

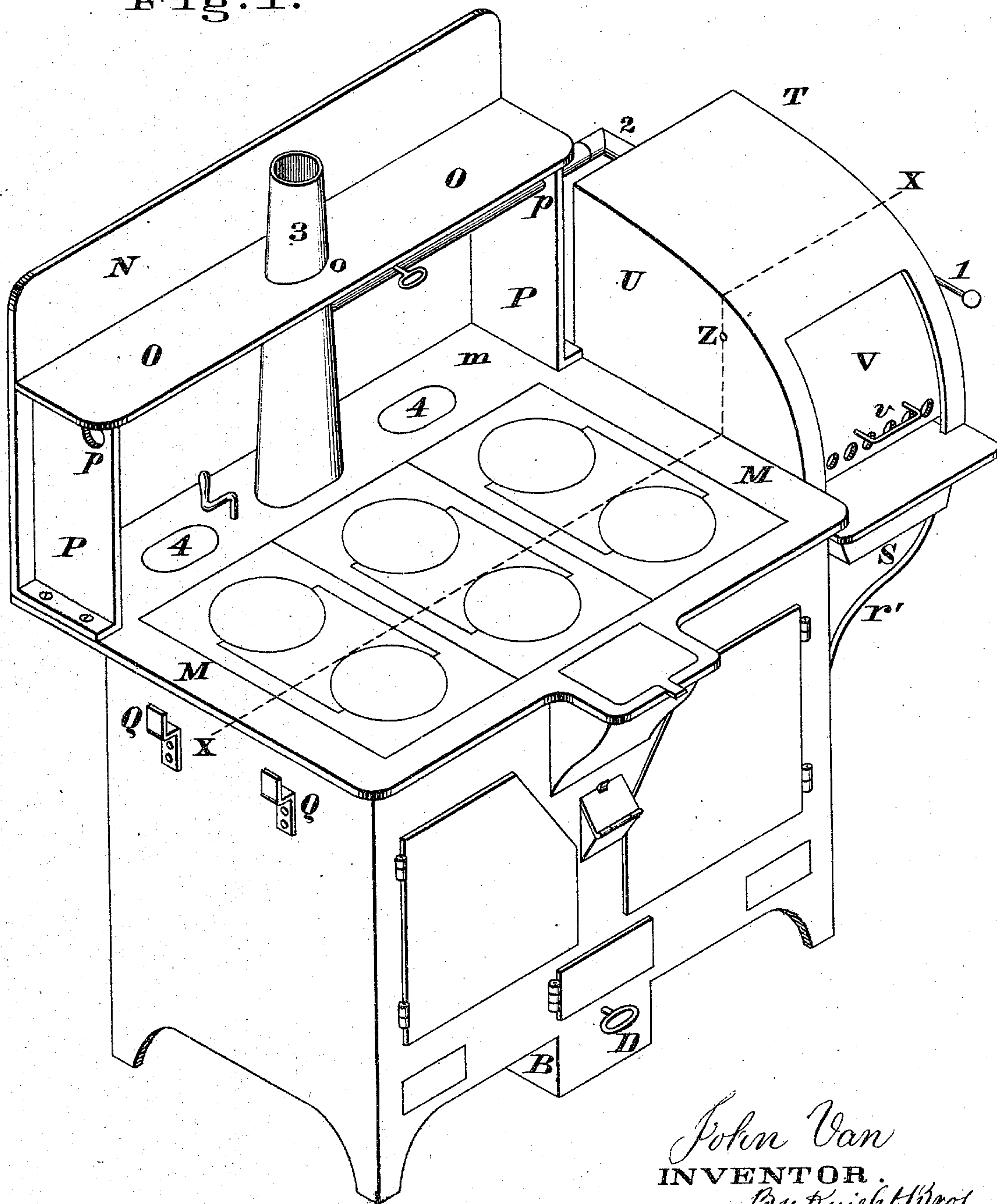
JOHN VAN.

Improvement in Portable Cooking Ranges.

119,066.

Patented Sep. 19, 1871.

Fig. 1.



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Fig. 2.

