

(No Model.)

G. F. FILLEY.
STOVE OVEN DOOR.

No. 574,895.

Patented Jan. 12, 1897.

Fig. 1.

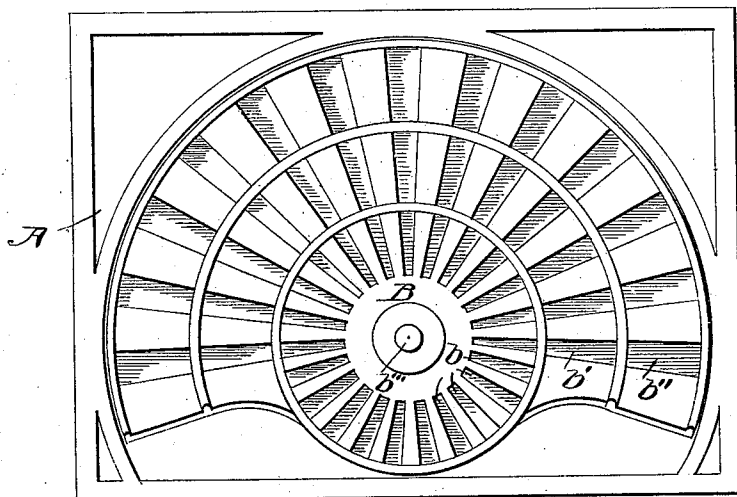
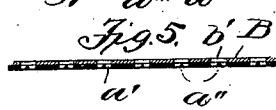
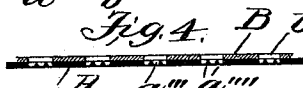
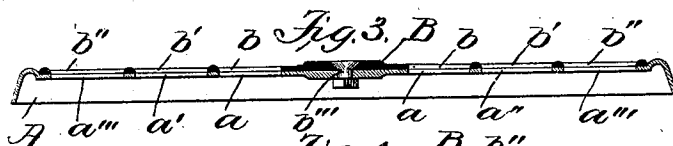
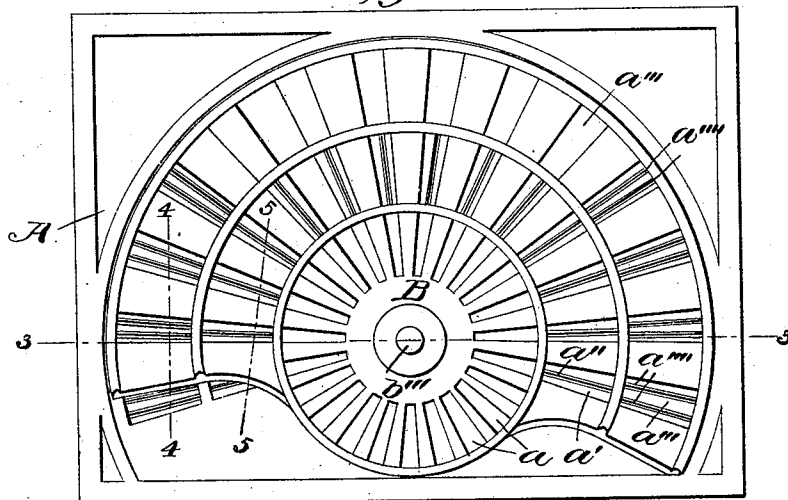


Fig. 2.



Witnesses:
G. A. Pennington
A. R. Cornwall

Inventor:
Giles F. Filley,
by Paul Baker
his atty.

UNITED STATES PATENT OFFICE.

GILES F. FILLEY, OF ST. LOUIS, MISSOURI.

STOVE-OVEN DOOR.

SPECIFICATION forming part of Letters Patent No. 574,895, dated January 12, 1896.

Application filed September 16, 1896. Serial No. 605,961. (No model.)

To all whom it may concern:

Be it known that I, GILES F. FILLEY, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Stove-Oven Doors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is an elevational view of my improved door, the register being so arranged as to close the openings in the door proper. Fig. 2 is a similar view, the register being so arranged as to open the openings in the door proper. Fig. 3 is a sectional view on line 3 3, Fig. 2. Fig. 4 is a sectional view on line 4 4, Fig. 2. Fig. 5 is a sectional view on line 5 5, Fig. 2.

This invention relates to a new and useful improvement in doors for cooking stoves and ranges; and it consists in providing a door or doors of a stove or range oven with two or more sets of register-openings which are so arranged that they are controlled by a single register. One of these sets of register-openings forms a complete circle, while the others form a part of a circle. The openings forming the outer circle are the largest, and in order to prevent too great an ingress of air through those openings which are located in the lower part of the door and at the same time diffuse the incoming cold air so that it will not strike the article being cooked in volume I provide V-shaped bars, preferably two in number, in said lower openings, while in the middle set of openings I provide a single V-shaped bar for the same purpose.

I am aware that a stove-oven door has been provided with a small register in its center, which could not be used to promote an air circulation, as here contemplated.

I am also familiar with United States Letters Patent No. 246,606, which was granted to me September 6, 1881. In this patent a large register is used to promote circulation and a smaller register is arranged in the front end of the door for the ingress of air. The register-openings are, however, covered with

55 wire-gauze, which tends to retard the circulation of air to a certain extent, and I have found by experiment that it is objectionable to retard the egress of the air from the upper part of the oven. Therefore in this present application I dispense entirely with the wire-gauze, and for the purpose of retarding and at the same time diffusing the incoming air I arrange V-shaped bars lengthwise the lower openings of the outer circles.

In the drawings, A indicates a door which is provided with a circle of narrow slits or openings *a*, a semicircle of wider openings *a'*, which openings *a'* are provided with V-shaped bars *a''*, the apices of which bars are disposed outwardly, and a semicircle of still wider openings *a'''*, which at the lower portion of the door are provided with V-shaped bars *a''''*, there being two of such bars arranged lengthwise the openings, the apices of said bars being also disposed outwardly. These bars not only reduce the area of the openings, and therefore decrease the volume of incoming air, but diffuse the entering air, so that it will not strike the article being cooked in a solid volume. The openings *a* are also made sufficiently narrow for the same purpose.

B indicates a register provided with openings *b*, *b'*, and *b''*, which cooperate with the openings *a*, *a'*, and *a'''*. This register is pivoted at *b'''*, and by giving said register a very slight rotary movement the area of the openings in the door can be regulated or closed entirely.

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

1. The combination with the oven-door of a cooking stove, or range, which door is provided with two or more sets of openings in radial line with each other, and a rotary register which is adapted to cooperate with said openings; substantially as described.

2. The combination with the oven-door of a cooking stove, or range, which door is provided with openings *a*, *a'* and *a'''* of V-shaped bars arranged in the openings *a'* and *a'''*, and a rotary register provided with openings for cooperating with the openings in the door; substantially as described.

3. The combination with the oven-door of a

cooking stove, or range, which door is provided with openings, of V-shaped bars arranged in the openings, the apices of which bars are outwardly disposed, and a register for coöperating with said openings; substantially as described.

In testimony whereof I hereunto affix my

signature, in presence of two witnesses, this 28th day of August, 1896.

GILES F. FILLEY.

Witnesses:

HUGH K. WAGNER,
G. A. PENNINGTON.