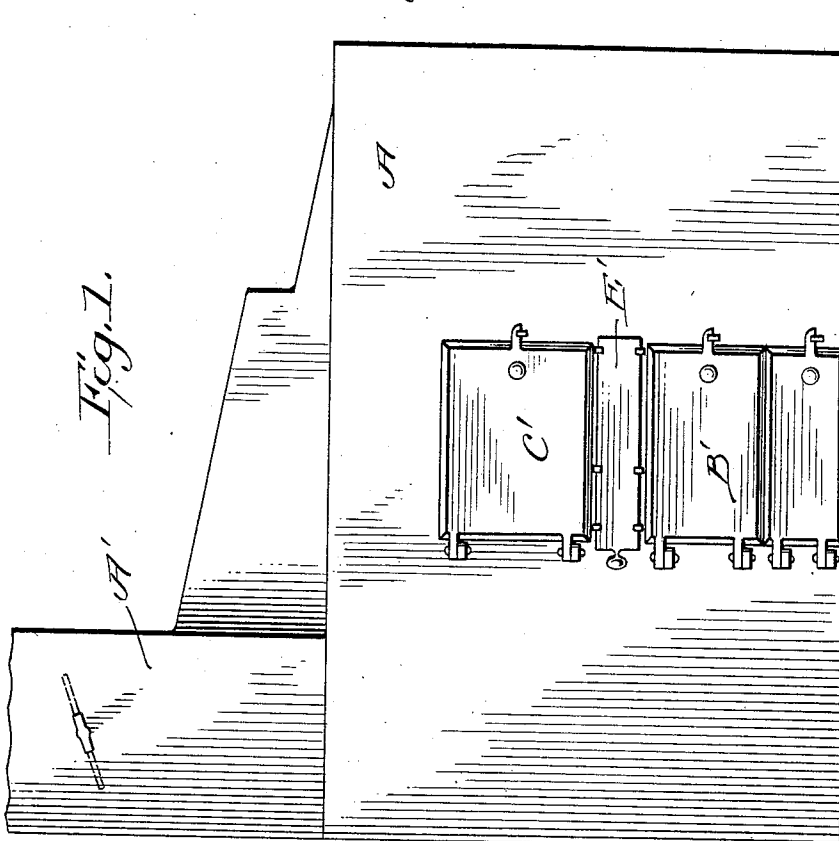
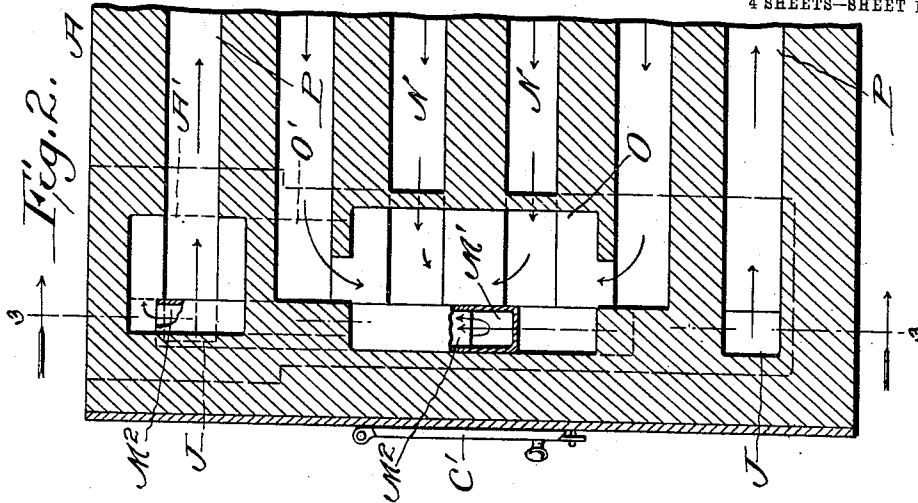


1,017,264.

F. KOCH.
BAKER'S OVEN.
APPLICATION FILED APR. 18, 1911.

Patented Feb. 13, 1912.

4 SHEETS—SHEET 1.



Inventor

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4 SHEETS—SHEET 2.