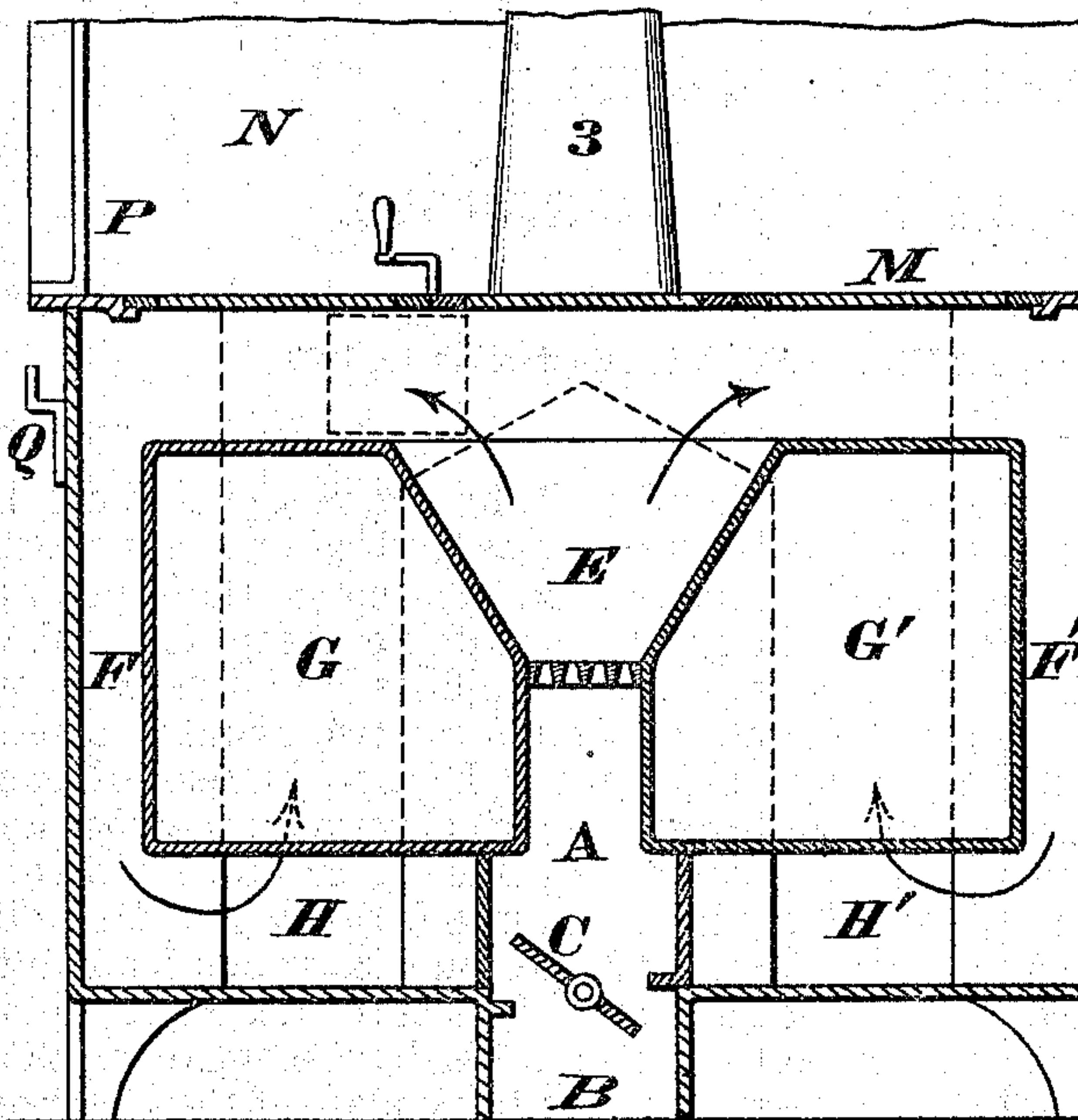


Fig. 3.

