

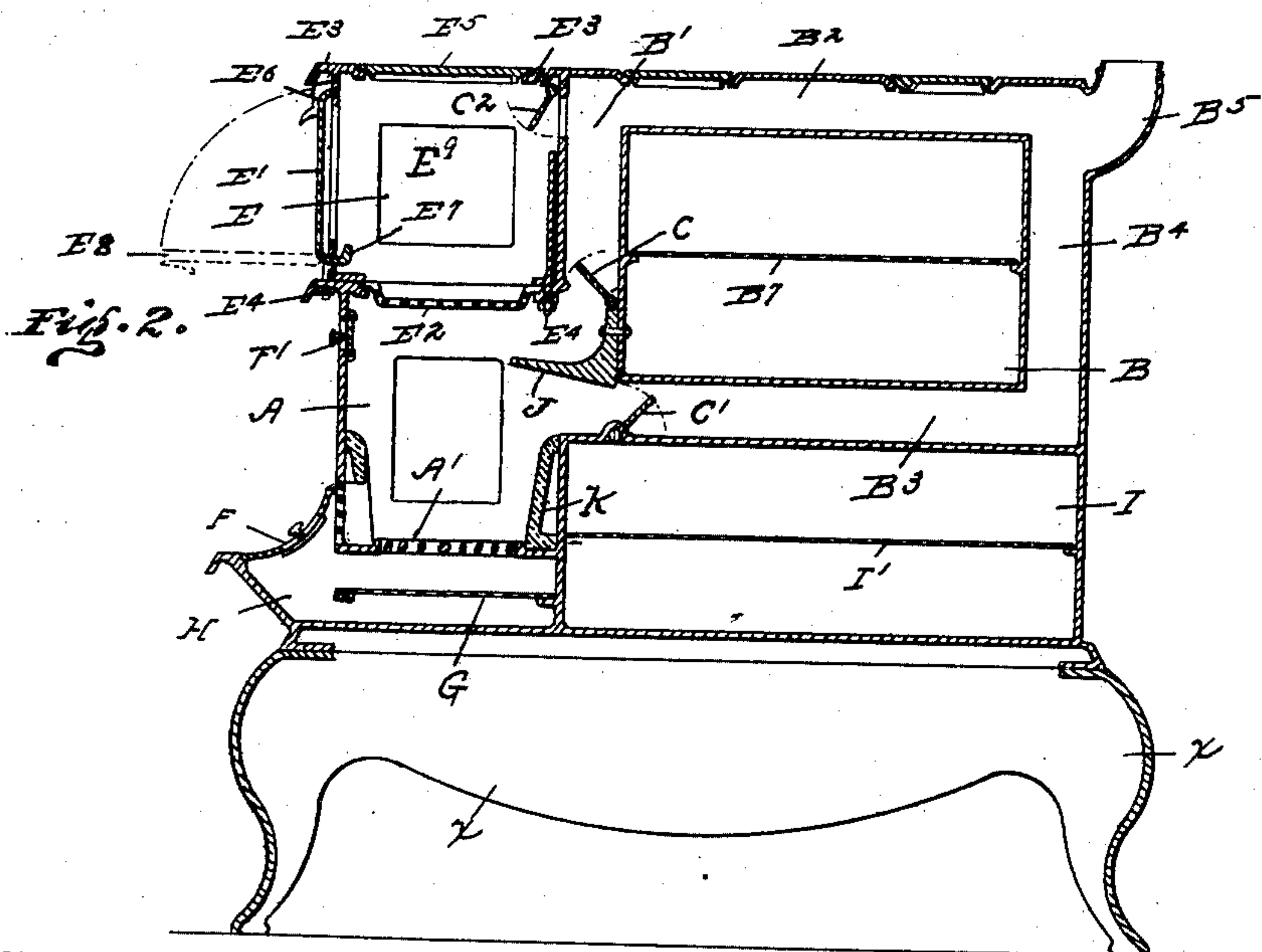
