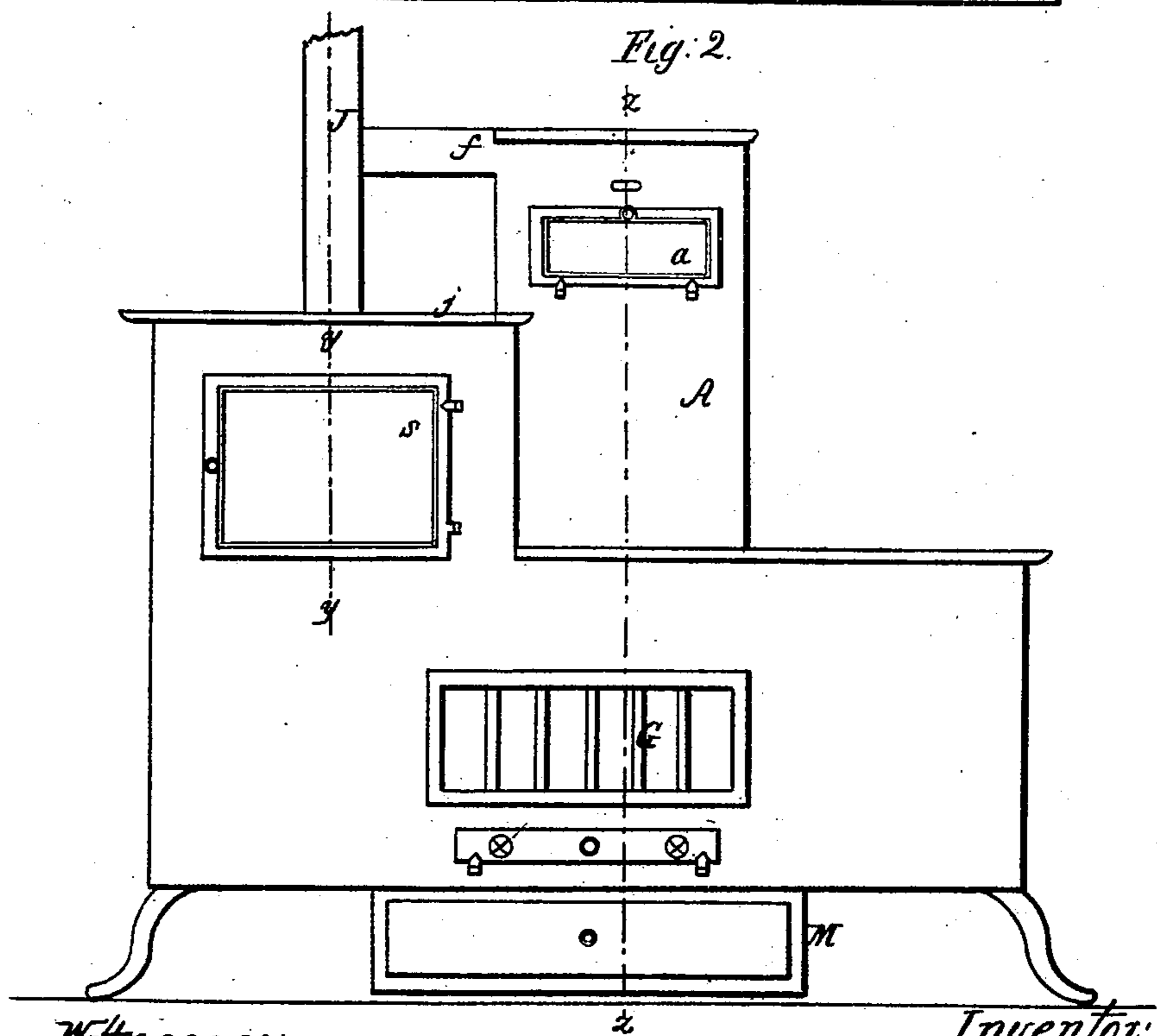