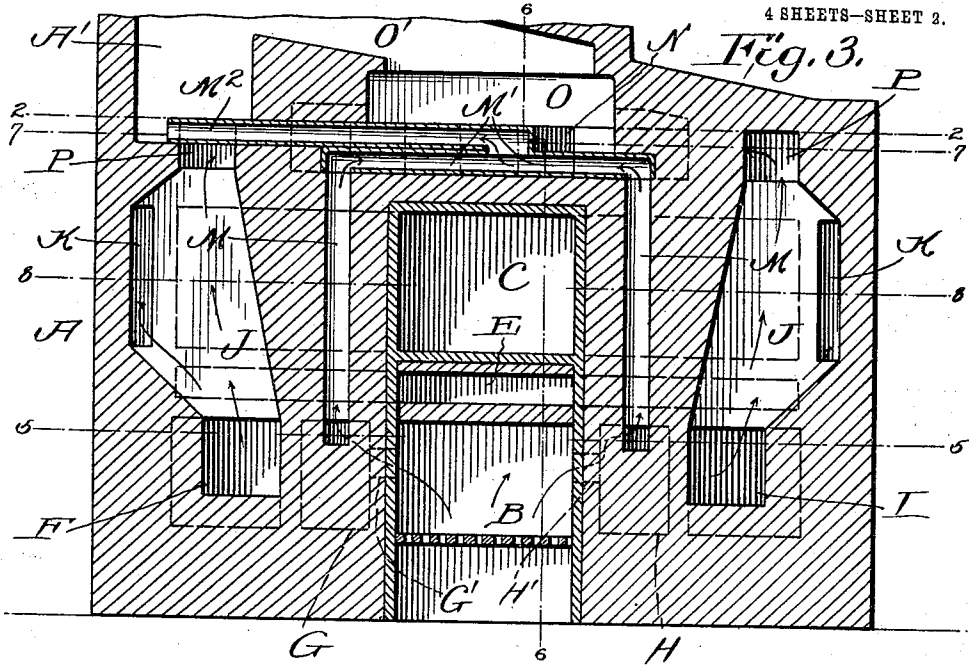
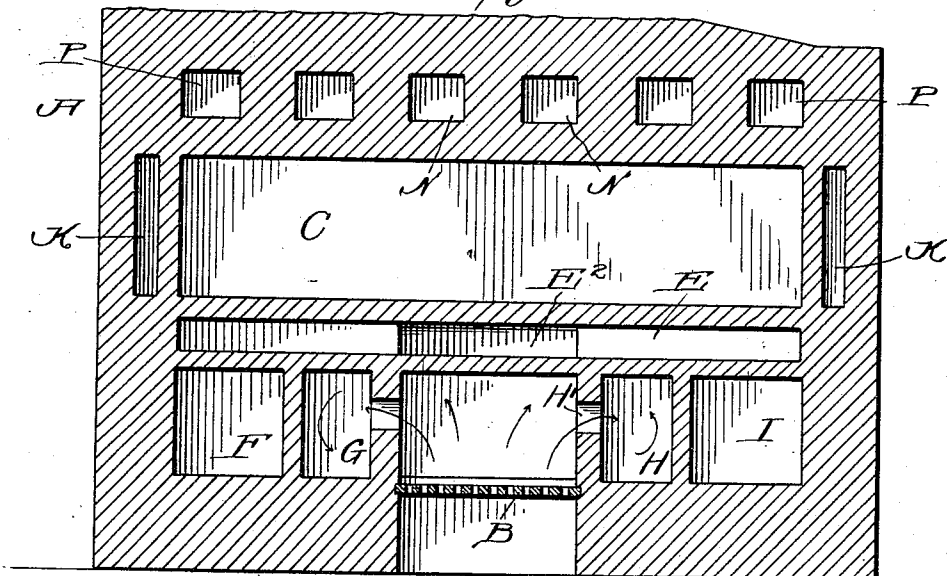