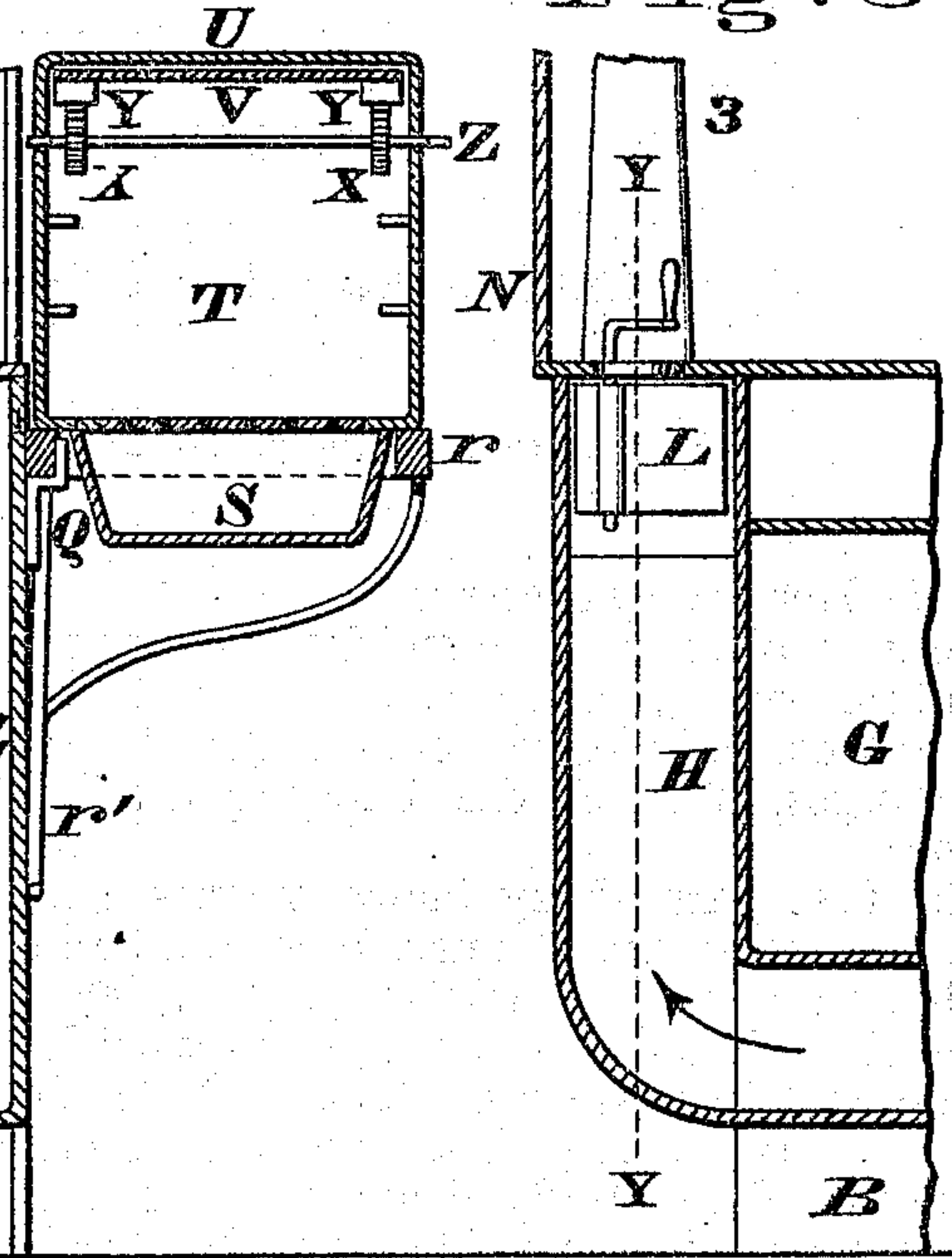


Fig. 4.

