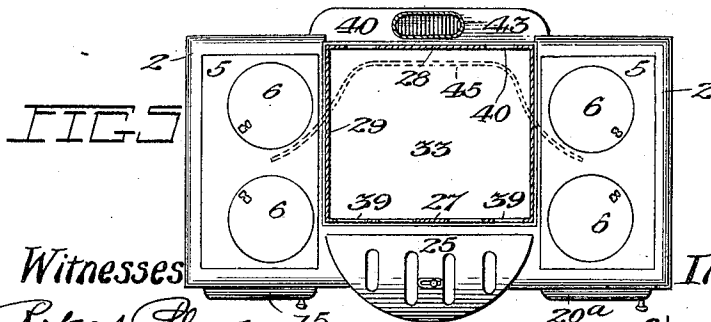
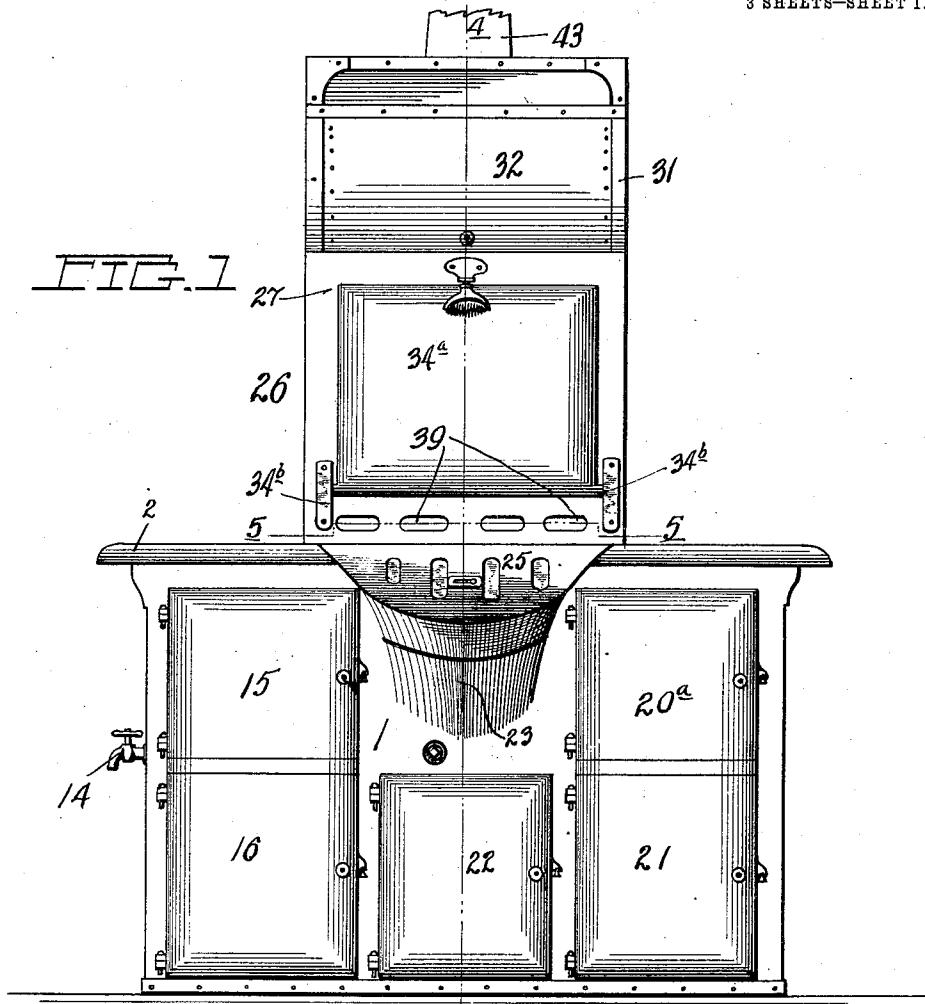


C. M. GENTHNER.
COOK STOVE OR RANGE.
APPLICATION FILED MAY 28, 1910.

1,052,239.

