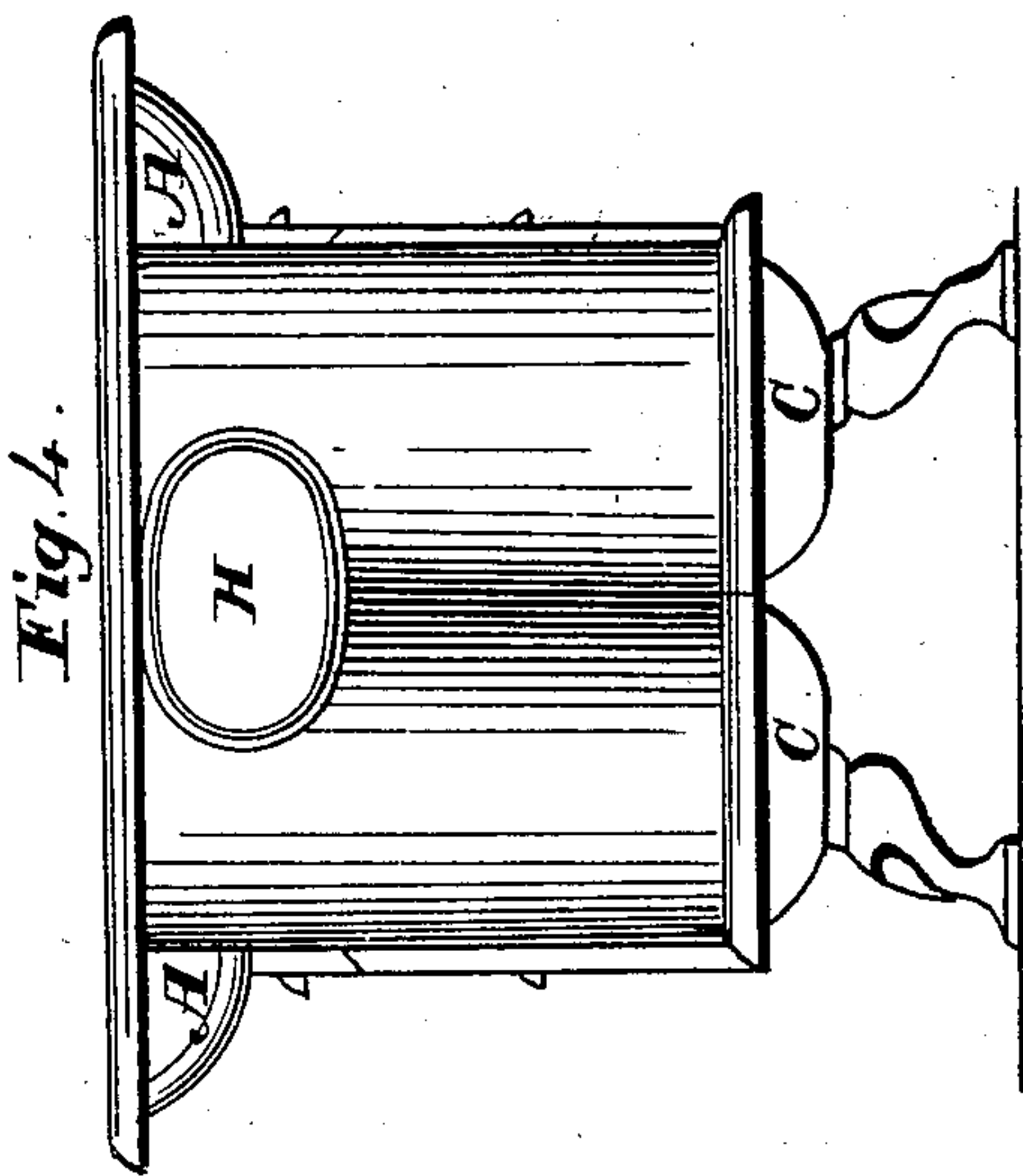
