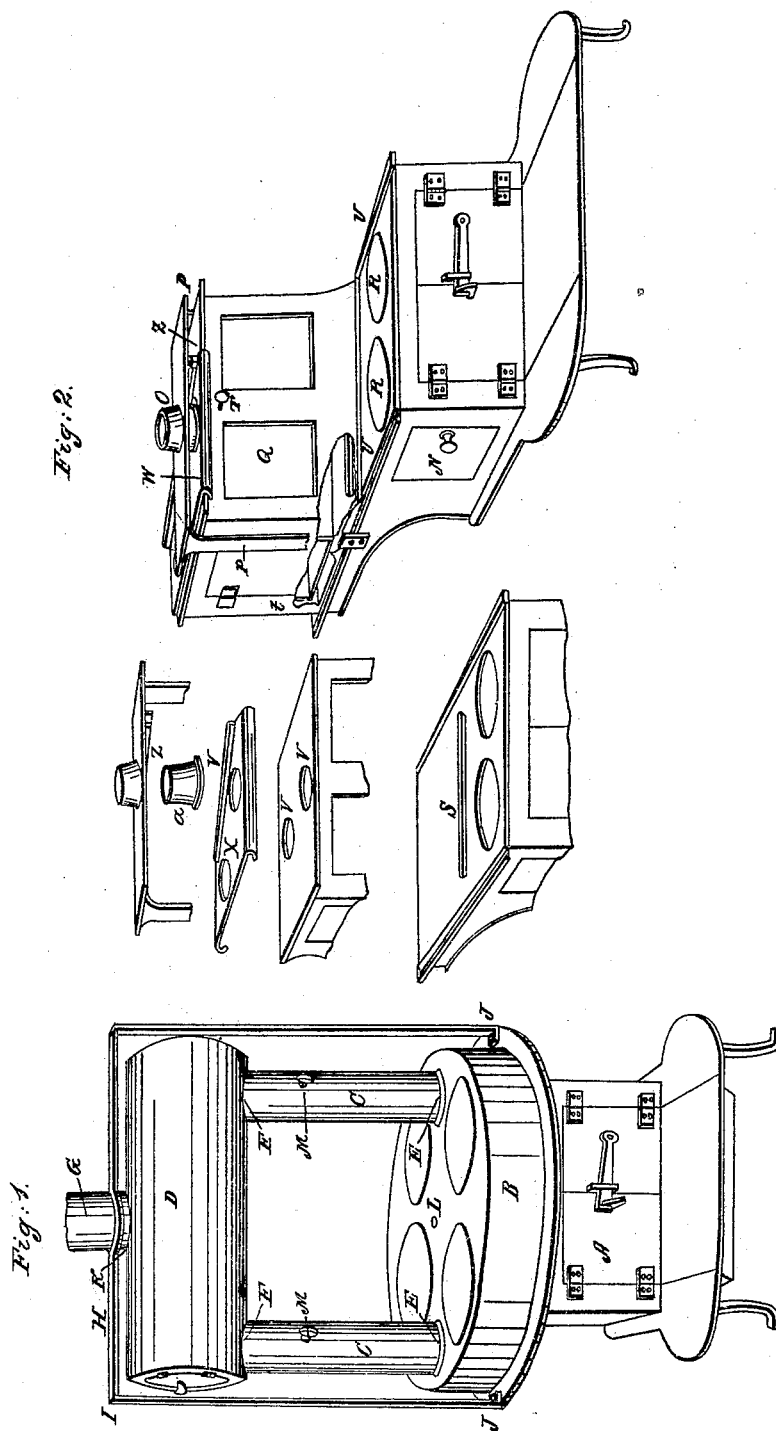


E. C. ROBINSON.

Cooking Stove.

No. 2,404.

Patented Dec. 30, 1841.



# UNITED STATES PATENT OFFICE.

ELI C. ROBINSON, OF TROY, NEW YORK.

