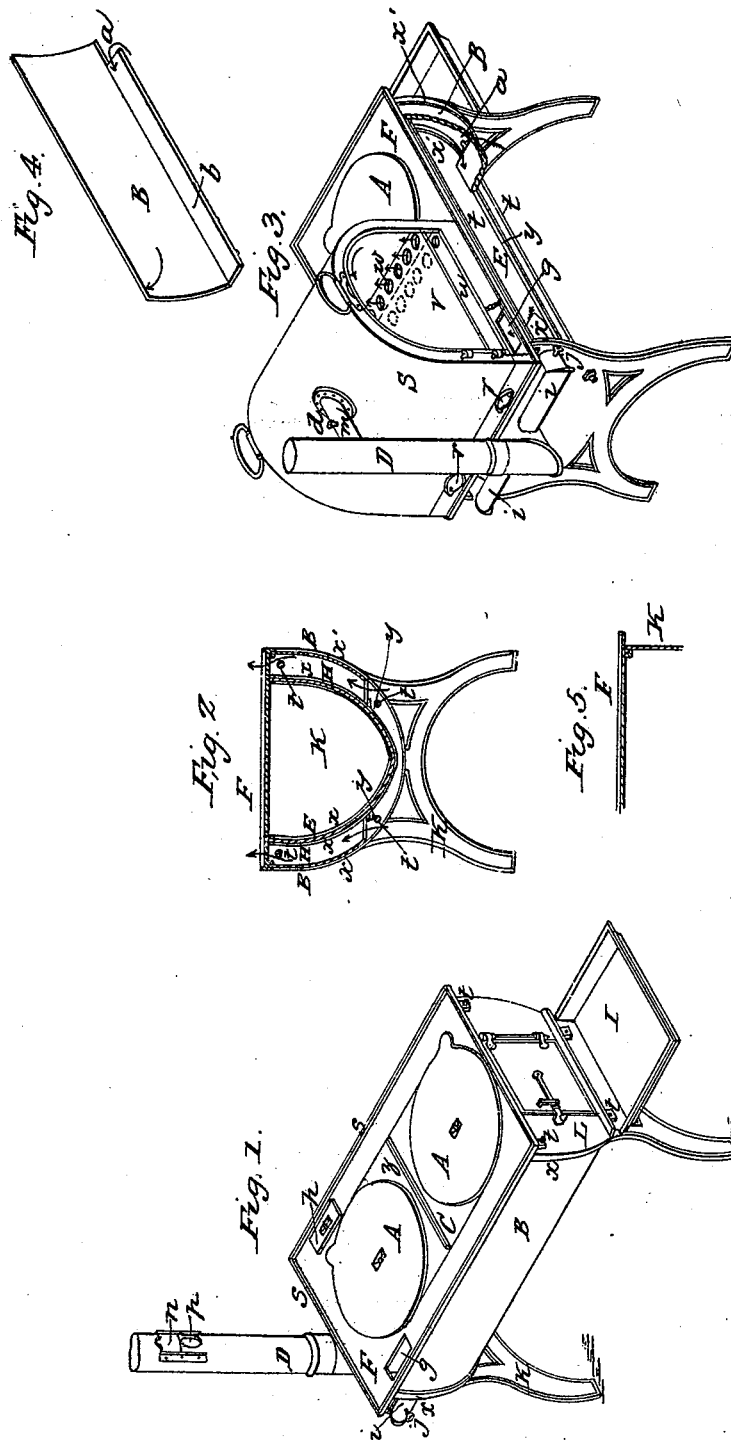


J. R. STAFFORD.

Cooking Stove.

No. 5,488.

Patented March 28, 1848.



UNITED STATES PATENT OFFICE.

JAMES R. STAFFORD, OF CLEVELAND, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 5,488, dated March 28, 1848; Antedated September 28, 1847.

To all whom it may concern:

Be it known that I, JAMES R. STAFFORD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a Simple, Compact, and Portable Summer Cooking-Stove, which I denominate the "Cottage-Stove;" and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view of the stove with the oven removed. Fig. 2, is a transverse vertical section through the same, and Fig. 3, is a perspective view of the stove and oven united, with a portion of one of the side plates broken out and the oven door removed. Fig. 4, is a perspective view of one of the side plates of the stove detached, and Fig. 5, is a section showing the manner in which the top plate is secured to the end plates of the stove.