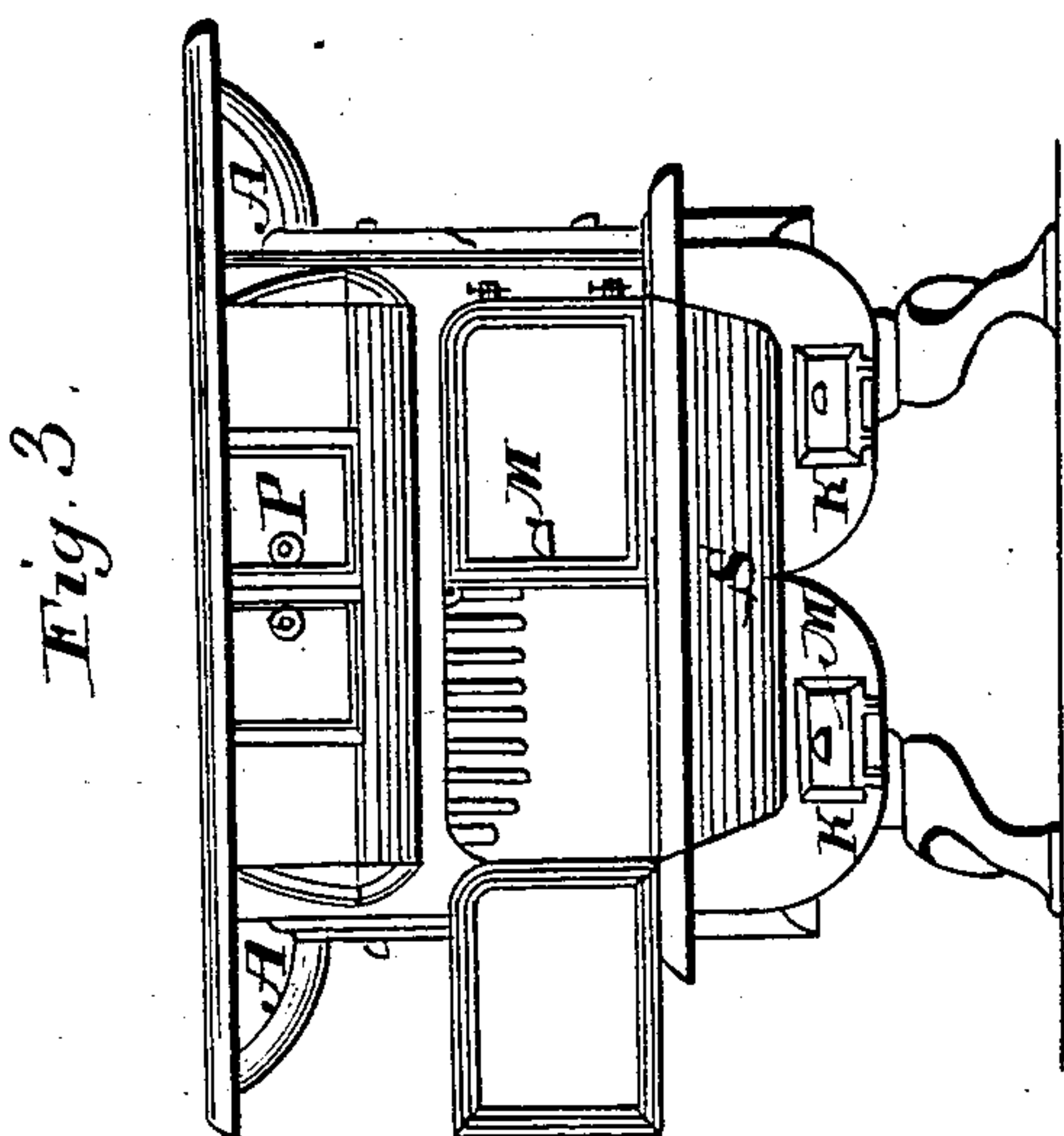