## METHOD OF COMBINING ELEVATED OVENS WITH COOKING-STOVES SO AS TO RENDER THE SAME MOVABLE.

Specification of Letters Patent No. 2,404, dated December 30, 1841.

*To all whom it may concern:*

Be it known that I, ELI C. ROBINSON, of the city of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Stoves; and I do hereby declare that the following is a full and exact description.

The principle of my improvement consists in providing a movable oven to a stationary stove, so constructed as to allow the fire and heated air to pass through the flues of the oven in whatever position, within the limits prescribed for its movement, it is placed, and then through a stationary stove pipe to the chimney.

An oven, stove and pipe of this description, with their appendages, are represented in Figure I, of the annexed drawings, in which A is the stationary part of the stove, B a circular movable top to the same.

C, C are pipes supporting the oven D and serving as flues or passages for conducting the fire and heated air into its flues, for which purpose the pipes are placed over openings provided for them in the top plate of the stove, each being supplied with a common collar for the purpose at E, E. The top of the same pipes are connected with the oven at F, F, when like openings and collars are provided for them in its outside plate. The entire circle of the oven is formed with double plates, and the space between them constitutes its flues or passage for the circulation of the fire, &c., around the inner or baking apartment.

G is a stationary collar over which a common stove pipe is placed for conducting the smoke to the chimney.

H is a horizontal plate of sufficient width and thickness to support the collar which is attached to it and both plate and collar with the stove pipe are supported by the upright standards connected with the plate at I, I, and with a rim of the permanent part of the stove at J, J. Or instead of two standards I sometimes make use of one only, in which case the horizontal plate H is extended as an arm from the top of the standard to the collar G and is made to terminate on the opposite side of it, the collar being attached thereto at or near its extremity and over the center of the oven, the same as when two standards are used. I attach the foot of each standard in either case to the rim in the manner represented in the drawing or by

a dovetailed joint or any other common mode of fastening at my option. A collar is also attached to the center of the top of the oven as partially seen at K and extends up within the collar G so as to form the connecting passage from the flue of the oven to the stove pipe. These two collars are apportioned in size so as to allow the inner one, or that connected with the oven to turn easily within the other which serves to preserve its own central position. With these provisions and a central pin from the stove through a small opening in the rotary top as shown at L, the oven with the rotary top is made movable horizontally as upon its center, by means of which I am enabled to place one end or the other of the oven directly over the fire place or furnace of the stove or at any relative distance therefrom within the circle of its movement, and also, by aid of a common damper with which each of the supporting pipes is provided, as shown by their handles at M, M the passage through either may be opened and the other closed, by means of which the heating process of the oven is equalized or varied at discretion.

Another modification of the principles of my improvement is represented in Fig. II. In this the stove N and collar O for a common stove pipe, are in like manner stationary, and the latter like the other is supported by a horizontal plate to which it is attached at O, the same being of a width and thickness sufficient for the purpose and both likewise sustained in their position by the upright standards P, P, (or by one instead of two at my option) which at the top are connected with the plate and at the bottom with the permanent part of the stove as represented in the drawing being united therewith by any common mode of fastening, while the oven Q, having its end plates extended down so as to rest in the grooves in the top plate of the stove shown at U, U is made movable back and forth from front to rear by being shoved one way or the other by hand or otherwise, the grooves and plates serving to guide it in its direction when thus moved. In the drawing it is represented at its rear station leaving the boiler seats R, R free for ordinary use, the flue of the stove, as shown in the drawing, being sufficiently extended for that purpose.

The baking apartment of the oven, sus-

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5 depended in the usual manner by flanges or  
 other projections from the inner surface of  
 the end plates of the oven, is, except the  
 end, surrounded by a flue or open passage  
 10 for the circulation of the fire and heated  
 air from the stove which is introduced  
 through an opening in its top plate as shown  
 in a sectional view of the plate at S and  
 partially seen at S, Fig. II. This opening  
 15 is so located as to come under the front as-  
 cending flue of the oven when at its rear  
 station as there represented, and under its  
 back flue *t*, when brought forward over the  
 fire place. When in this front station the  
 20 boiler openings, being then under the oven,  
 are left covered or uncovered by their lids  
 as the state of the fire or temperature of the  
 oven may require.

