

C. H. MILLER.

KITCHEN RANGE.

APPLICATION FILED JAN. 7, 1909.

960,183.

Patented May 31, 1910.

Fig 1

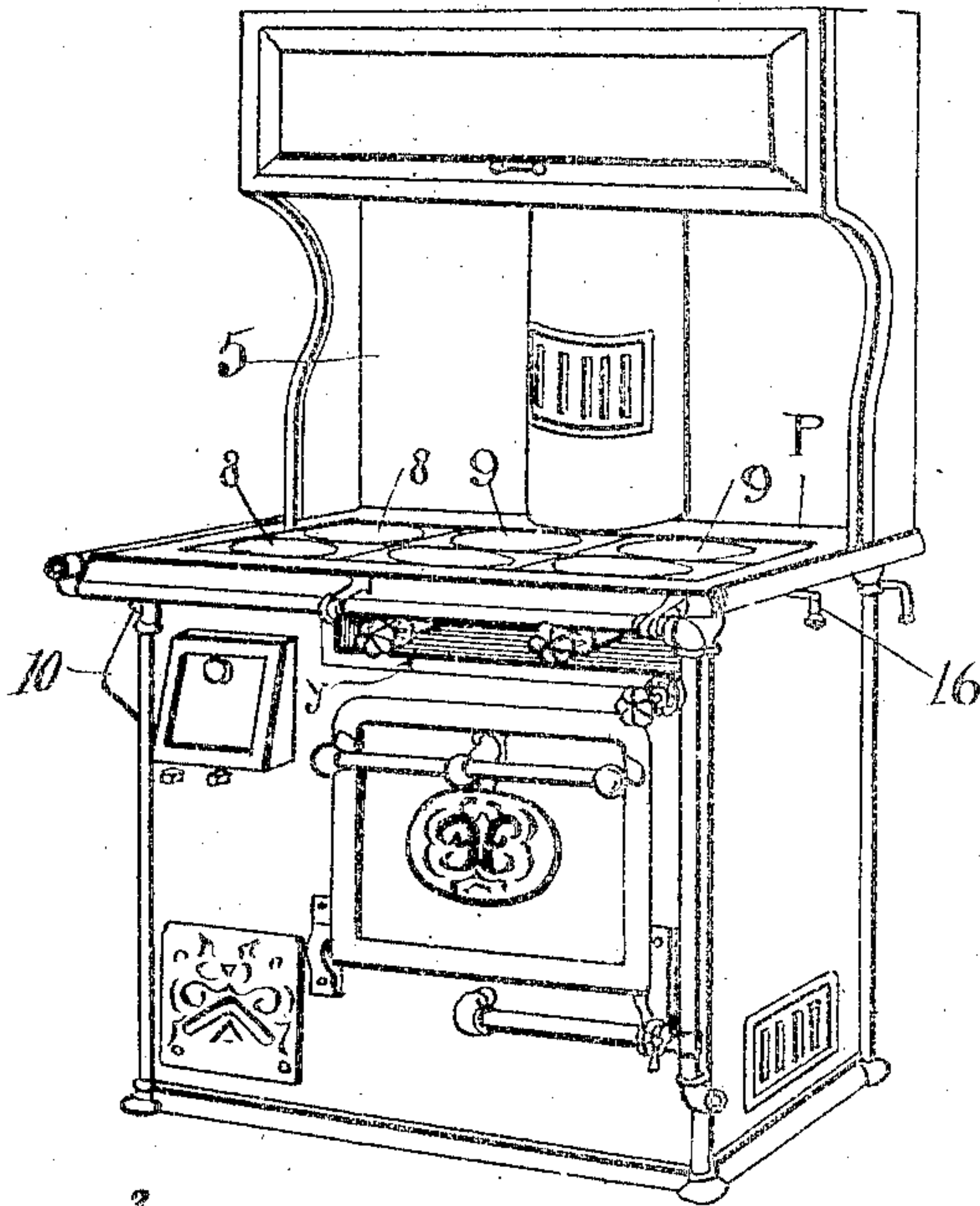


Fig. 2.