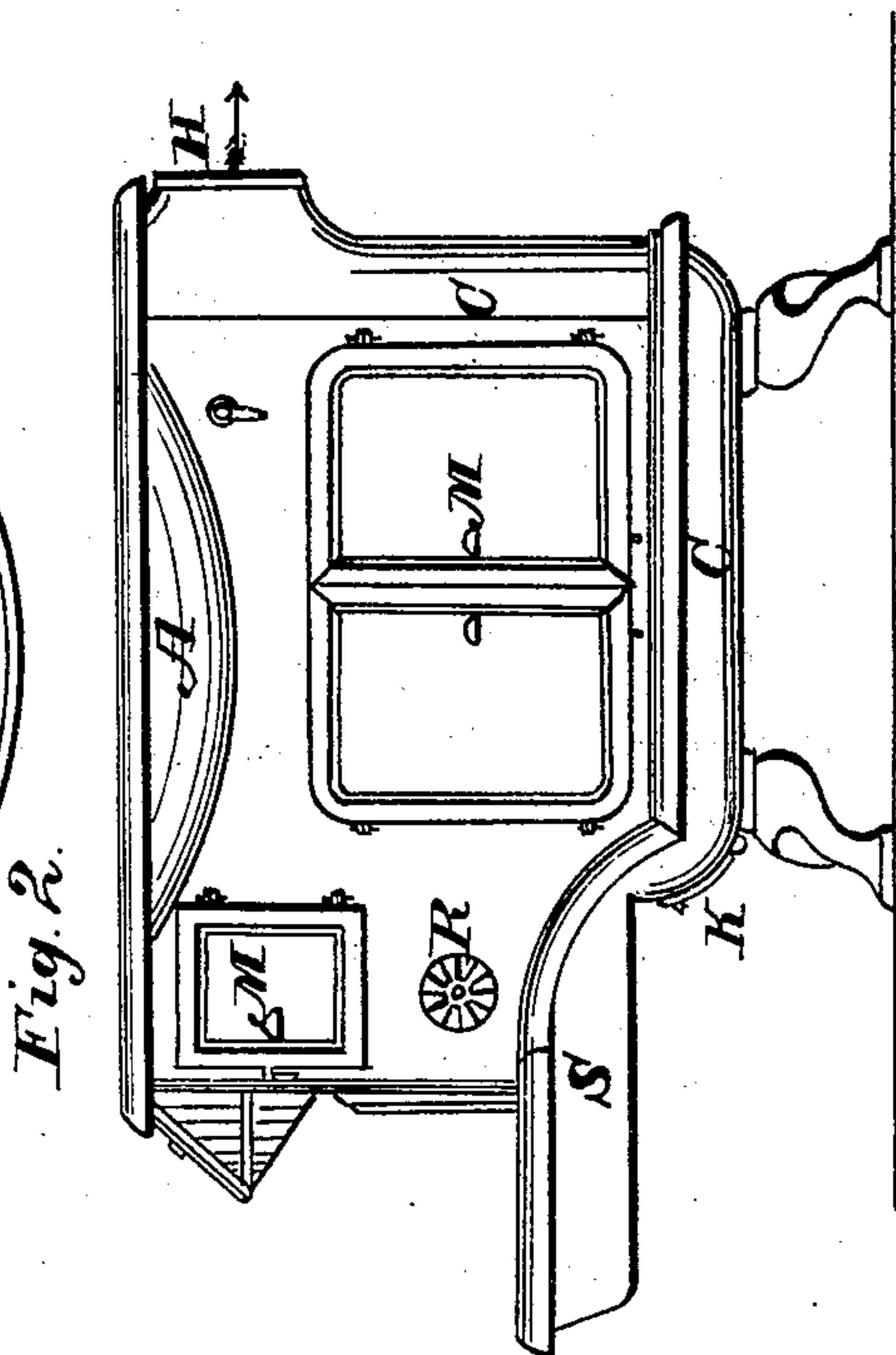