Patented Feb. 4, 1913.

3 SHEETS—SHEET 1.



Witnesses
Robert H. H. H.
Harold W. Lynch

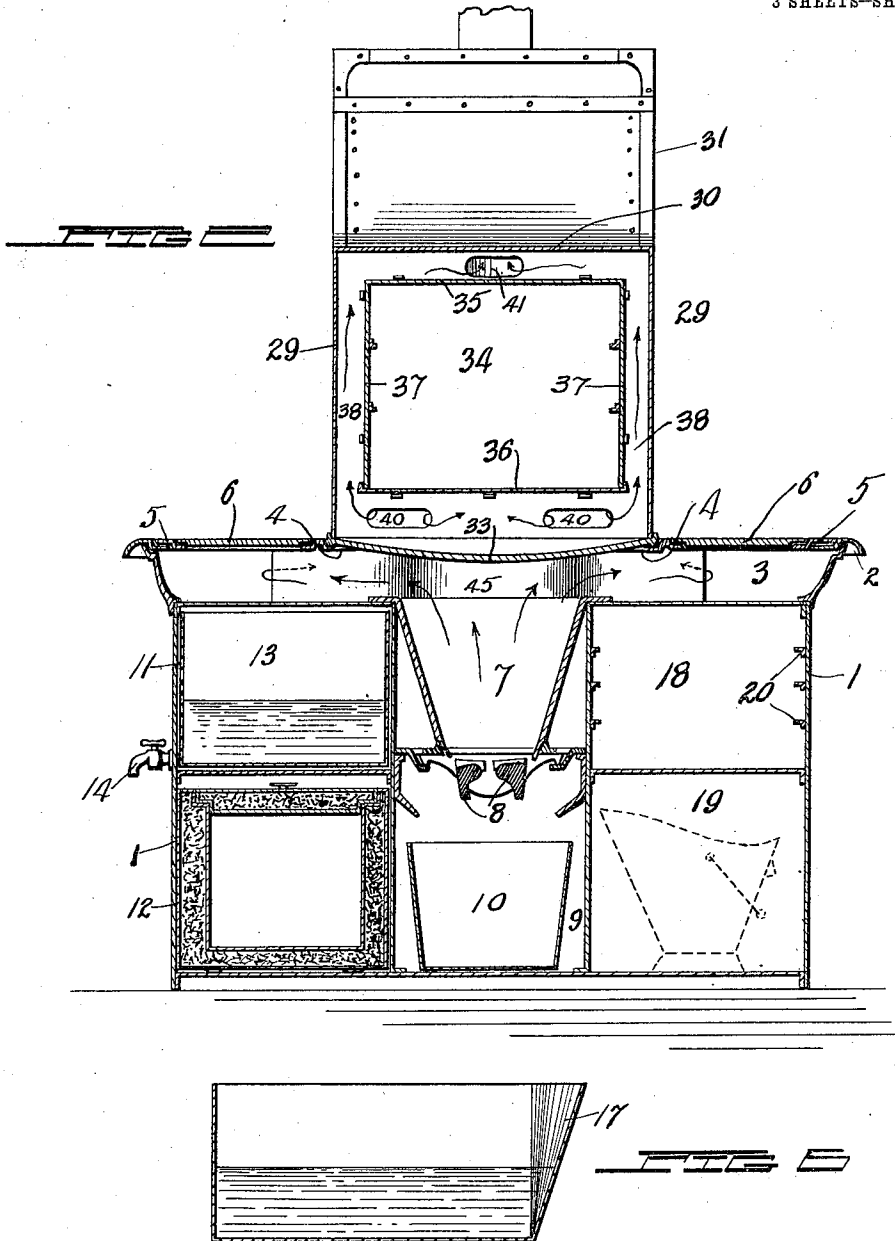
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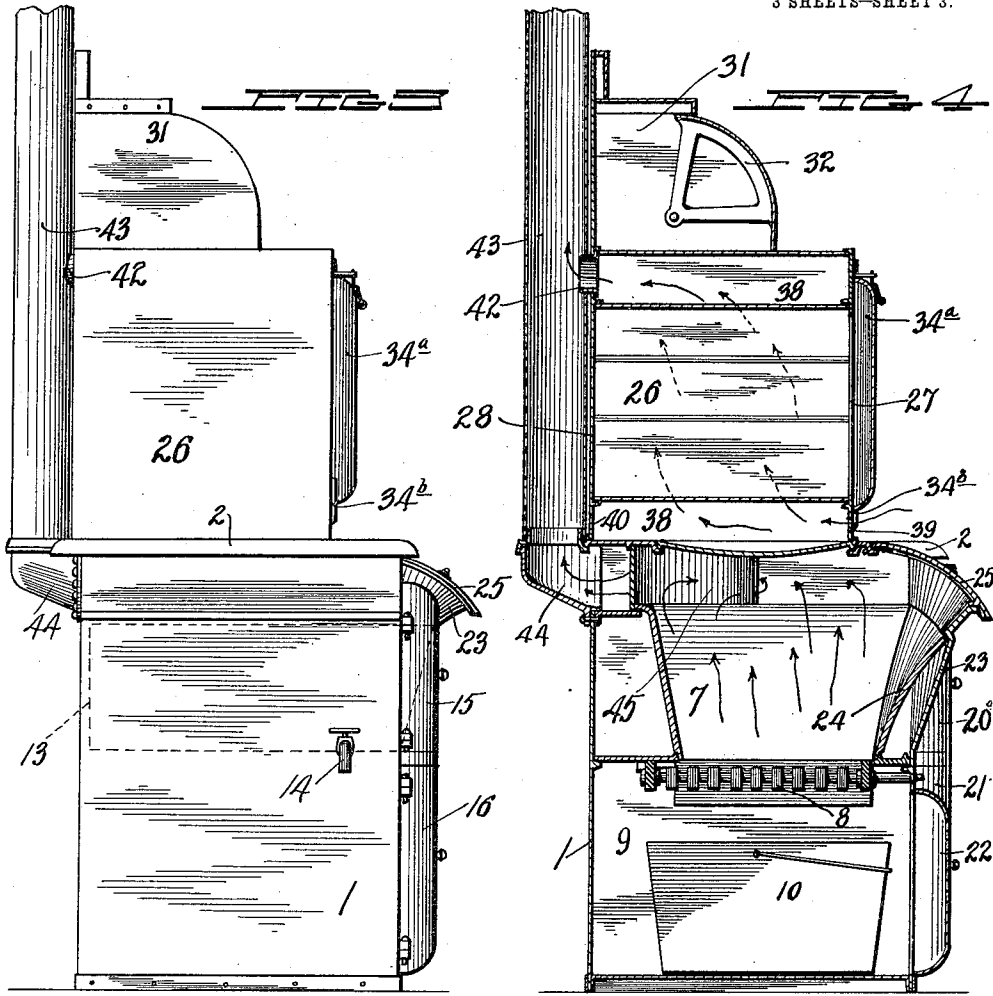
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Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES M. GENTHNER, OF PEORIA, ILLINOIS, ASSIGNOR TO CULTER & PROCTOR STOVE CO., OF PEORIA, ILLINOIS, A CORPORATION OF ILLINOIS.