Fig. 4



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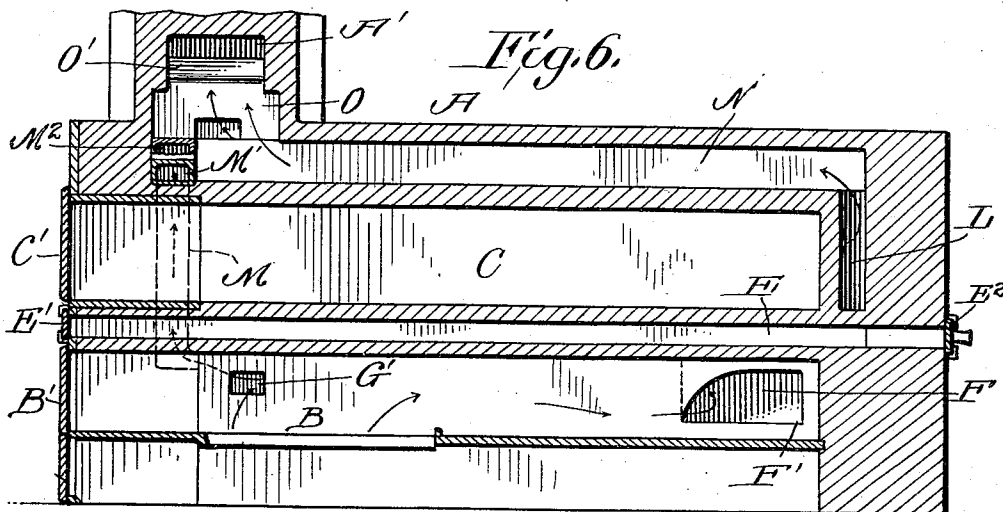
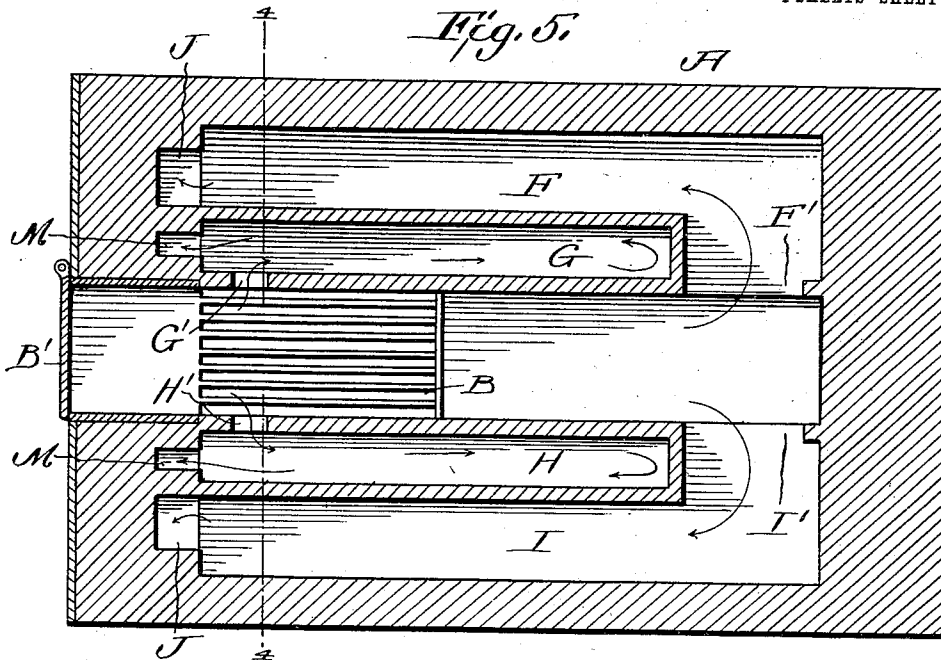
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4 SHEETS—SHEET 3.



