(No Model.)

W. A. GREENE.

COOKING STOVE.

No. 411,918. Patented Oct. 1, 1889.

Fig. I.

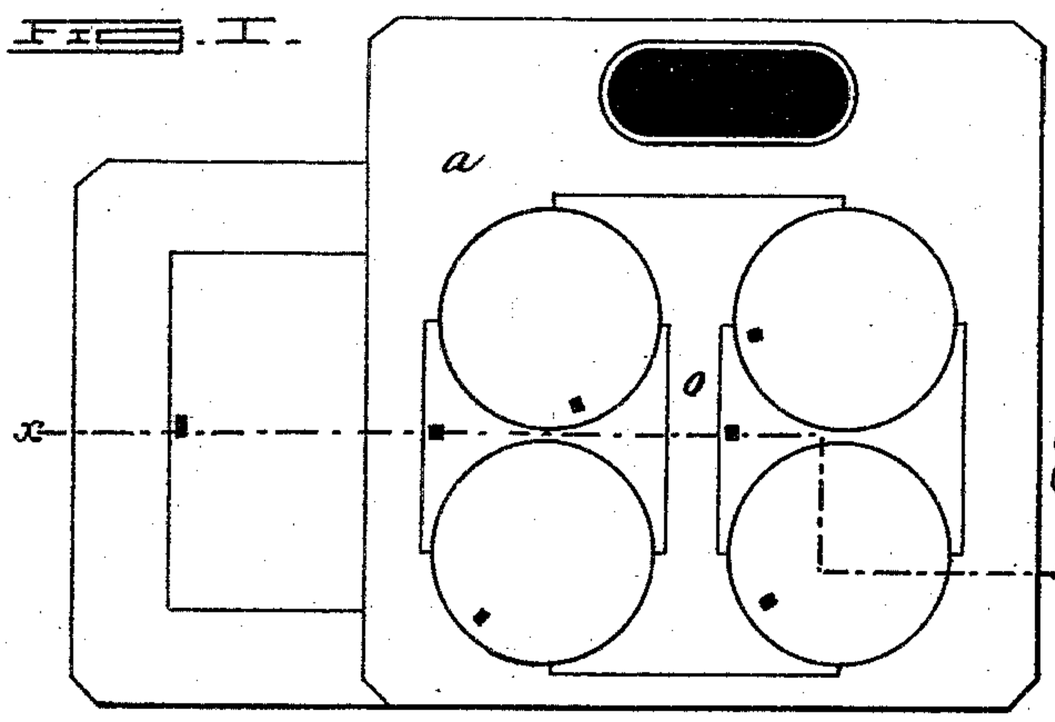


Fig. IV.

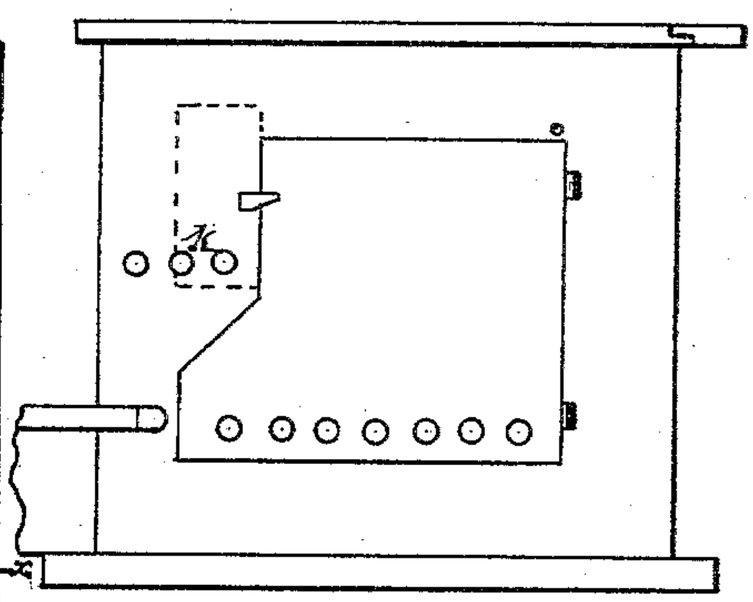


Fig. V.

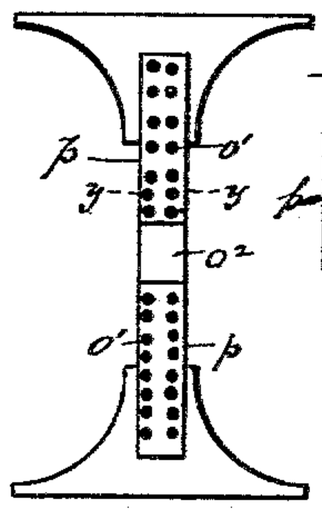


Fig. VI.

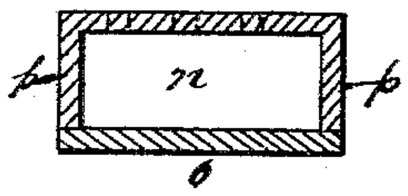


Fig. II.