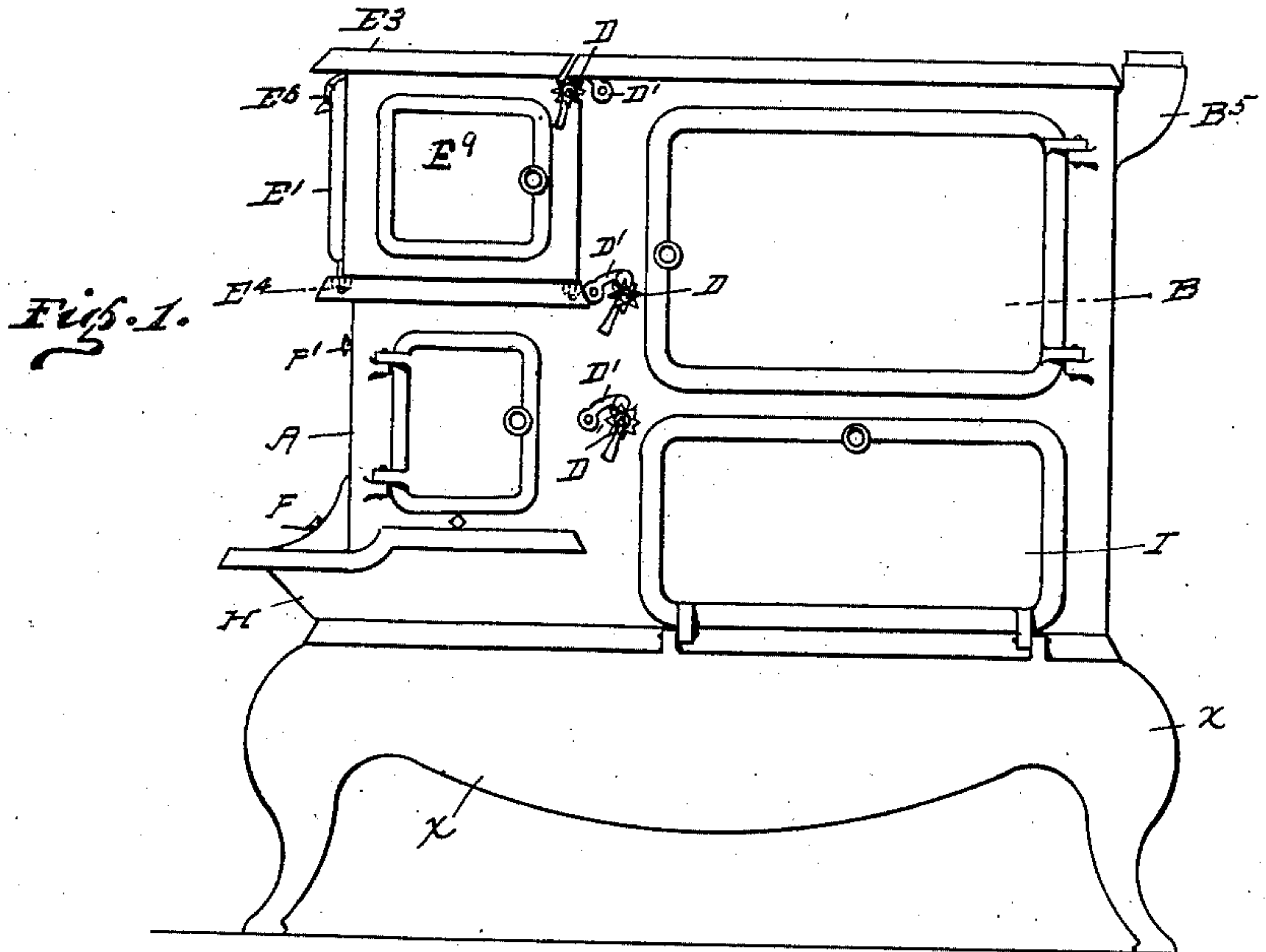
No. 737,546.