Witnesses

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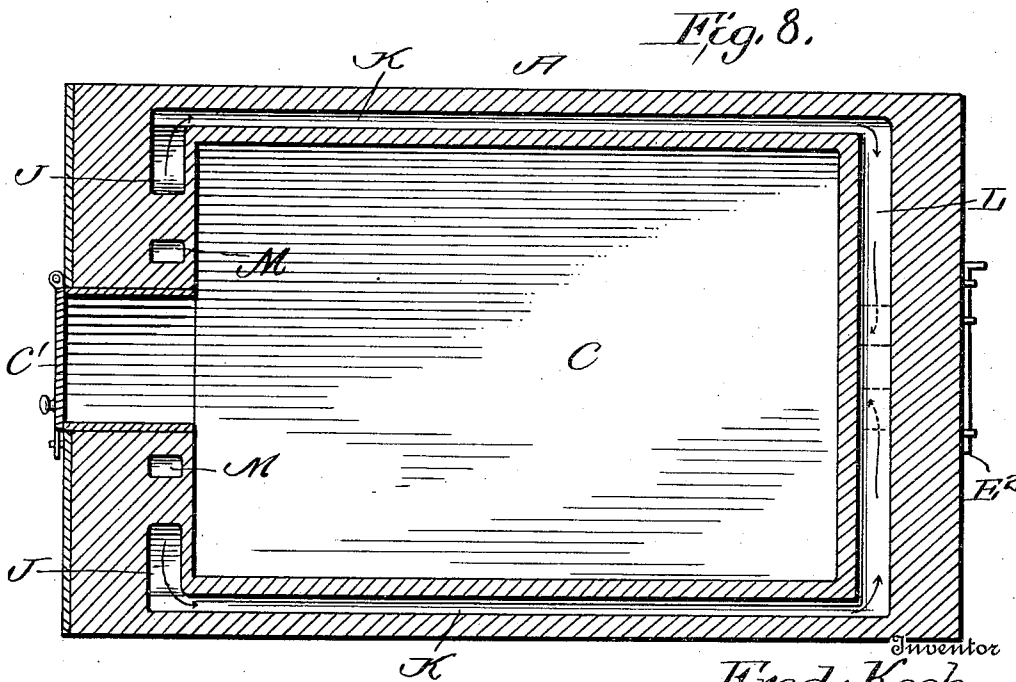
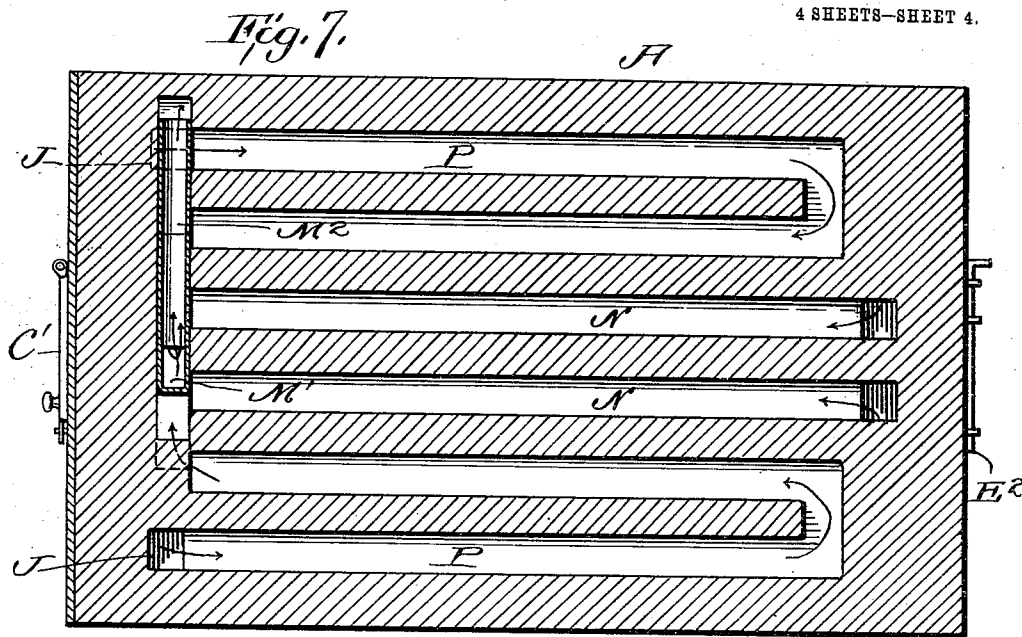
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4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

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BAKER'S OVEN.

1,017,264.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed April 18, 1911. Serial No. 621,803.

To all whom it may concern:

Be it known that I, FRIEDRICH KOCH, a citizen of the United States, residing at Parsons, in the county of Labette and State of Kansas, have invented a new and useful Improvement in Bakers' Ovens, of which the following is a specification.

This invention relates to certain new and useful improvements in bakers' ovens, the object being to provide an oven which is so constructed that the baking chamber is surrounded by flues, whereby the oven can be heated and maintained at an even temperature with a very small amount of fuel.

Another object of my invention is to provide an oven having a dead air space arranged under the same provided with door closed openings at its ends, whereby cold air can be admitted into the chamber in order to allow the oven to be cooled when desired.

A still further object of my invention is to provide an oven in which the flues are so arranged that the gases from the furnace enter the flues from the front and rear portion of the furnace and pass around the oven chamber several times before escaping through the chimney.

A still further object of my invention is to provide a baker's oven which is exceedingly simple and cheap in construction and one which is very effective in use.

With these objects in view, the invention consists in the novel features of construction, combination and arrangements, of parts hereinafter fully described and pointed out in the claims.

In the drawing forming a part of this specification:—Figure 1 is a front elevation of my improved baker's oven. Fig. 2 is a section taken on line 2—2 of Fig. 3. Fig. 3 is a section taken on line 3—3 of Fig. 2. Fig. 4 is a section taken on line 4—4 of Fig. 5. Fig. 5 is a section taken on line 5—5 of Fig. 3. Fig. 6 is a longitudinal vertical section. Fig. 7 is a horizontal section taken on line 7—7 of Fig. 3, and Fig. 8 is a section taken on line 8—8 of Fig. 3.