COOK STOVE OR RANGE.

1,052,239.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed May 28, 1910. Serial No. 563,955.

To all whom it may concern:

Be it known that I, CHARLES M. GENTHNER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Cook Stoves or Ranges, of which the following is a specification.

This invention has reference to cooking stoves or ranges, having for its principal object a fire-pot arranged centrally with respect to the ends of the stove, on one side of which is arranged a reservoir and what is commonly called a "fireless cooker", and on the opposite side a compartment or broiling chamber and a receptacle receiving compartment, and an oven located immediately above or in proximity to the fire-pot; a baffle-plate being located between the top of the fire-pot and bottom of the oven to protect the oven bottom.

With the above and many other objects in view the invention consists in providing a cook stove or range with an elevated oven, which is to say that the oven is placed on what would ordinarily be the top of the stove and locating the fire-pot just below the same. This arrangement makes it possible to provide "end top" plates on opposite sides of the oven and provide the body of the range proper with compartments which may have varying uses. The bottom of the oven is spaced above the fire-pot and separated therefrom by a baffle plate and between the baffle plate and oven bottom is an air circulating space connecting with similar air circulating spaces on the sides and top of the oven, which also connect with a flue at the rear of the range. The products of combustion from the fire-pot are deflected to and beneath the "end top" plates by a preferably sinuous shaped flue strip around which such products of combustion must travel to the flue.

In the practical application of the invention it will, of course, be understood that changes in structural arrangements and details may be resorted to, but a preferred embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a range or

stove embodying my improvements; Fig. 2 is a vertical longitudinal section through the range, the extreme upper portion shown in elevation; Fig. 3 is an end view of the range; Fig. 4 is a cross section on the line 4—4 of Fig. 1; Fig. 5 is a cross section on the line 5—5 of Fig. 1; Fig. 6 is a cross section of the water receptacle in the reservoir.

Like characters of reference indicate corresponding parts throughout the figures.

1 designates the casing of the main body portion of my improved stove or range, which is preferably constructed of steel plate and rectangular in form. The top 2 is preferably spaced a suitable distance from the top of the fire-pot and compartments on either side thereof, forming a chamber 3 for the travel of the products of combustion from the fire-pot. The top is provided with an enlarged centrally disposed rectangular opening 4 and with the oppositely disposed removable "end top" plates 5 and associated removable lids 6.

The fire-pot 7 is located centrally of the range, with respect to its end walls, as seen in Fig. 2, beneath which are the usual grate bars 8 and below the grate bars the ash box 9 and removable ash pan 10. On one side of the fire-pot and ash box, preferably the left hand end of the range looking at Fig. 2, are provided a reservoir 11 and a lower compartment 12 to be used as a "fireless cooker", although the "cooker" proper is separate from the compartment and may be of any well known or approved construction. The reservoir contains a receptacle 13 for holding water, see Fig. 6, and a faucet 14 is suitably connected with said receptacle. Both the reservoir 11 and the compartment 12 are provided with hinged doors 15 and 16, see Fig. 1, and the receptacle 13 in the reservoir has a spout 17 projecting into the space occupied by the door 15 so that water may be easily poured into the receptacle upon opening said door. At the other end of the range and on the opposite side of the fire pot and ash box are arranged compartments 18 and 19, similar to the reservoir 11 and compartment 12. The compartment 18 would ordinarily be used as a heating chamber, being provided with cleats 20 secured to

the opposite walls of said chamber to receive and hold suitable shelving or plates; however, it is intended, to use this chamber, under certain conditions as a broiler. The appliances to go in the compartment are described hereinafter more in detail. The compartment 19 is preferably used merely as a receptacle to hold pots or pans or a coal-hod, as shown in dotted lines in Fig. 2. The compartments 18 and 19 each have hinged doors 20^a and 21 similar to doors 15 and 16, and 22 is a hinged door for the ash box 9.

The front wall of the range where it coincides with the fire-pot has the flared or semi-funnel shaped portion 23 and likewise the front wall of the fire-pot has a similar wall 24, see Fig. 4, and the upper end of the semi-funnel or flared portion 23 of the front of the range is covered by the hinged cover or cap 25, which is preferably hinged so as to be raised and lowered whereby the fuel may be admitted to the fire-pot in an easy and convenient manner.