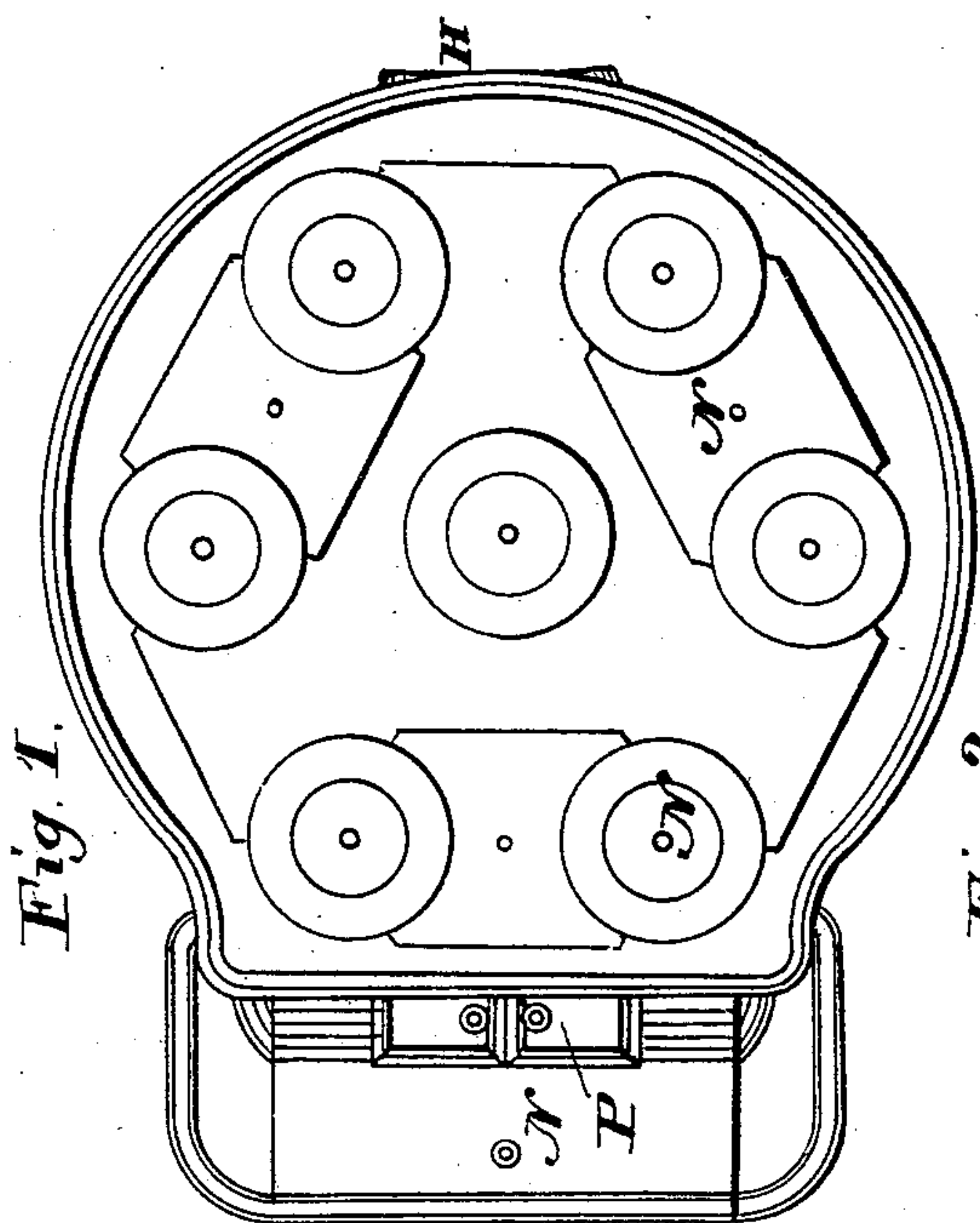