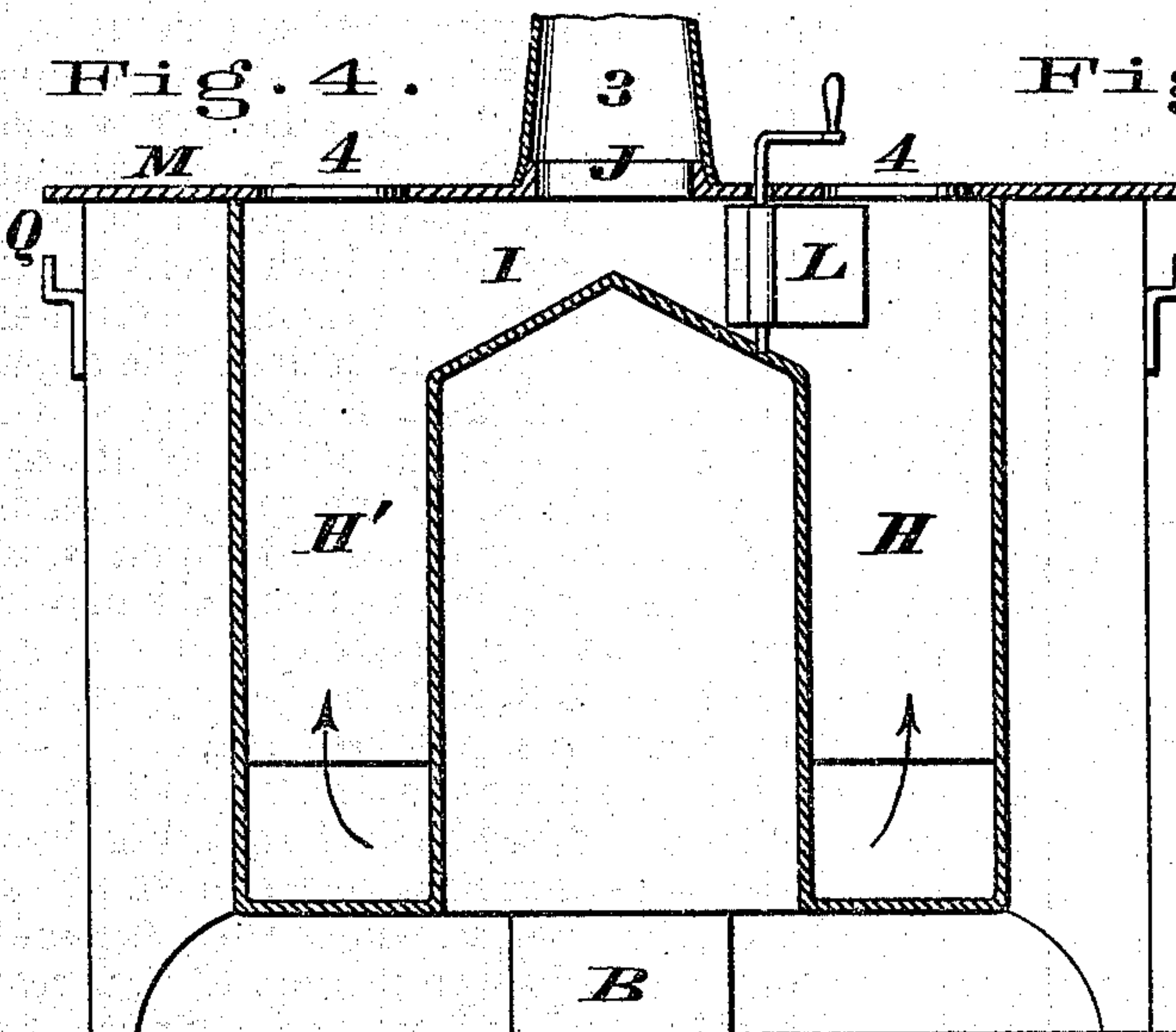


Fig. 5.