PATENTED AUG. 25, 1903.

J. N. YOUNG.  
STOVE OR RANGE.

APPLICATION FILED NOV. 13, 1902.

NO MODEL.



WITNESSES:

*Baldwin Vail*  
*Marion S. Blanchard*

INVENTOR.

*John N. Young*



# UNITED STATES PATENT OFFICE.

JOHN N. YOUNG, OF ALAMEDA, CALIFORNIA.

## STOVE OR RANGE.

SPECIFICATION forming part of Letters Patent No. 737,546, dated August 25, 1903.

Application filed November 13, 1902. Serial No. 131,243. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN N. YOUNG, a citizen of the United States, residing at No. 2128 Alameda avenue, Alameda, county of Alameda, State of California, (whose post-office and business address is No. 723 Market street, room 21, "Bancroft-History" Building, San Francisco, California,) have invented a new and useful Improvement in Stoves or Ranges, of which the following is a specification, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to an improvement in cooking or kitchen stoves and ranges.

The principal features of my invention are a cooking stove or range having a low fire-box, an elevated oven, an extra chamber which may be used as a cooking-inclosure, a ventilating-chamber, or as an additional fire-chamber; also, flues leading directly from the low fire-box both over and under the raised oven to the pipe or chimney flue; dampers operated with pawl and ratchet, regulating the draft through the flues; a partition-plate dividing the flame and heat as they leave the lower fire-box to enter the flues, the top of the lower fire-box surrounding and including the lids and divide or center piece and extending near to the outer edges being removable; an adjustable grate and an adjustable broiler for use at the top of the lower fire-box, the top of the ventilating-chamber, including lids and divide or center piece, being likewise removable, and all of the parts of this chamber being detachable and when desirable may be dispensed with. I attain these objects by the mechanism illustrated in the accompanying drawings, forming a part hereof, in which—

Figure 1 is a side elevation of a stove or range constructed in accordance with my invention. Fig. 2 is a vertical cross-section of the same.

Similar letters refer to similar parts throughout both views.

The various parts of Fig. 1 will be understood by a reference to Fig. 2.

In Fig. 2, A is a fire-box. A' is a grate in the bottom of fire-box A. B is the oven. B' is an uprise flue leading from the fire-box A and passing in front of the oven B. B<sup>2</sup> is a horizontal continuation of the flue B' over the oven B and extending to the pipe or chimney

outlet B<sup>5</sup>. B<sup>3</sup> is a horizontal flue under the oven B, leading from the fire-box A. B<sup>4</sup> is a vertical continuation of B<sup>3</sup>, leading in the rear of the oven to the pipe or chimney outlet B<sup>5</sup>. B<sup>5</sup> is the stove or range pipe or chimney flue or outlet. B<sup>7</sup> is a shelf in the oven B. C is a damper in the flue B'. C' is a damper in the flue B<sup>3</sup>. C<sup>2</sup> is a damper in the chamber E. D D D are the ratchets attached to the dampers C, C and C<sup>2</sup>, and D' D' D' are the pawls connecting with each of the said ratchets. The use of the ratchet and pawl, however, is not exclusive; but any convenient device may be employed for manipulating said dampers, or a handle alone may in most cases be sufficient. E is an extra chamber, which may be used either as an auxiliary oven, a cooking-inclosure, a ventilating-chamber, or as an additional fire-chamber. E' is a front door to the same. This door has the usual adjustable dampers, one near the top, the other near the bottom. E<sup>2</sup> is an adjustable grate bar or broiler between the chamber E and the fire-box A when the top of fire-box A has been removed. E<sup>3</sup> is the detachable frame of the chamber E. E<sup>4</sup> are bolts securely fastening the frame E<sup>3</sup> to the top of the fire-box A and in front of the remaining portion of the stove, flush with the top thereof. E<sup>5</sup> is the removable top of the chamber E. E<sup>6</sup> is the latch to E'. E<sup>7</sup> is a detent-lug on E'. E<sup>8</sup> shows horizontal position of E' dropped down from the top and serving the purpose of a shelf. E<sup>9</sup> is an end door to the chamber E; F, draft-inlet (adjustable) for fire-box A; F', draft-inlet (adjustable) for E<sup>2</sup> and fire-box A; G, cinder-grate bars in ash-pit H; H, ash-pit; I, warming-oven. I' is a shelf in I. J is a partition-plate dividing the heat and flame as they leave the fire-box A and enter flues B' and B<sup>3</sup> or either thereof. This partition-plate J is extended upward along the lower front part of the oven B and protects it from the concentrated heat at that point. The usual lining K is shown in the fire-box A. X is the stove or range support.