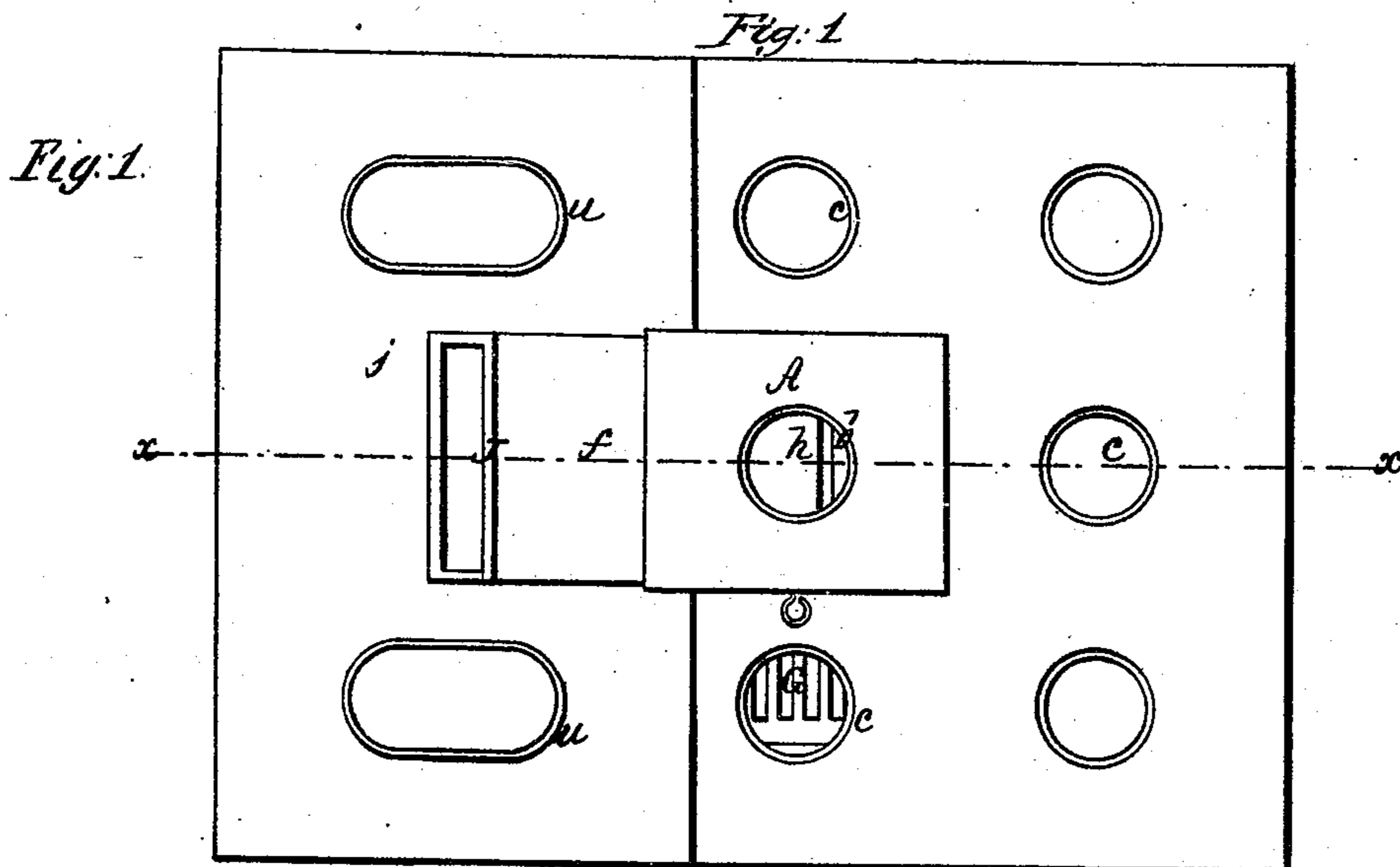