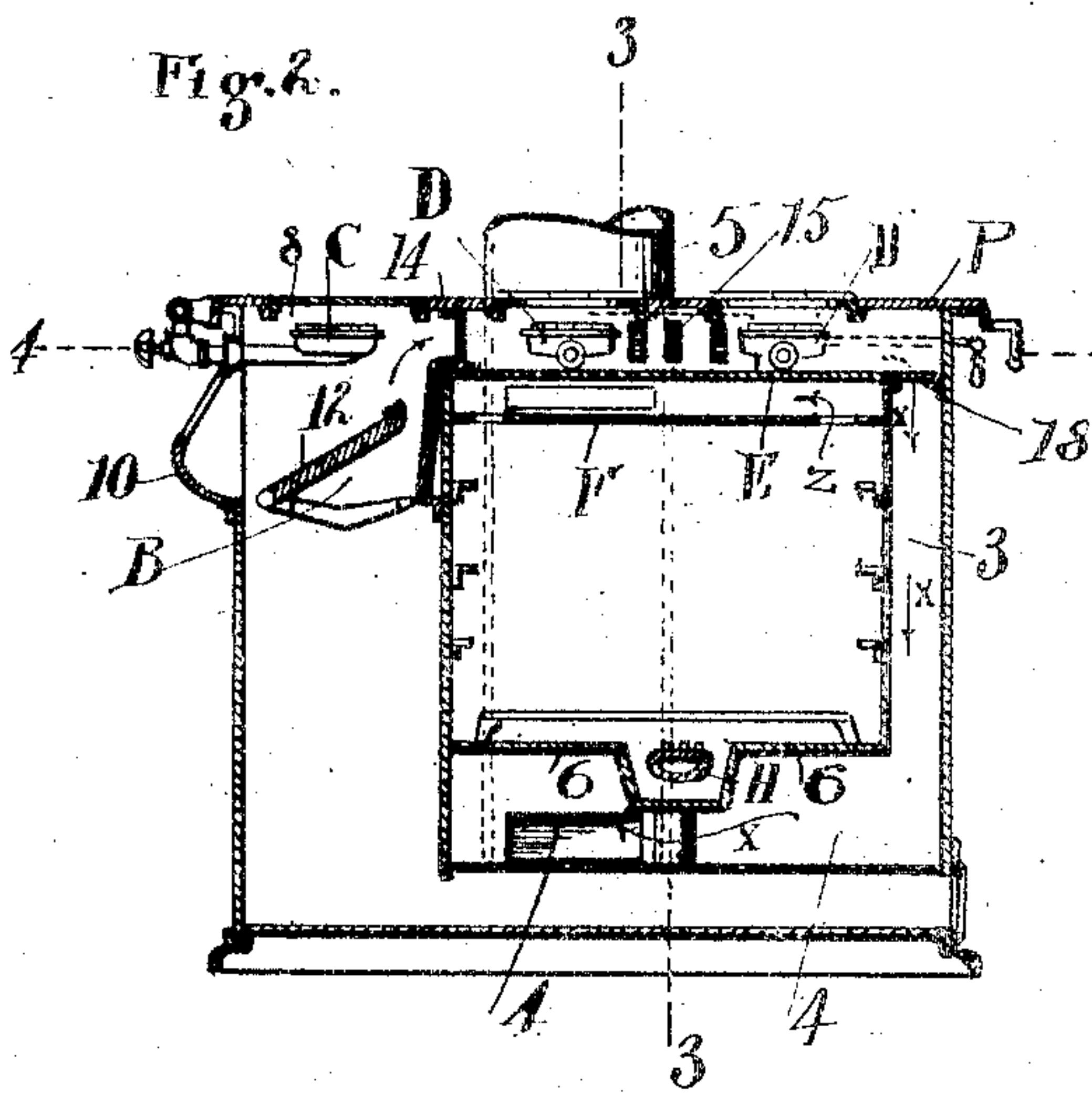


Fig. 3.