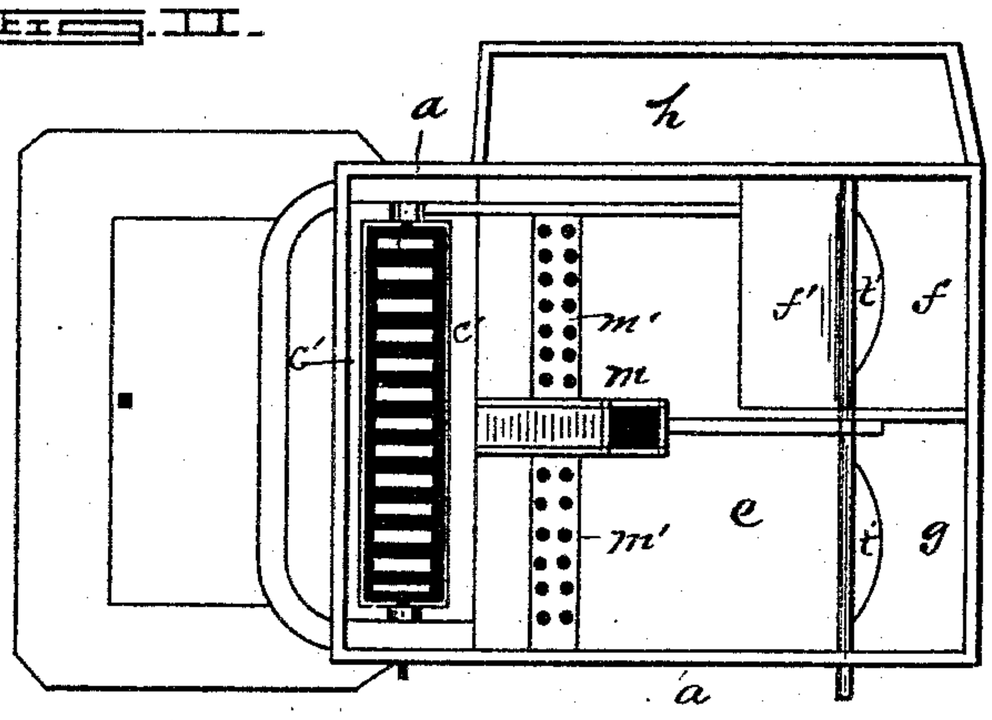


Fig. VII.

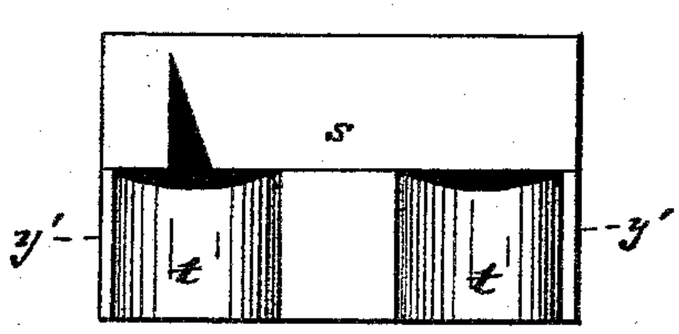


Fig. III.

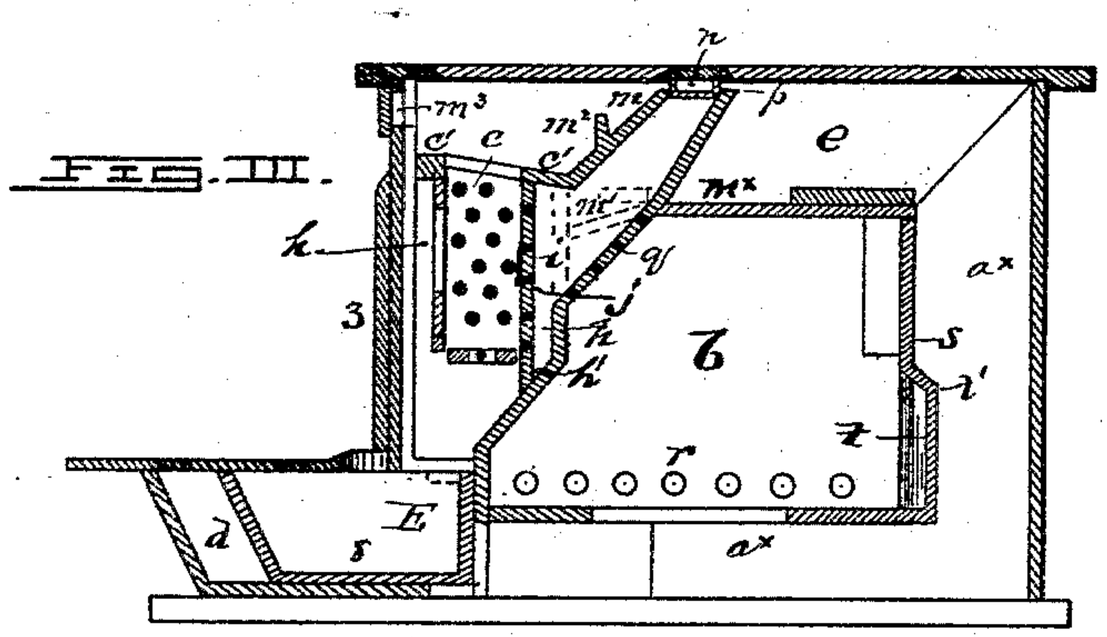
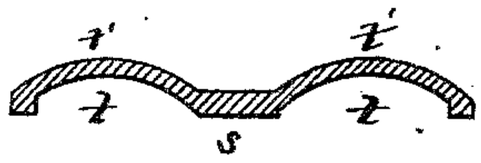


Fig. VIII.