By this my improvement the fire-box A being placed low in the stove or range gives an opportunity to conduct the heat and flames directly from the fire-box A to all sides of the oven B through the flues B' B<sup>2</sup> B<sup>3</sup> B<sup>4</sup>, and by means of the dampers C and C' the heat and



flames may be divided equally or be sent in unequal portions into and along these flues, or they may be sent entirely through B' or B<sup>3</sup> or may be withdrawn from both and sent  
 5 along the top of the stove through the chamber E and through the open damper C<sup>2</sup>, the operator being thus enabled to affect the temperature of the oven at will. I also effect the further desirable object of having the heat  
 10 and flames travel in direct horizontal and up-rising lines in all of their uses.

The partition-plate J, among other things, divides the heat and flames in the fire-box A and prevents the drafts through the flues B' and B<sup>3</sup> from affecting or neutralizing each  
 15 other.

The dampers C C' C<sup>2</sup> are operated conveniently by the pawl and ratchets D and D'. These may be dispensed with and a simple  
 20 handle or any other suitable device may be used to operate these dampers.

The chamber E may be used to inclose cooking utensils employed for cooking or other purposes on the top of that part of the stove  
 25 or range forming the top part of the fire-box A, which top part has the lids and divide usually found at this place in stoves and ranges. As hereinbefore stated, the greater portion of all of this top part over the fire-box A may be  
 30 removed, carrying with it the said lids and divide, thus opening nearly all such top for the passage of the heat and flames through the chamber E and the damper C<sup>2</sup> when desired. When this top has been removed or  
 35 the lids and divide or center piece have been removed, a grate E<sup>2</sup> may be set in and a fire may be maintained thereon and within the chamber E when desirable, or instead of a grate a broiling-iron may be placed in the  
 40 opening, as shown at E<sup>2</sup>, when by means of the flues B' and B<sup>3</sup> or either of them and the dampers C and C' the smoke and flames may be diverted from the broiler E<sup>2</sup>, and any food thereon exposed to the direct rays of the heat  
 45 from the fire-box A may be cooked or acted upon without being smoked or burned by the flames. This is especially desirable when oil is used as a fuel. When food or other substances in the chamber E are being cooked or  
 50 acted upon by the fire from the fire-box A, any smoke, steam, or effluvium arising therefrom passes out through the open damper C<sup>2</sup> into the flues B' B<sup>2</sup> and thence out of the pipe or range. The front door E' and the end doors  
 55 E<sup>9</sup> being open and the top E<sup>5</sup> being removed leaves only the narrow frame E<sup>3</sup> of the cham-

ber E standing, and this when desired may be removed by loosening the nuts E<sup>4</sup>. Slight alterations in construction may be made without departing from the spirit of my invention. 60

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

1. A stove or range provided with a low fire-box, an elevated oven with one lower corner adjacent to the middle of the fire-box outlet and there provided with a partition dividing the said fire-box outlet, a vertical flue in front of the oven, a similar flue in rear thereof, upper and lower horizontal flues  
 65 along the oven, and dampers above and below the said partition. 70

2. A stove or range having a low fire-box, an elevated oven, suitable flues and dampers, one flue being in front of the oven above the fire-box, and a supplemental chamber resting on top of the fire-box and communicating at its upper rear portion with the upper end of the said front oven-flue, a damper controlling said communication, and a grid-like device  
 75 between the chamber and the fire-box. 80

3. A stove or range having a low fire-box, an elevated oven, suitable flues and dampers, one flue being in front of the oven and above the fire-box and having a dampered opening  
 85 through its front wall, a supplemental removable chamber resting on the open top of the fire-box and comprising a skeleton frame open at the bottom, and at the said upper damper and having a downwardly-swinging  
 90 front door provided at its lower hinged edge with detents or stops to hold it securely when swung down to form a shelf.

4. A stove or range provided with a low fire-box, having removable top pieces, an elevated oven, a vertical flue in front of the oven, communicating at its lower end with the fire-box and having a dampered opening in the upper end of the front wall, upper and lower horizontal flues and a rear vertical flue  
 95 for the oven, dampers in the lower end of the front vertical flue and in the front end of the lower horizontal flue, a warming-chamber under the said lower flue and a supplemental chamber on top of the fire-box and  
 100 opening into the oven-flue through said upper damper. 105

JOHN N. YOUNG.

Witnesses:

MARION S. BLANCHARD,  
 WM. H. YOUNG.