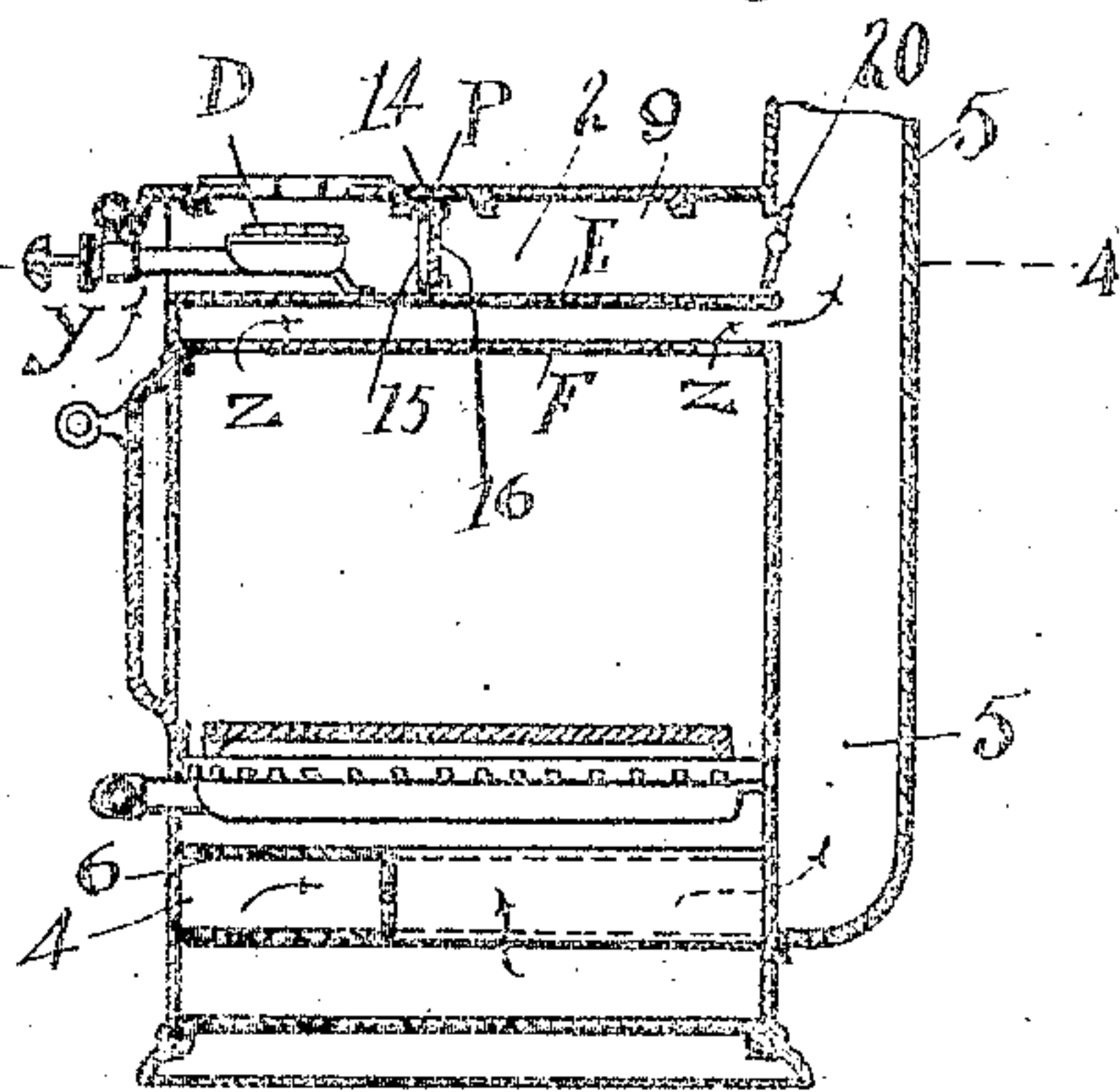