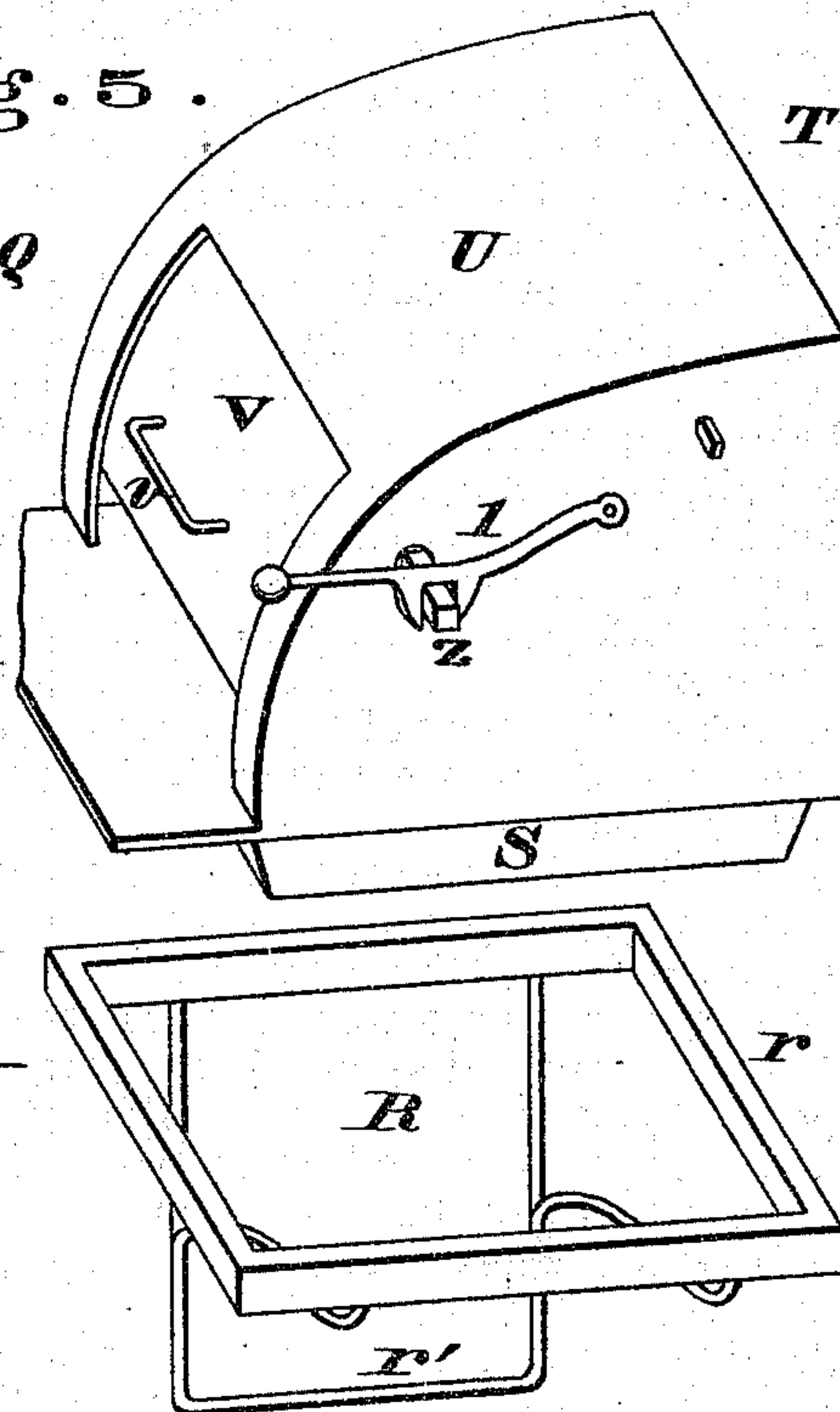