Located on the top of the stove or range and covering the rectangular opening 4, referred to, is the oven section 26. This section comprises front and rear walls 27 and 28, side or end walls 29 and the top 30 supporting a warming oven 31 provided with a pivoted or hinged gate 32. The bottom wall of the oven section I shall refer to as the baffle-plate 33 which is dished, its convex wall projecting in the direction of the fire-pot, and having its greatest depth centrally of and above the top of the fire-pot and within the chamber 3. The function of this baffle plate is to separate and cause the products of combustion to be directed toward the opposite ends of the range and circulate beneath the "end top" plates, as shown by the arrows in Fig. 2; also to protect the oven bottom, as will become apparent. The oven proper is designated as 34 formed by the top and bottom walls 35 and 36 and the side walls 37, within the oven casing, see Fig. 2, so spaced and arranged with respect to the top and side walls of the oven casing and its baffle plate as to provide an air circulating chamber 38 entirely around the oven and connecting with air inlet openings 39 in the front wall 27 of the oven casing just above the top of the range proper, as shown in Figs. 1, 4 and 5, also air inlet openings 40 in the rear wall 28 of the oven casing, as seen in Figs. 2, 4 and 5. Said chamber 38 further opens into or connects with an opening 41 in the rear wall 28 of the oven casing just beneath the top 30 in which a nipple 42 is secured, see Fig. 4, which leads into the upright flue or pipe 43. This pipe or flue 43 receives the products of combustion from the fire-pot 7 and the chamber 3, connecting as it does

with a nipple or elbow 44 attached to the rear wall of the range proper, just below its top and connecting with the chamber 3. It will be observed that by placing the bottom 36 of the oven proper above the baffle plate 33 that it is protected and also leaves sufficient space for the location of gas burners to be used in lieu of the fuel in the fire-pot. The baffle plate also protects the burners from becoming clogged and keeps them free from contact with the products of combustion. Air entering the openings 39 and 40 in the front and rear walls of the oven casing, beneath the oven proper has a free circulation around the oven and uniformly heats the oven.

To further insure a uniform distribution of the products of combustion from the fire-pot 7 beneath the "end top" plates 5, I provide a flue strip 45, having a sinuous formation, preferably of the shape shown in Figs. 4 and 5. This flue strip is located in the chamber 3, its main portion following the upper portion of the rear wall of the fire-pot 7 and has its ends bent forwardly and toward the sides of the range terminating approximately centrally beneath the "end top" plates 5, see dotted lines in Fig. 5. It will thus be observed that the products of combustion rising out of the fire-pot will be deflected laterally in opposite directions by the baffle plate 33 and will travel to the opposite ends of the flue strip beneath the front portions of the "end top" plates 5, around the flue strip 45 and beneath the rear portions of the "end top" plates, to and out of the flue or pipe 43. If the circulation be too free it may be checked by a damper placed in the flue or pipe 43, not shown. Such a damper is old and well known and it has not been thought necessary to show the same.

The oven casing has an oven door 34^a connecting with the oven proper 34. This door is preferably hinged at its lower opposite sides, as at 34^b so that the door upon being opened is lowered. With the front of the oven casing brought close to the front edge of the range, the lowering of the door above the opening or covering for the fire-pot protects the person using the oven from the heat rising or radiating from the fire-pot.

Having thus fully described my invention what I claim and desire to secure by Letters Patent of the United States, is—

1. A stove formed of a rectangular body, having a fire-pot located centrally with respect to its ends and compartments on the opposite sides of said fire-pot, the top of said stove being spaced above the top of said fire-pot and the top of the uppermost compartments to form a circulating chamber for the products of combustion, a flue connected with said chamber, an oven mounted on the

top of the stove immediately above the fire-pot, a baffle-plate interposed between the bottom of the oven proper and the top of the fire-pot, and a flue strip interposed between the top of the uppermost compartments and the top of the fire-pot on the one hand and the baffle-plate on the other hand and terminating approximately centrally of the compartments on the opposite sides of the fire-pot, whereby the products of combustion from the fire-pot will pass over the uppermost compartments, around the ends of the flue strip and into said flue.