Witnesses:-

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Asso. Atty.

UNITED STATES PATENT OFFICE.

WILLIAM A. GREENE, OF OCEAN GROVE, ASSIGNOR OF ONE-HALF TO EDWARD R. CAHOONE, OF NEWARK, NEW JERSEY.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 411,918, dated October 1, 1889.

Application filed June 18, 1888. Serial No. 277,473. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. GREENE, a citizen of the United States, residing at Ocean Grove, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in cook stoves and ranges; and it consists in the construction and combination of parts hereinafter set forth, and pointed out in the claims, the prime object of the invention being to provide a stove possessing great heating capacity with the expenditure of a minimum amount of fuel.

The accompanying drawings illustrate what I consider the best means for carrying my invention into practice.

Figure I is a plan view of the stove. Fig. II is a plan view of the same with the top removed. Fig. III is a section of Fig. I on line *x x*, taken zigzag to show the connection of the flue. Fig. IV is a side elevation of the stove. Fig. V is an inverted view of the center top piece. Fig. VI is an enlarged section on line *y y* of Fig. V. Fig. VII is an interior elevation of the rear oven-wall. Fig. VIII is a section on line *y' y'*, Fig. VII.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

The stove-shell is marked *a*, the oven *b*, the fire-box *c*, and the ash-pit *d*.

In the ash-pit *d* an ash-pan E is provided, into which the ashes and cinders from fire-box *c* may drop.

The fire-box *c* is perforated all around and is surrounded by an air-chamber *h*, the space between the fire-box and the rear wall of the said air-chamber being closed at the bottom, as shown at *h'*, so that all air entering through the ash-pit will be compelled to pass into the fire-box. The top of the air-space *h* is closed all around also, as shown, by plate *c'*, and the only opening to flue *e* above top of oven is through the fire-box or through certain diffusion-chambers, presently to be described. A passage *m* connects to the rear of the fire-box and leads up and discharges into channels or diffusion-passages *n*, which are provided on the under side of center plate *o* of the stove-lid. These passages *n* are inclosed by solid side walls *p p* and perforate under wall *o'*, a space o^2 being left in the center of the plate *o*, into which the top of passage *m* projects to deliver the heat, &c., to the diffusion-chambers *n*. The rear wall of the passage *m* may be provided with openings *q*, which establish communication between the oven and the said passage, and the plates *m'*, extending from each side of the passage to the side walls of the stove, may also be perforated for the same purpose, whereby the oven is thoroughly ventilated. The oven is also provided with openings *r*, which permit fresh outside air to enter it, thus supplying to the articles being cooked an abundance of pure air. On the front of the passage *m* is provided a hook or projection m^2, and at the front of the stove is a narrow longitudinal door m^3, which can be raised and a boiler inserted and rested upon hook m^2 to bring the body of the boiler just over the top of the fire-box. Air-openings *k* may be provided in the end wall of the stove to supply additional air to the air-space *h*.

The flue at the back of the oven is provided with a partition a^*, which extends down under the oven and divides the flue into two parts, a damper *f'* being provided to close the entrance to one of the said parts. The rear oven-wall *s* is provided at bottom with enlargements *t t*, which afford recesses on the inside of the oven to receive the sides of pans, &c., whereby the capacity of the oven is increased, and the enlargements forming on the outer rear wall of the oven projections *t' t'*, which extend into the flue at the rear of the stove and slightly retard the flow of heat, and thus increase the heat of the oven.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cooking-stove, the combination of a fire-box having an air-space surrounding it, said air-space being closed all round at the

top and also at the bottom on the rear side and having a passage leading from it up to the top of the stove, and diffusion-chambers formed on the under side of the top communicating with the passage, as set forth.

2. In a cooking-stove, the combination of a fire-box and air-space surrounding the fire-box and closed at the top thereof, and a passage leading from the air-space to diffusion-chambers on the under side of the stove-lid, said passage having openings communicating with the oven, as set forth.

3. In a cooking-stove, an extension formed on the back of and above the fire-box, having the hook or projection m^2, as set forth.

4. In a cook-stove, the combination of the fire-box, the passage m above and back of it, a hook or projection m^2 on the front of said passage, and a door m^3 at the top of the front thereof, as set forth.

5. In a cooking-stove, the combination, with a fire-box, oven, and flues around the oven, of the projections t' t' at the back of the oven in the rear flue of the stove, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of May, 1888.

WILLIAM A. GREENE.

Witnesses:

CHARLES H. PELL,

C. H. BALDWIN.