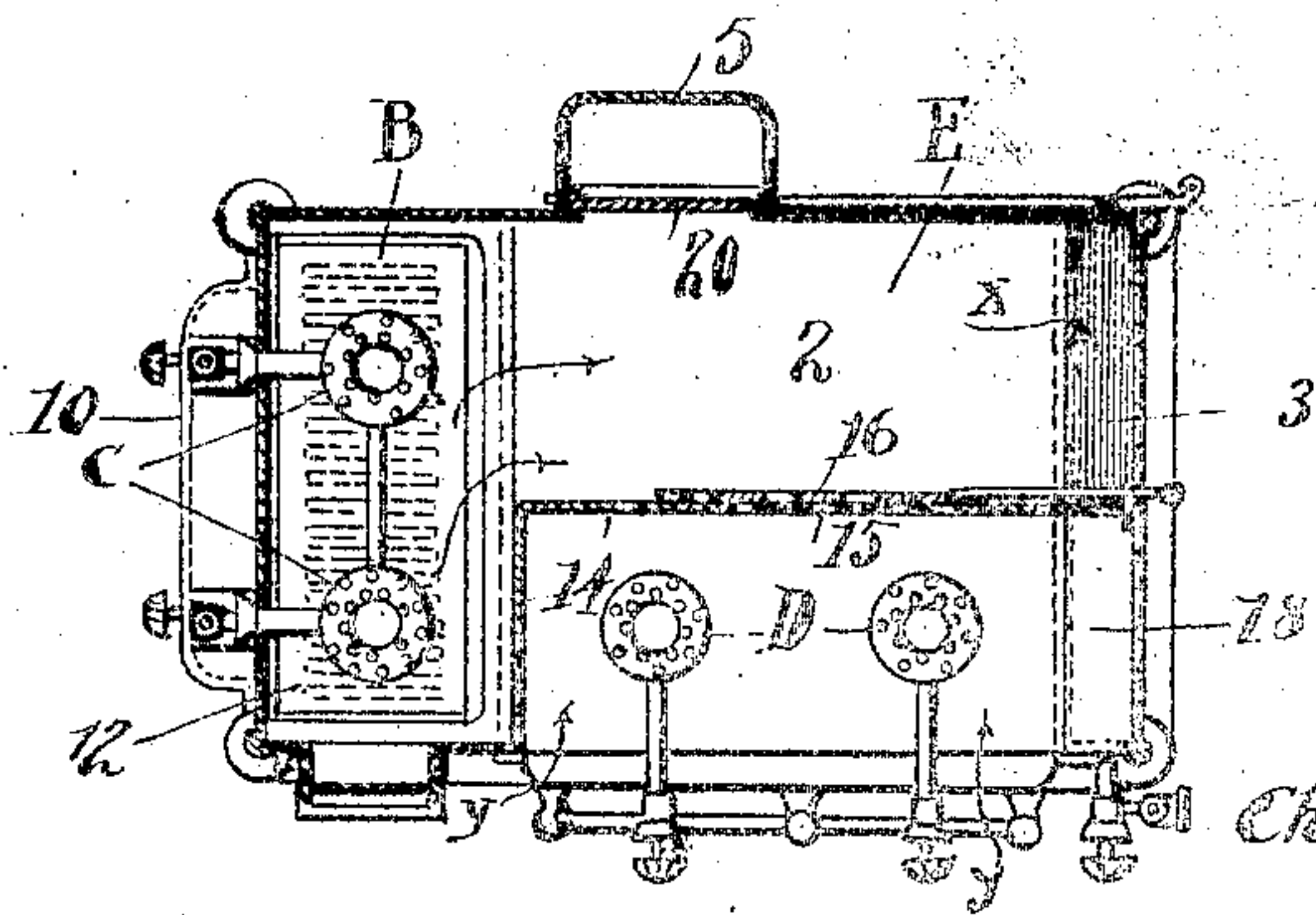