The nature of my invention consists in the construction of a stove peculiarly adapted to summer use. Its construction and arrangement being such, that little or no heat is radiated from the stove into the room in which it is placed, but is carried off by air circulating in spaces between the fire plates and outside casings communicating with the smoke pipe. My stove is also combined with an independent oven in such a manner that it can be used either with or without the oven, as circumstances may require.

Similar letters indicate like parts in all the figures.

E, is a curved plate forming the fire chamber; B, B, are side plates or casings, inclosing the sides of the plate E, forming the air chambers H, H; F, is the top plate, A, A, are griddles, closing boiler apertures in the top plate; K, is the rear plate, L, is the front plate. The supporting legs of the stove, descend from, and are cast in one piece with the rear and front plates.

I, is the ash pan.

D, is the smoke pipe, and S, is the oven.

The fire plate, (E,) side plates or casings (B, B,) the top plate, (F,) and end plates (K and L,) are united to each other as follows. Flanges x, x , are cast on each end plate that receive the ends of the fire plate. (See Fig. 2.) The horizontal portion b of the side plates or casings, (B, B,) rest upon lateral flanges y, y , projecting from the fire plate, and their ends are supported by the

flanges x', x' , on the edges of the end plates. The top plate is secured to the end plates by hooks on its under side passing under lips on the upper ends of the end plates—as represented in Fig. 5. The rods t, t , on each side of the stove, passing through the end plates, having heads at one end and screws and nuts at the other, securely hold the respective plates together. The ash pan I, is secured to the front plate L, as represented in Fig. 1, by the lower rods t, t , on each side the stove, passing through the inner side of the ash pan and confining the same by means of the screw nuts on the ends of the rods. The horizontal portion b , of the side plates or casings (B,) does not extend to the front end of the curved portion of the same, thereby forming an opening a , into each of the air chambers H, for the admission of air into the same.

i, i , are pipes connecting the rear end of the air chambers with the smoke pipe.

Apertures g , are formed in the top plate, (F,) near its rear end, into each of the air chambers, which are closed by covers h , when the stove is used without the oven. The oven S, in its construction is entirely independent of the stove. I generally construct it of tin plates, to prevent the radiation of heat from it.

The form of the oven, is generally that represented in Fig. 3, of the accompanying drawings; having straight sides and curved top. The wire beading surrounding the door opening, is turned outward, and the wire surrounding and giving stiffness to the door, is turned inward and closely embraces the wire beading surrounding the door way when the door is closed; thereby forming nearly an air tight connection. The oven is placed on the rear end of the stove, fitting accurately between the flanges s, s , at the rear end and sides of the top plate, and the flange z , rising from the central division of plate C, (between the boiler openings.) The bottom plate u , of the oven, is elevated a few inches above the top plate of the stove, leaving a space between the two for the circulation of hot air. The front edge of the bottom plate of the oven is perforated with a series of holes w, w , for the passage of the hot air into the oven from the space beneath the same.

v , is a shelf placed within the oven, having its front edge also perforated with small openings for the passage of hot air.

m, is a pipe connecting the top of the oven with the smoke pipe *D*.

Previous to placing the oven upon the stove, the apertures *g, g*, are uncovered; then by closing the valves *j, j*, in the pipes *i, i*, a current of hot air will pass—in the direction of the arrows—from the air chambers (*H H*,) through the apertures *g, g*, into the space under the oven; passing under the bottom plate of the oven, it ascends through the apertures *w, w*, into the oven, and is drawn into the pipe *m*, leading into the smoke pipe, causing a current of hot air to circulate continuously through the oven.

d, is the handle of a valve placed in the pipe *m*, for regulating the flow of hot air through the oven.

r, r, are valves opening from the rear into the space under the oven, for the admission of cold air to reduce the temperature of the same, when necessary.

When the oven is not used the valves *j, j*, are opened, allowing a current of air to pass through the chambers (*H, H*,) into the smoke pipe—thereby preventing radiation of heat from the side casings, (*B, B*,)

Having thus fully described the construction and operation of my cottage stove, what I claim therein as new and desire to secure by Letters Patent, is—

The combination of the independent oven with the hot air chambers (*H, H*,) the smoke pipe (*D*,) and the top plate of the stove, in such a manner that the stove can be used either with or without the oven, and the temperature of the oven when used, be perfectly regulated and governed, substantially in the manner herein set forth.

JAMES R. STAFFORD.

Witnesses:

A. M. PERRY,
R. R. Root.