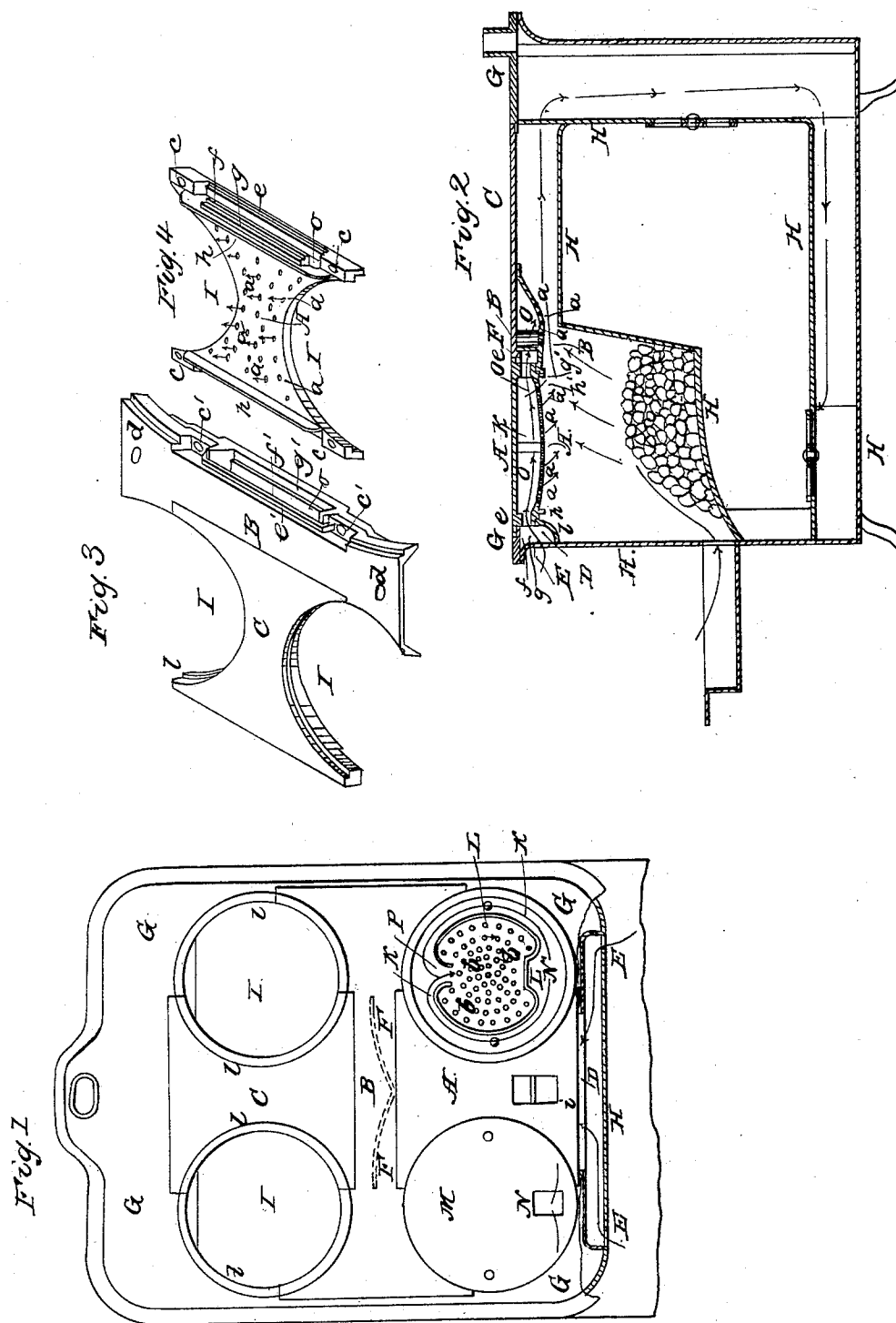


J. SPEAR.
Cooking Stove.

No. 20,450.

Patented June 1, 1858.



UNITED STATES PATENT OFFICE.

JAS. SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

COOKING-STOVE.

Specification of Letters Patent No. 20,450, dated June 1, 1858.

To all whom it may concern:

Be it known that I, JAMES SPEAR, of Philadelphia city and county and State of Pennsylvania, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the construction of center pieces, covers, and top plates on cooking stoves and ranges to prevent them from being effected by excessive heat and also for the introduction of small jets of heated air directly over the fire for the purpose of igniting the gas arising from the coal, thereby producing a better combustion of the same.

In order that those skilled in the art may make and use my invention I will proceed to describe its construction and operation.

In the annexed figures, Figure 1, represents a plan view of the stove. Fig. 2 is a longitudinal section through the center of the stove. Fig. 3 represents a perspective view of the movable center pieces. Fig. 4, is a perspective view of the center piece reversed.

I effect the object stated in the nature of this invention by means of a hollow center piece A, connecting middle center piece, B, and front center plate D, forming a flue or passage for air from the front curved plate D, to the back center piece, B, thereby bringing a current of cool air through the front center piece, directly over the fire, allowing a portion of it to escape through the small openings (*a a a*) on the under side, thereby preserving it from the injurious effects of the fire, and producing a better effect than is produced in my patent granted April 13th 1858.

At the back center piece where it connects with the front center piece, there is placed a guard F, in the center for the purpose of spreading the air to the ends of the center piece, B, before it escapes over the fire, thus thoroughly heating the air in its passage, as well as protecting the plates from the heat.

The covers (M, M) are made hollow, with opening N, at top and L, representing a guard, in the inside, for the purpose of forming a flue for the passage of air around the edges of the cover and escaping through an

opening P, in the guard, into the center of the cover, and thence passing through small openings directly over the fire, producing nearly the same effect, as the center pieces. These center pieces may be made hollow and closed at each end, with openings at top and bottom, the same as the cover, and may each be made independently of each other.

D, is a curved plate, with a lip (*i*) placed behind the front plate, for the purpose of forming a flue to conduct the air from openings E, in the front plate to the center piece, when joining them together forming a flue (O) from the front plate to the back center piece, thereby preserving them from the injurious effect of the heat.

It will be perceived that the front center piece is joined to the front plates and the back center piece in such a manner as to form a neat joint—the lip (*e*) of the front center piece corresponding with (*e'*), (*f*) corresponding with (*f'*) and (*g*) corresponding with (*g'*), and lug (*c*) corresponding with the socket (*c'*), thus securing the several parts together and forming a nice joint. Both ends of the front center piece are constructed in the same manner so that it may be reversed and made to fit either side, alike.

The same construction of center pieces, covers, and top plates can be applied to ranges with the same advantageous results.

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

1. The adjustable hollow front, and middle center pieces A, and B, perforated on the lower side, arranged and constructed in the manner herein set forth, and for the purpose described.

2. I claim the curved plate D, with lip (*i*) when connected with front plate H, and top plate G, and hollow center pieces A and B, or their equivalents, constructed in the manner and for the purpose set forth.

3. I claim the hollow covers, M, M, constructed in the manner herein set forth and for the purpose described.

4. I claim the combination of the covers as constructed with the center pieces as constructed, substantially as set forth.

JAMES SPEAR.

Witnesses:

C. M. ALEXANDER,
F. E. GLEASON.