By means of a common sliding damper  
 25 upon the top of the inside or baking apart-  
 ment of the oven, either the front or back  
 flue may be closed and the fire, &c., made to  
 pass exclusively through the other. The  
 handle for moving the damper is seen at T.  
 In order to effect a smoke passage from the  
 30 flues of the oven, when either at its front  
 or rear station, to the stationary stove pipe,  
 I provide two openings in the top plate of  
 the oven, as shown in the separate view  
 thereof at V, V—making the distance be-  
 35 tween them equal to the extent of its back  
 and forward movement, so that at the ter-  
 mination of each movement one of these  
 openings will be left exactly in the place  
 which the other previously occupied, or  
 40 which is the same thing directly under the  
 stationary collar for the stove pipe—and in  
 order to make good the communication be-  
 tween the opening thus brought under the  
 45 collar and the stove pipe, and at the same  
 time close the other opening, a sliding plate  
 is provided with two openings of corre-  
 sponding dimensions as represented at W,  
 and in a separate view of the plate at X,  
 50 and placed upon the top of the oven, so as  
 to be movable thereupon in the direction of  
 its length either way. From the upper sur-  
 face of this plate a flange is raised, extend-  
 ing in an oblique direction nearly across it  
 as shown at Y, and a corresponding groove  
 or double flange from the under side of the  
 55 plate to which the stationary collar is at-  
 tached, as seen at *z*, *z*, so as to interlap with  
 the flange of the sliding plate; by means of  
 which, as the oven is moved from one sta-  
 tion to the other, the sliding plate is borne  
 in this lengthwise direction of the oven one

way or the other as by an inclined plane  
 according to the start given to these flanges,  
 and I fix the angle of their inclination and  
 60 the relative position of the two openings  
 in the plate so that one of them will be  
 brought exactly over each of the openings  
 in the top plate of the oven as it arrives  
 under the collar for the stove pipe, while  
 65 the same lateral movement of the slide car-  
 ries its other opening on one side of that  
 on the same side of the top of the oven and  
 closes it with the plate of the slide. In this  
 way, without further attention, the sliding  
 70 plate serves as a damper to each passage.  
 By means of a loose collar, as shown at *a*,  
 placed upon the sliding plate as at *b*, so as  
 to extend up within the stationary collar *c*,  
 by which it is kept in its place, either of the  
 75 openings are covered by the loose collar  
 when brought under it by the movement of  
 the plate in the manner already described,  
 and thus the passage from the flues of the  
 oven to the stove pipe is perfected. The  
 80 lateral movement of the slide is preserved  
 by means of a lip or flange at its back and  
 forward edges, made to overlap the edges  
 of the top plate of the oven as shown in  
 the drawings.

What I claim and desire to secure by Let-  
 ters Patent is—

1. The mode of adapting an elevated oven  
 to a rotary top of a stove or combining the  
 same therewith so as to allow of the oven  
 90 revolving with the said top by means of the  
 stationary collar G combined with the oven  
 and with the stationary part of the stove  
 substantially in the manner above set forth.

2. And I also claim the method of com-  
 95 bining the discharge openings V, V of the  
 movable oven represented in Fig. II of the  
 annexed drawings with the stationary col-  
 lar or smoke pipe O by means of the slid-  
 ing plate W in the same figure having an  
 100 oblique flange adapted to a groove in the  
 underside of the plate supporting the sta-  
 tionary collar and provided with apertures  
 corresponding to the openings V, V, in the  
 oven top by means of which arrangement  
 105 the connection of the movable oven with the  
 smoke pipe is maintained, all as above set  
 forth.

Subscribed this 9th day of December 1841  
 before us.

ELI C. ROBINSON.

Witnesses:

HORATIO A. WILSON,  
 DANIEL WHITING.