T. P. ROSSITER.
Cooking Stove.

No. 89,505.

Patented April 27, 1869.



Witnesses;
J. P. Rossiter
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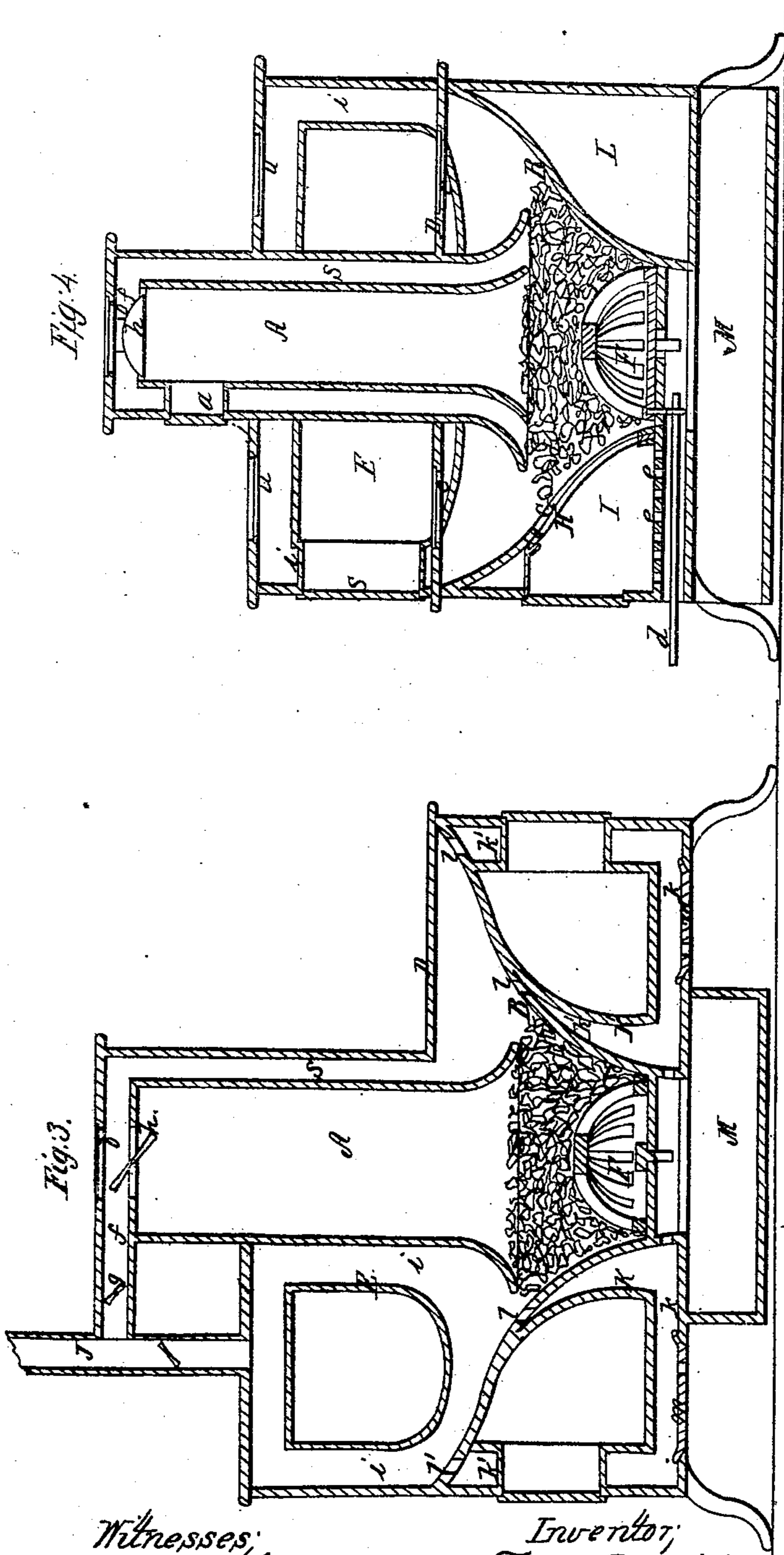
Inventor;
J. P. Rossiter
per J. P. Rossiter
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United States Patent Office.

THOMAS P. ROSSITER, OF COLD SPRING, NEW YORK.

Letters Patent No. 89,505, dated April 27, 1869

BASE-BURNING 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, THOMAS P. ROSSITER, of Cold Spring, in the county of Putnam, and State of New York, have invented certain new and useful Improvements in Base-Burning Cooking-Stoves and Ranges, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a plan, and

Figure 2 a side elevation of a base-burning cooking-stove, constructed in accordance with my invention;

Figure 3 is a vertical section of the same, taken as indicated by the line *x x* in fig. 1; and

Figure 4, an irregular vertical section, taken at right angles to fig. 3, through two distinct lines or planes, as denoted by the lines *y y* and *z z* in fig. 2.

Similar letters of reference indicate corresponding parts.

My invention consists in a novel construction and arrangement of certain parts of a base-burning stove applicable to general heating and cooking-purposes, whereby much economy and many conveniences are secured substantially as hereinafter described.

Referring to the accompanying drawing—

A represents what may be termed a central vertical reservoir for coal, that may be fed in either through a side door, *a*, or through a top opening, *b*, in the outer shell or case to said reservoir, which is constructed with hot-air flues, *s*, on one or three sides of it.

The coal, in descending through the reservoir A, falls into a central fire-pot or receptacle, B, which is mounted or covered by an upper plate, D, having openings *c* in it, above the ignited coal, on three sides of the reservoir, and a main oven, E, on the fourth side of the latter.

The bottom of the fire-pot B is fitted or provided with an internally convex-shaped grate, F, that, to effect clearance, is shaken laterally by a bar, *d*.

The fire-pot B may be of cylindrical or oval form, if desired.

The reservoir A may, if desired, be of cylindrical, oval, or other shape, instead of parallelogramic form, in its transverse section.

The same may also be made of any suitable shape, at or toward its lower end, and the lower portion of it be constructed to slide up and down, or be provided with a slide for raising or depressing the bottom of the reservoir to discharge much or little coal.