J. H. GREER.
Cooking Stove.

No. 79,652.

Patented July 7, 1868.



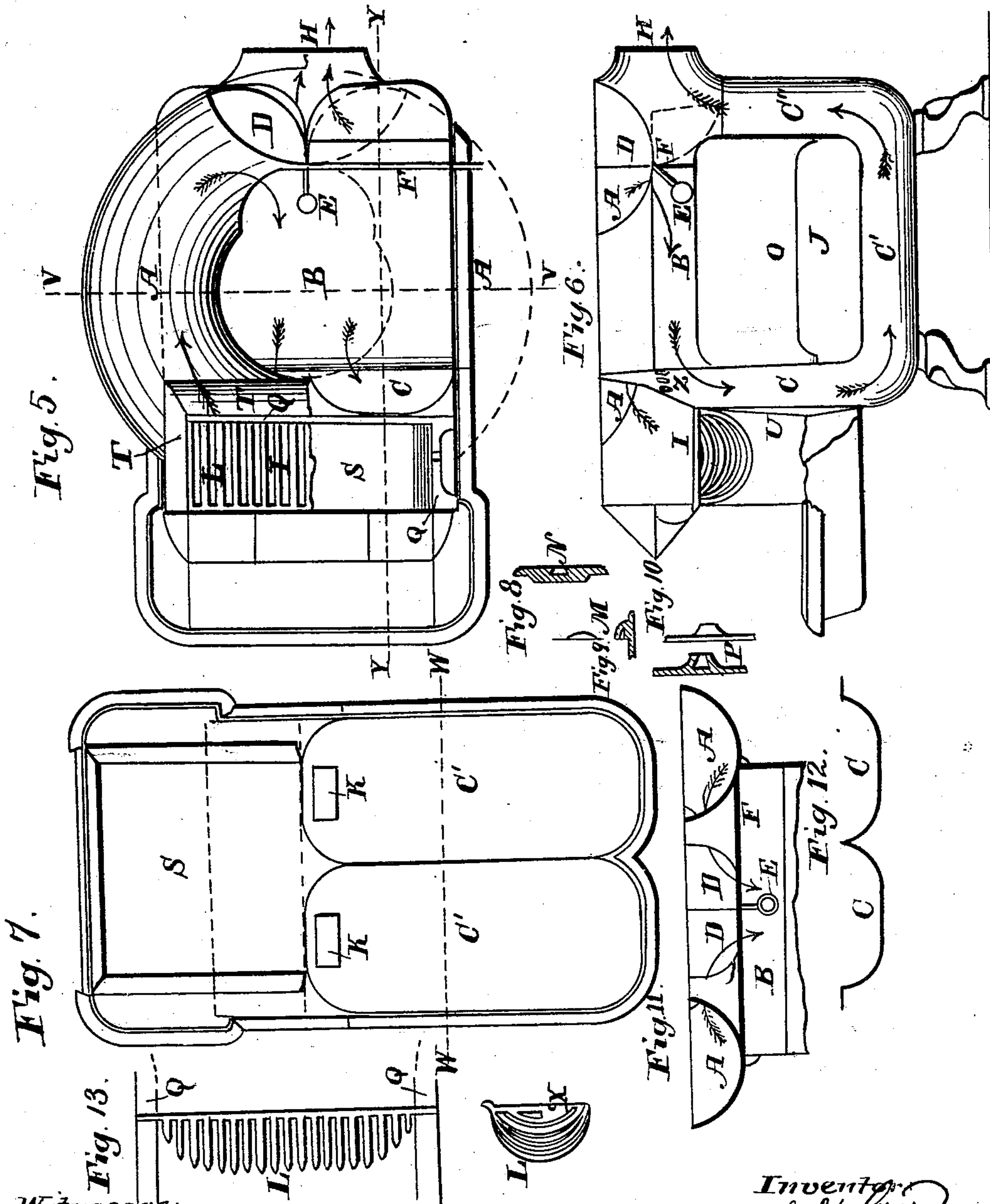
Witnesses:
A S Harvey
Philip Rees.

Inventor:
Joseph H. Greer

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United States Patent Office.

JOSEPH H. GREER, OF ROCHESTER, PENNSYLVANIA.

Letters Patent No. 79,652, dated July 7, 1868.

IMPROVEMENT IN COOKING-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, JOSEPH H. GREER, of Rochester, in the county of Beaver, and State of Pennsylvania, have invented a new and improved Cooking-Stove; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1 represents a top view of the stove.

Figure 2 is a side elevation.

Figure 3 is a front elevation.

Figure 4 is a back end elevation.

Figure 5 represents the stove with the top removed, showing a portion in section.

Figure 6 is a side elevation with the side removed, and a portion in section, taken from dotted line Y Y, fig. 5.

Figure 7 is a plan of the bottom, showing the flues.

Figure 8 is a sectional view of stove-plate, showing lift-hole.

Figure 9, plan and section of door-knob.

Figure 10, side view and section of sliding door-knob.

Figure 11, sectional view, taken through dotted line V V, fig. 5.

Figure 12, section of fig. 7, taken through dotted line W W, and also represents C C, C' C', C'' C'', fig. 6.

Figure 13, side and end view of basket-grate.

The same letters refer to the corresponding parts in each figure.

