substantially as herein shown, and for the purpose set forth.

WM. DOYLE.

Witnesses:

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