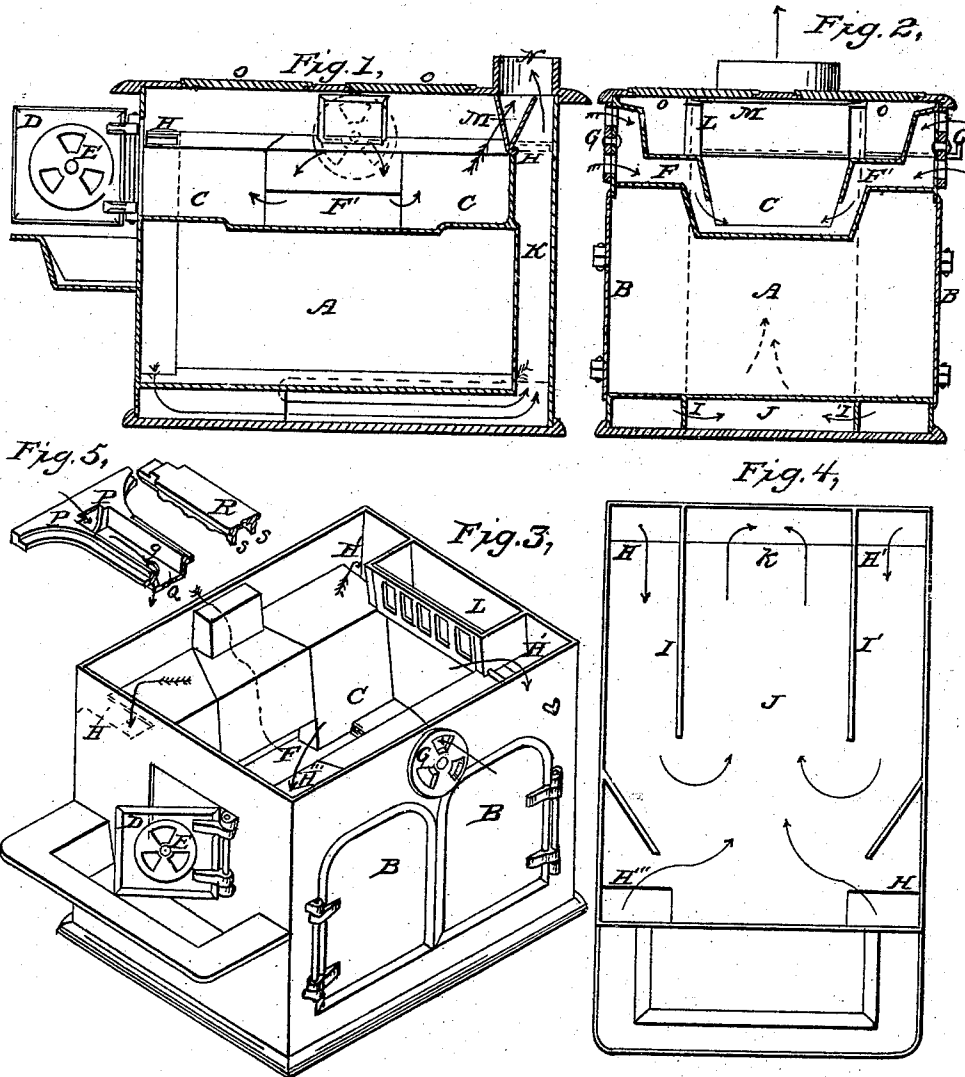


H. H. HUNTLEY.
Cooking Stove.

No. 31,930.

Patented April 2, 1861.



WITNESSES:

James M. Lusk
J. W. Rinder.

INVENTOR
H. H. Huntley
per *[Signature]* atty.

UNITED STATES PATENT OFFICE.

HOSEA H. HUNTLEY, OF CINCINNATI, OHIO, ASSIGNOR TO CHAMBERLAIN & CO.,
ASSIGNORS TO CHAMBERLAIN & CO. AND WM. CAVEN.

COOKING-STOVE.

Specification of Letters Patent No. 31,930, dated April 2, 1861.

To all whom it may concern:

Be it known that I, HOSEA H. HUNTLEY, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Cooking-Stoves, and do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation thereof, reference being had to the annexed drawings, making part of this specification.