In the drawing A indicates the oven structure which is preferably formed of brick work or fire clay reinforced by steel or iron bars, and is provided with a furnace B having the usual doors B' and an oven chamber C which is provided with a door C' as clearly shown, said oven chamber being spaced from the flues as will be later described, and the furnace by a dead air space E which is pro-

vided with a sliding door E' at its front end and a sliding door E² at its rear end. By forming the dead air space the bottom of the oven will be heated by hot air within the dead air space in such a manner that all danger of anything burning within the oven is prevented. The dead air space also forms means for cooling the bottom of the oven chamber, as by opening the doors cold air can be admitted.

Extending longitudinally under the dead air space to each side of the furnace are flues F, G, H and I, the flues G and H having openings G' H' extending into the furnace, and through which the gases from the front end of the furnace are adapted to pass. The flues F and I communicate with the furnace at their rear ends as clearly shown at F' I' through which the gases from the furnace pass and are carried forwardly and pass upwardly through vertical flues J from which a part of the gases pass into the side flues K which communicate with a transverse flue L at the rear end of the furnace chamber. The gases from the flues G and H pass upwardly through vertical flues M which communicate with a horizontal flue M', and from this flue the gases pass into a horizontal flue M² and are led into a chimney A' formed on a furnace structure A. The gases from the transverse flue L pass upwardly into horizontal flues N and are carried forwardly into a chamber O which has a flue O' leading to the chimney A'. A portion of the gases from the flues F and G which enter the flues J pass upwardly into the return flue P which extends rearwardly, inwardly and backwardly and communicates with the chamber O as clearly shown in order to allow the gases to pass out through the chimney in the ordinary manner.

It will be seen that from the above description that I have provided a baker's oven in which the baking chamber is surrounded upon its top and side by flues through which the gases from the furnace pass in order to heat the same. It will also be seen that the bottom of the oven is heated by hot air in order to prevent anything placed therein from burning, and it is so constructed that the temperature of the dead air space can be regulated.

From a foregoing description it will be seen that I have provided a baker's oven in which the gases pass through flues of such a

length that all of the heat from the gases will be utilized and the oven heated and maintained at an even temperature.

What I claim is:—

5 1. A baker's oven comprising a combustion chamber, an oven, a dead air space arranged between the oven and the combustion chamber and having a width equal to that of the oven, and opening outwardly at
10 opposite ends of the oven structure, flues arranged beneath said dead air space upon each side of the combustion chamber, two of said flues being arranged upon each side, one flue on each side having communication
15 with the combustion chamber at its forward end, and the other flue on each side having communication with said chamber at its rear end, and a chimney, each of said side flues having communication at their forward
20 ends with the chimney.

2. An oven structure having a baking chamber arranged centrally therein, a combustion chamber arranged beneath the baking chamber and of less width, two parallel
25 flues being arranged upon said side of the combustion chamber, a dead air space arranged between the baking and the combustion chambers, said dead air space extending over both sets of side flues, the said
30 flues of each set communicating respectively with the combustion chamber at the forward and rear ends of the structure, and having communication with a suitable chimney, of flues arranged at the sides of
35 the baking chamber, said last mentioned flues communicating with a transverse flue arranged at the rear of the baking chamber

and communicating centrally with the rear end of the combustion chamber, and a plurality of flues arranged above the baking chamber, a portion of said last mentioned
40 flues receiving products of combustion from the rear transverse flue, and the remainder of them receiving products of combustion from the first mentioned flues having communication with the rear of the combustion
45 chamber, all of said upper flues having communication with a suitable chamber.

3. A baker's oven comprising a structure having an oven chamber and provided with
50 a chimney, a furnace arranged under said chamber, a dead air space arranged between said furnace, and oven chamber flues arranged over and to each side of said oven chamber communicating with said chimney,
55 and flues arranged under said dead air space communicating with the first mentioned flues.

4. A baker's oven comprising a furnace structure having a central furnace, a dead
60 air space arranged over said furnace, the dead air space opening to the outer air at each end, doors adapted to close said opening, an oven arranged over said dead air space, flues arranged over said oven, flues
35 arranged to each side of said furnace under said dead air space, said flues communicating respectively with the front and rear ends of said furnace and with the flues surrounding said oven.

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Witnesses:

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