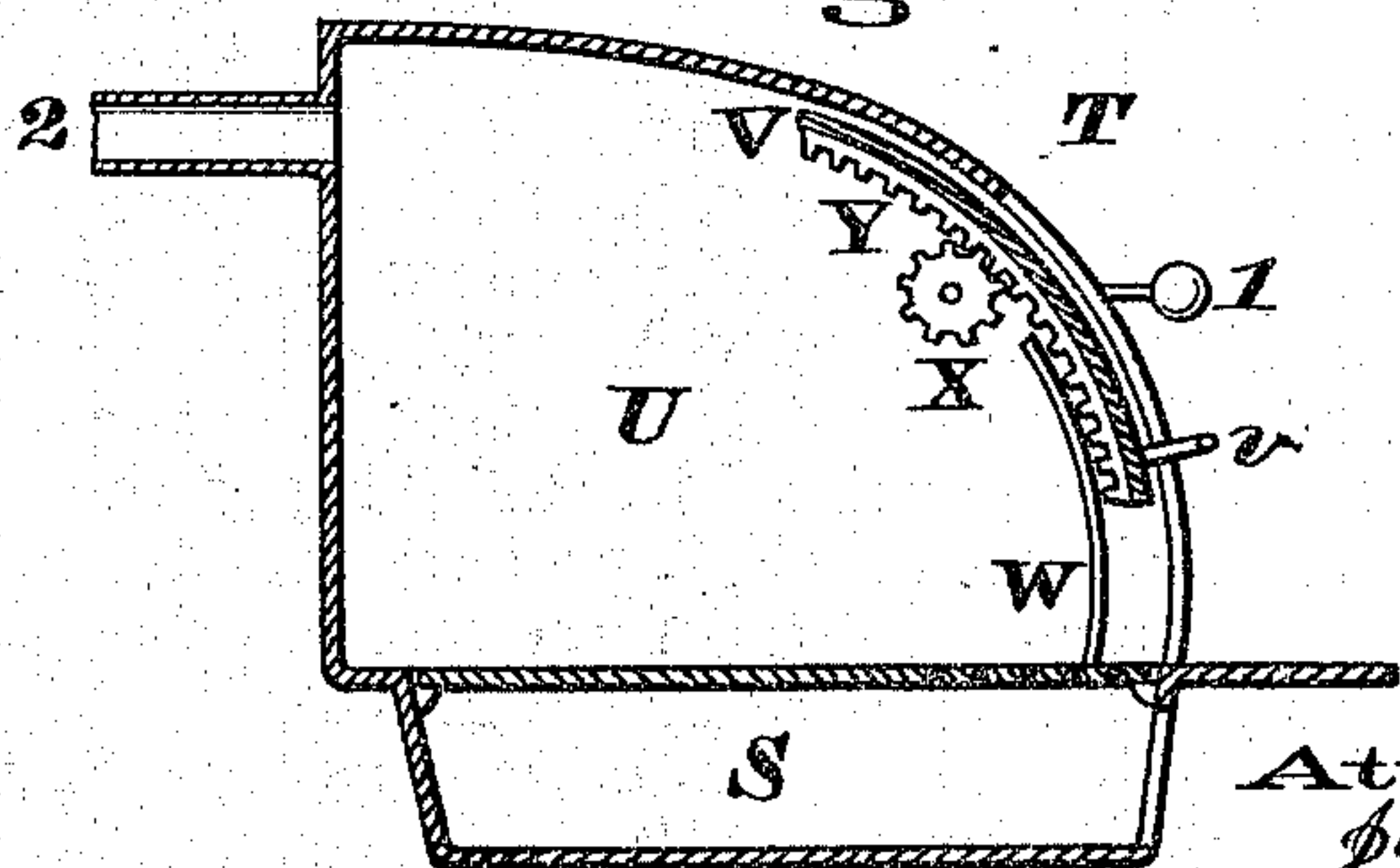