The said invention relates to a peculiar combination and arrangement of fire chamber, air passages, flues &c., having for its object the most effective and uniform availment of the heat to the purposes of cooking.

Figure 1 is a central longitudinal section. Fig. 2 is a central transverse section. Fig. 3 is a perspective view, the top being removed. Fig. 4 is a plan of the bottom flues. Fig. 5 is a perspective view of a portion of the center piece or plate, the parts being detached.

A is an oven of great capacity, its bottom and sides occupying respectively the entire horizontal and vertical areas of the stove between the flues. This oven is accessible by doors B, which are singly or collectively of the full size of the oven.

C is a long narrow firebox placed midway between the two stove sides, and extending longitudinally from the front of the stove to the rear flue of the same. This firebox is suspended centrally and longitudinally in the top of the single oven A above described, so as to leave an oven space which extends beneath and equally on both sides of said firebox.

D is a door to the front end of the firebox and having a register E for admission or exclusion of air.

Cold air passages F, F', enter at the sides of the stove, and after traversing the middle and therefore hottest portions of the oven top and firebox, enter the lower portion of said box at its midlength, so as to compel all the feed air to traverse the mass of fuel before escaping to the flues. The inlets of the air passages F, F', are guarded by registers G, G', which registers are intended to be opened to more or less extent after the fire is started, the register E of the front door D being then closed and also the damper to the exit flue.

H, H', H'', H''', are four "diving flues," one at each corner of the stove. The smoke

which descends the two rear corner flues H', H'', being compelled to pass forward by partitions I, I', in the bottom, meets the smoke which has descended the front corner flues H, H'', and escapes in single volume along the central passage J to the exit flue K.

A grated guard box L projects forward over the rear part of the fire chamber with which it communicates by a grating l in its front side, its rear side being entirely open to the escape flue. A swinging damper M, within this box, enables a direct communication from the fire box to the exit pipe when speedy combustion is desired. The box L, enables the escape flue K and exit nozzle N and damper M to be brought within the general rectangular limits of the stove or nearly so, while it guards the damper from dislodgment or injury by the fuel and permits the use of long firewood in a comparatively short stove. The entire series of boiler holes O, is, by this arrangement, brought immediately and equally over the fire, so as to avail the direct heat of the flames to each and every boiling place, in the most effective and uniform manner possible.

The center plate of the customary stove tops has often to be replaced in consequence of its sagging from the intense heat. This liability I effectually remove by the following mode of construction. The main plate P of the center plate has a deep longitudinal depression Q to receive a bridge piece R whose ends are secured by sockets in plate P and whose middle portion is riveted or bolted to said part P. Ribs S on the under side of part R enter the recess Q, and being notched or serrated at their lower edges permit a free circulation of the currents of cool air which enter the center plate by apertures p, and escape into the fire through apertures q. The ribs S preserve the stiffness of the bridge piece R, which by its disconnection, save by mere contact, with the part P, never becomes red hot, and holds the part P to its original shape. This result is due to the well known fact that a red heat is never communicated from one piece of iron to another piece which merely touches it by a small part of its surface.

The four diving flues act to heat those portions of the stove which are least accessible to the direct action of the fire and most exposed to cooling influences. The central

position of the fire box with respect to both the oven and the boiling spaces, and the cool air passages at the midlength of both oven and fire box, together with the four corner diving flues, act to equalize the heat and to insure a uniform baking and boiling action at every part.

The term "longitudinal," as above applied, means in the principal direction of the draft, fireplaces in cook stoves being usually transverse.

I claim as new and of my invention herein—

1. The described central longitudinal fire-box C, provided with cool air passages F, F', which enter the lower part of said box from opposite sides at or about its midlength in the manner and for the objects stated.

2. A cook stove with the following elements; an oven A, extending from side to side of the stove, a long narrow longitudinal firebox C, suspended centrally in the top of said oven, cool air passages F, F', which enter at or near the midwidth of the stove sides, pass over the oven at its middle portion and enter the lower portion of the fire box at or about its midlength, and the four corner diving flues; the whole being arranged as and for the purposes set forth.

In testimony of which invention, I hereunto set my hand.

HOSEA H. HUNTLEY.

Witnesses:

GEO. H. KNIGHT,
FRANCIS MILLWARD.