Fig. 4.



ATTEST  
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# UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF CLEVELAND, OHIO.

## KITCHEN-RANGE.

960,133.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed January 7, 1909. Serial No. 471,050.

*To all whom it may concern:*

Be it known that I, CHARLES H. MILLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Kitchen-Ranges, of which the following is a specification.

My invention relates to improvements in kitchen ranges, and the invention consists in a combined gas and solid fuel range, all substantially as shown and described and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective elevation of a range embodying my invention, and Figs. 2 and 3 are sectional elevations thereof on different lines at right angles to each other, Fig. 2 being a front sectional elevation, and Fig. 3 a transverse sectional elevation on line 3—3, Fig. 2. Fig. 4 is a sectional plan view on line 4—4, Fig. 2.

The invention as thus disclosed provides for a fire box B in which coal, wood or other solid fuel may be burned and from which there is a draft flue 2 over the rear half of the range and thence down by flue 3 at the rear as indicated by arrows marked with *a* in the several views, and from which it will be seen that the exhaust 4 at the bottom is beneath the oven where the discharge is to the chimney flue 5. In this connection it may be explained that the products of combustion from the fire pot spread across the entire rear of the range after entering the throat of the down flue 3 and whence the said products distribute themselves generally beneath the oven or at the bottom oven plate 6, as plainly shown. It will be seen also that the range is a six hole construction, and that the first two holes, 8, immediately over the fire pot, and the two rear holes 9 are exposed to the products from the fire pot, but if gas be preferred for these holes, the two gas burners C are adapted to be swung into using position under holes 8 as seen in Fig. 2, or to lie out of the way in hood 10 when solid fuel is used, a guard plate 12 in that case being swung to the front to cover the said burners C and form one side of the fire box. Broadly, this idea is covered in a former patent and is not claimed herein, but in order that the nature of the range may be understood it is deemed necessary to men-

tion this construction. Now, as a further conception on the gas side of the range, I have formed an exclusively gas sub-division comprising the two burners D in front of flue 2 and which occupy a compartment of their own between the top plate P of the range and plate E beneath. To this end I provide a closed wall 14 which divides the top of the range between said plates into two equal parts lengthwise, the said gas burners D occupying the front part and flue 2 the rear part. The said gas burners D are fixed in their positions and are supplied with gas and controlled with valves as gas burners usually are and are entirely cut off from the solid fuel portion of the stove by means of wall 14, which also shuts off the fuel box. Said wall has one or more draft openings 15 controlled by a damper 16 through which draft is provided to flue space 2 and thence to the chimney flue 5 when the said burners D are used. It will also be noticed that the top of the gas burner compartment about burners D is provided with openings corresponding to said burners D, and which may be closed by lids as seen in Fig. 1, and of course the products of combustion from the fire pot cannot enter this space when the damper 16 is closed. A plate 18 closes off the said compartment from the down flue at the rear of the range.

Incident to the exclusive gas use of the range I provide a gas burner H in the bottom of the oven adapted to be used for heating the oven and from which the products of combustion pass out at the top of the oven by way of the arrows indicated by *z*, the passage for said products being between the intermediate plate E of the top of the range and plate F next beneath the same and constituting the top plate of the oven.

The usual direct damper 20 is used in the chimney flue.

It will be seen by the foregoing that at least four of the six holes can always be used whether hard or gaseous fuel be burned, and by closing direct damper 20 when the gas burners C are used the rear holes 9 get sufficient heat to do some kinds of cooking.

What I claim is:

A kitchen range adapted to use both solid and gaseous fuel having a fire-pot for hard fuel and a draft flue therefrom over the rear half and top of the range lengthwise



thereof to the oven beneath, a pair of gas  
burners in the front half of the top of the  
range and a fixed wall between said fire-  
pot and flue and the portion of the top oc-  
cupied by said burners, the space occupied  
by said burners being closed about its sides  
by said fixed wall and permanently open  
over the top to the outside air, whereby

draft to the oven heating flues is perma-  
nently closed off from said burners. 10

In testimony whereof I affix my signature  
in presence of two witnesses.

CHARLES H. MILLER.

Witnesses:

E. M. FISHER,

F. C. MUSSUN.