2. A stove formed of a rectangular body, having a fire-pot located centrally with respect to its ends and superimposed compartments on the opposite sides of the said fire-pot, the top of said stove being spaced above the top of said fire-pot and the tops of the uppermost compartments to form a circulating chamber for the products of combustion, a flue connected with said chamber, an oven mounted on the top of the stove immediately above the fire-pot, "end top plates" and associated lids arranged in the opposite ends of the said top and above said compartments, a baffle-plate interposed between the bottom of the oven proper and the top of the fire-pot and a flue strip interposed between the top of the uppermost compartments and the top of the fire-pot, on the one hand, and the baffle-plate, on the other hand terminating approximately centrally of said "end top plates", whereby the products of combustion from the fire-pot will be caused to travel beneath the respective "end top plates" and associated lids, around the ends of the flue strip and into said flue.

3. A stove formed of a rectangular body, having a fire-pot located centrally thereof with respect to its ends and compartments on the opposite sides of said fire-pot, the front wall of the stove where it coincides with the front of the fire-pot being flared, a hinged cover for the upper end of said flared portion, the top of said stove being spaced above the top of said fire-pot and the uppermost compartments to form a circulating chamber for the products of combustion, an oven mounted on the top of the stove immediately above the fire-pot and the front and rear walls of the oven casing provided with openings located immediately below the bottom of the oven proper, the bottom top and side walls of the oven proper being spaced from the walls of the oven casing to form an air circulating chamber communicating with the openings in the walls of the casing as aforesaid, a sinuous flue strip extending across the rear portion of the fire-pot and part way across the uppermost compartments and beneath the top of the stove for directing the products of combustion to the opposite ends of the

stove, and an upright flue communicating with the chamber which communicates with the fire-pot of the stove and also with the chamber surrounding the oven.

4. A stove having a fire-pot located centrally of said stove with respect to its ends and having compartments on opposite sides of said fire-pot, the top of the fire-pot and uppermost compartments being spaced from the top of the stove to provide a chamber for the travel of the products of combustion, an oven casing supported on the top of the stove immediately above the fire-pot, the lowermost wall of said casing being dished and serving as a baffle-plate, the oven proper in said casing formed by upper, lower and side walls suitably spaced from the corresponding walls of the oven casing to produce an air circulating chamber around said oven, said chamber in its lower portion having air inlet openings in certain walls of the casing and said chamber in its upper portion having an exit opening in one of the walls of said casing, a door for said oven hinged at its lower portion, an upright flue connected with the chamber below the top of the stove and also with the exit opening in the chamber in the oven casing, and a flue strip for causing the products of combustion from the fire-pot to travel to the opposite ends of the stove and around the ends of said flue strip to the upright flue.

5. A stove having a fire-pot, an oven mounted on the top of the stove above the fire-pot, said oven comprising a casing and the oven proper in said casing spaced from the walls of said casing so as to provide an air circulating space around the walls of the oven proper, the lower wall of the oven casing forming a baffle-plate between the fire-pot and the bottom of the oven proper and a sinuous flue strip extending longitudinally across said stove above said fire-pot to direct the products of combustion toward the opposite ends of the stove.

6. A stove having a fire-pot, an oven mounted on top of the stove and above the fire-pot, said oven comprising a casing and an oven proper in said casing spaced from the walls of said casing so as to provide an air circulating space around the walls of the oven proper, the bottom wall or plate of the casing being dished or concaved and forming a baffle-plate between the bottom of the oven proper and the fire-pot and a sinuous flue-strip disposed longitudinally of the stove beneath the baffle-plate and extending beyond said baffle-plate.

7. A stove having a fire-pot, an oven mounted on the top of the stove above the fire-pot, comprising a casing and an oven proper in said casing spaced from the walls thereof so as to provide an air circulating space around the walls of the oven proper,

a flue connected to said stove, the lower wall of said oven forming a baffle-plate between said fire-pot and said oven proper, a sinuous flue strip between said baffle-plate and said
5 fire-pot to direct the products of combustion toward the ends of the stove, a wall of the oven casing having an opening connected with said flue and another wall thereof

having air inlet openings connected with said air circulating space.

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

CHARLES M. GENTNER.

Witnesses:

JOHN DOWNS,

A. R. ROBINSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."