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN VAN, OF CINCINNATI, OHIO.

IMPROVEMENT IN PORTABLE COOKING-RANGES.

Specification forming part of Letters Patent No. 119,066, dated September 19, 1871.

To all whom it may concern:

Be it known that I, JOHN VAN, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Portable Cooking-Ranges, of which the following is a specification:

The first part of my improvements consists in an arrangement of flues, breeching, and extended top at the rear of the range, which combines the following advantages, to wit: Maintaining and increasing the heat of the ovens at that part; furnishing additional heating surface to the top plate; ready cleaning of the flues at this part, and, in connection with a damper hereinafter described, enabling the heating action to be restricted to one side of the stove. The arrangement of the flues is also advantageous in that, while heating the ovens, it leaves the back fire-plate exposed to the atmosphere and consequently not liable to burn out. The second part of my improvements relates to a combined shelf and back plate, which, in combination with the extended top, forms a valuable addition to the heated top surface protected from draughts of cold air, upon which surface vessels may be pushed back or placed for the purpose of slow cooking or of keeping warm, and forming a perfect guard and protection against the losing of vessels over the edge of the top when the range is full. The third part of my improvements relates to a peculiar form and adaptation of detachable broiler.

Figure 1 is a perspective view of a cooking-range embodying my improvements. Fig 2 is a transverse section of the same at the line X X, a portion of the wall-protector being broken away. Fig. 3 is a longitudinal section in the plane of the damper. Fig. 4 is a transverse section taken through the rear flues and breeching. Fig. 5 is a perspective view of the broiler and its supporting-bracket detached. Fig. 6 is a longitudinal section through the broiler.

I provide my ash-pit A with a discharging-spout, B, which extends the entire length and breadth of said pit, and which may communicate, by a pipe or flue, with an ash-bin in the cellar or basement of the house in which the range is placed. The floor of my ash-pit consists of a plate or flap, C, attached to a horizontal shaft which is journaled in the front and back plates of the body and terminates in front of the

range in a handle, D, by which the flap can be tipped, as in Fig. 1, so as to dump the entire contents of the ash-pit and discharge the same into an ash-bin or other suitable receptacle below. From the fire-box E the flues F F' diverge in opposite directions around the two ovens G G', and discharge into flues H H', one in rear of each oven, whose heat they thus serve to increase and maintain, which rear flues H H' unite in a combined flue which I term a breeching, I, that discharges by neck J into pipe K, which leads into the house-chimney. The rear flues H H', being separated from each other by the entire width of the fire-box, leave the back plate of the latter exposed to the cooling influence of the external air, and thus prevent its burning out so quickly as it would do if covered by the flue so as to have flame on both sides of it. L is a damper, which, being closed, compels the smoke to circulate entirely around one oven, or, being opened, permits it to circulate equally around both ovens, as already explained; hence, for summer use, when little fire and but one oven is desired, the apparatus may be employed as a single-oven stove, and thus save the expense of an additional stove. The top plate M of the range extends rearward to form a hot shelf, m, to which is secured a wall-protector or back plate, N, which is provided with a shelf, O, perforated at o to receive the smoke-pipe 3, and whose supporting-ends P have apertures, p, to receive and hold the smoke-pipe or pipes from one or more broilers, to be presently described. Projecting from either or both sides of the range are hooks Q, on which to hang a bracket, R, whose rim r engages over said hooks, and has projections r' that rest against the side of the range and support the said rim in a horizontal position. Resting in the rim r is the ash-pan S of my detachable broiler T, surmounted by customary inclosing-box U, whose curved front portion has a sliding door or visor, V, which visor is confined to its proper path by guides W and by pinions X, which latter mesh in curved racks Y attached to the inner surface of the visor. The pinions are mounted on a shaft, Z, journaled in the sides of the box U. One end of this shaft projects outside of the box and takes the form of a square or other non-circular arbor, z, to receive a gravitating latch, 1, that, by engaging over the said arbor, operates to hold the visor to any desired height. The vi-

sor is provided with a handle, *v*. This mode of supporting the broiler-door is believed to be a valuable substitute for the customary pulleys, chains, and counterweights, which are a source of serious annoyance and expense, by reason of their frequent burning, clogging, and wearing out. A pipe, 2, leading from the rear upper part of the box U through the apertures *p* into the chimney 3, serves to conduct off all fumes arising from the operation of the broiling-chamber. Openings 4 in the top extension, immediately over the rear flues, enable the ready clearing of the latter. These openings are closed by suitable lids.

I claim as new and of my invention—

1. The described arrangement of rear flues H H' behind the ovens, connected at their upper portion by the breeching I, whose neck J discharges into the smoke-stack through extension *m* of the top plate.

2. The combined arrangement of rear flues and breeching H H' I, extension *m* of the top plate, and elevated back plate N to a portable cooking-range, substantially as and for the objects explained.

3. In the described combination with the rear flues H H' I and rear extension *m* of top plate, the combined back-plate guard and shelf N O o P *p*, formed and arranged as and for the purposes set forth.

4. The arrangement of detachable broiler T, bracket R, hooks Q, box U, and pipe 2.

5. The visor or broiler-door V, supported in any desired position by means of the pinions X, curved racks Y, shaft Z, and latch 1.

In testimony of which invention I hereunto set my hand.

Witnesses:

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GEO. H. KNIGHT,

JAMES H. LAYMAN.

(104.)