I, fire-chamber; A A, reverberating flues or passages; B, passage directly over oven O; C C, down-reverberating flues, containing perforations or orifices, Z; C' C', reverberating flues below oven, O; C'' C'', up-reverberating flues; H, exit-pipe; O, oven or baker; F, diaphragm; D, damper, and E weight or balance; T T, fire-chamber lining; U, ash-pit lining; S, ash-pit; K K, doors to flues, C' C'; R, register; M, door-knob; P, sliding door-knob; N, lift-hole; J, oven-rack; L, grate; Q, bearing-bench; and X, trunnion.

The objects of this invention are to secure economy in the consumption of fuel, by concentrating the heat to the desired heating-surface, so as to operate upon the essential parts of the stove to the best advantage, and insure perfect uniformity to the temperature of the oven.

This is attained by separating the flame and heated air, after leaving the fire-chamber I, by the employment of the peculiar-shaped flues or passages A A, having an elliptical curve, (see fig. 11,) which reverberate or send back the heat, and thus concentrate upon the plate-openings, arranged in such a manner as to give the largest number of said openings in a very compact manner. From the flues A A, the flame passes into the exit-pipe H, (which is in immediate communication with the chimney,) through the balance-damper D, as indicated in dotted position, fig. 6, when not required to heat the oven.

When it is desired to heat the oven or baker, the damper D is closed, and the flame passes from A A, as indicated by the arrows, into the chamber or passage B, thence forward and into flues C C, C' C', C'' C'', and finally into exit-pipe H, thus encircling the top, front, bottom, and back oven-plates.

All the above-mentioned flues or passages are curved at their angles, so as to admit of easy draught, and reverberate at said angles. The flues C C, C' C', C'' C'', are seen in section, fig. 12, and present an elliptical curve. The diaphragm F is placed to prevent confusion in the circulation. The damper D is weighted at E with a ball of metal, or its equivalent, thus constituting a balance-damper, and is hinged to diaphragm F. When it is desirable to lessen the heated currents in the flues, and decrease the combustion of fuel, it is accomplished by means of the register R, which is an opening, or series of openings, in the side of stove, with a disk or slide for the admission of air to circulate in the spaces between the ash-pit linings, fire-chamber linings, and exterior of flues C C, which contain perforations or orifices, Z.

The object of the register and perforations is to admit air by opening the register, which finds its way to perforations Z, and into flues, thus checking the draught by admitting air independent of the supply through the fire-chamber,

The grate L works on trunnions, X, with their centres on the upper line of bars, and removed from the front sufficiently to prevent overbalancing, and to permit the lowest extremity of the bars to pass the front in turning over when required. The bars are curved in the shape represented in the figure, or may have any other form desired, and decrease in depth at each end until they assume the form as in fig. 13, while the back of grate rests against the under side of bearing-bench Q, and the front is supported on front of stove. The oven-rack J is perforated or solid, as may be desired, curved at the sides, with flanges, which slide in grooves, provided with suitable openings at each end for the purpose of drawing in and out, and may be used on either side, as circumstances may require. The object of the rack J is to afford suitable means for support for any vessel while cooking or baking, and for pulling out while receiving attention.

The lift-hole N has the form of a truncated cone, or any other shape substantially equivalent, produced by sand coring or otherwise, and by inserting a lift-hook for that purpose, from any position, the plate is easily removed, whether the lift-hole is placed in the centre of the plate or removed to one side.

The door-knob M is hollowed out on the under side, so as to receive the lift-hook, or other instrument, for the purpose of opening the doors, and may have any exterior shape and configuration. •

The sliding door-knob P is a hollow truncated cone, or any other shape substantially equivalent, and has for its object opening and closing the sliding door.

I do not confine myself to the precise form and exact arrangement of the several parts herein described, as I may choose to vary the same, while I retain the same results by means substantially the same.

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

The reverberating-flues A A, chamber B, reverberating-flues C C, C' C', C'' C'', damper D, register R, in combination with orifices or perforations Z, grate L, rack J, door-knob M, sliding door-knob P, lift-hole N, all constructed as herein set forth, or in any other manner essentially the same, and for the purposes as specified.

JOSEPH H. GRÉER.

Witnesses:

A. S. HARVEY,
PHILIP REES.