This slide may be raised or lowered by vertical rods having screw-threads on their lower ends arranged to work in or through the corners of the slide, said rods being turned by nuts on the top of the reservoir.

On one side of the central fire, the fire-pot B is shown, constructed or provided with a grate, G, having a closing slide, H, to a roasting-chamber or oven, I, to which a reflecting bonnet may, if desired, be attached in front.

The bottom plate of this roasting-chamber should

have air-holes, *e*, through it, and be provided with a sliding damper arranged to extend under the grate F.

The top opening *b*, in the outer shell or case to the reservoir, communicates with the upper horizontal flue *f* that connects, under regulation by a damper, *g*, with the smoke or draught-pipe J.

This opening *b* may serve to accommodate a boiler or cooking-utensil, or, as before observed, answer as a feed-opening for the fuel.

The upper end of the reservoir, immediately below said opening, should be provided with a valve, H.

The main oven E, which may be of any suitable shape, is surrounded, or its sides provided with flues, *i*, in communication with the fire in the fire-pot B, and with the smoke-pipe J.

Said oven is fitted with a door, S, at either or both of its ends, and the top plate *j* over the oven made with holes or openings, *u*, for removable boilers to fit in or be arranged over.

Beneath the main oven E is an auxiliary oven or oven-space, K, and at the opposite end of the stove a similar auxiliary oven or oven-chamber, K', such auxiliary ovens, when inserted, leaving hot-air flues *k k* beneath and around or up the sides of them in communication by holes *l* with the fire-chamber or pot B, near its top, and by openings *l'* with the flues surrounding the main oven E, suitable air-holes in communication with the bottom flue *k*, to promote circulation, being also provided.

The bottom plates or portions *m m* of them to or below these auxiliary ovens or oven-chambers should be removable to facilitate cleaning out.

On the side of the stove opposite the roasting-chamber I, is a hot-air chamber, L, which may be used as a "water-back," or, when provided with a grate similar to G, as an auxiliary roasting-chamber.

M is a chamber or space running across the stove below the grate F, and open at opposite ends for insertion and removal of the ash-pan from either side of the stove.

A base-burning cooking-stove and range thus constructed presents many conveniences and advantages, the same combining economy with utility. Thus, when the fire is lit, if the reservoir A be replenished as fast as the fuel is consumed, the fire can be kept continuously going, and by the various draughts and dampers can be so regulated as to produce a most active or slow fire, as required under a varied distribution of the heat to the different chambers, together with a most economical combustion of the fuel. It is impossible, too, for the coal to choke or foul, so that the fire need not be allowed to die out, and by a proper disposition of the dampers be so shut off over night as to be in good or like burning condition the following morning.

No fire-brick is needed, and the flues are so simple and direct as not to clog with ashes or soot, and so as to admit of being easily cleaned.

The internally convex grate F serves to distribute

or feed the air equally, is durable, easily replaced, and free from clogging or choking.

The grate G possesses like features.

The stove proper can be used by itself without the casing and ovens *k k'*, for merely heating the apartment without reference to the cooking-conveniences it combines with it, the combustion of the coal being thorough for whatever purpose the stove may be used, and a slight shaking of the grate F always freeing it of ashes.

Two different forms of boilers may be used on the top plate J, heated by the flue or space above the main oven E, the one an ordinary straight boiler and the other constructed to embrace three sides of the smoke-stack, with the flue that connects with the reservoir A running over or through it, thus giving a large water-heating surface.

The auxiliary ovens have the heat conducted in a straight or direct manner beneath and around them.

The principal oven E stands at a sufficient elevation to be worked without resort to stooping.

Small coal can be used, or wood cut small, and passed through the roasting-grate G.

Ample capacity is provided for roasting without interfering with the fire or depriving any part of the general heat.

Also, the greatest convenience is afforded for working the stove on all sides, the central fire equally distributing the heat, and when encased as represented, confining the heat to the stove.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination of the reservoir A with its flues *s* and *f*, the fire-pot B, arranged to extend beyond the reservoir, and the top plate D, provided with suitable apertures *c* in it, for the reception of cooking-utensils, substantially as specified.

2. The combination of the oven E, having openings *u* in the top plate *j*, covering it with the reservoir A and fire-pot B, essentially as described.

3. The arrangement of the reservoir A, fire-pot B, and roasting-chamber or oven I, with its grate G and slide H, essentially as described.

4. The combination of a central fire-place supplied with fuel, as described, oven E, grated roasting-chamber I, hot-air chamber or water-back L, and ovens or oven-chambers K K', substantially as specified.

THOMAS P. ROSSITER.

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