Feb. 4, 1936. J. TELLER ET AL 2,029,449

COOKING RANGE CONSTRUCTION

Filed March 14, 1932 3 Sheets-Sheet 1

Fig. 1.

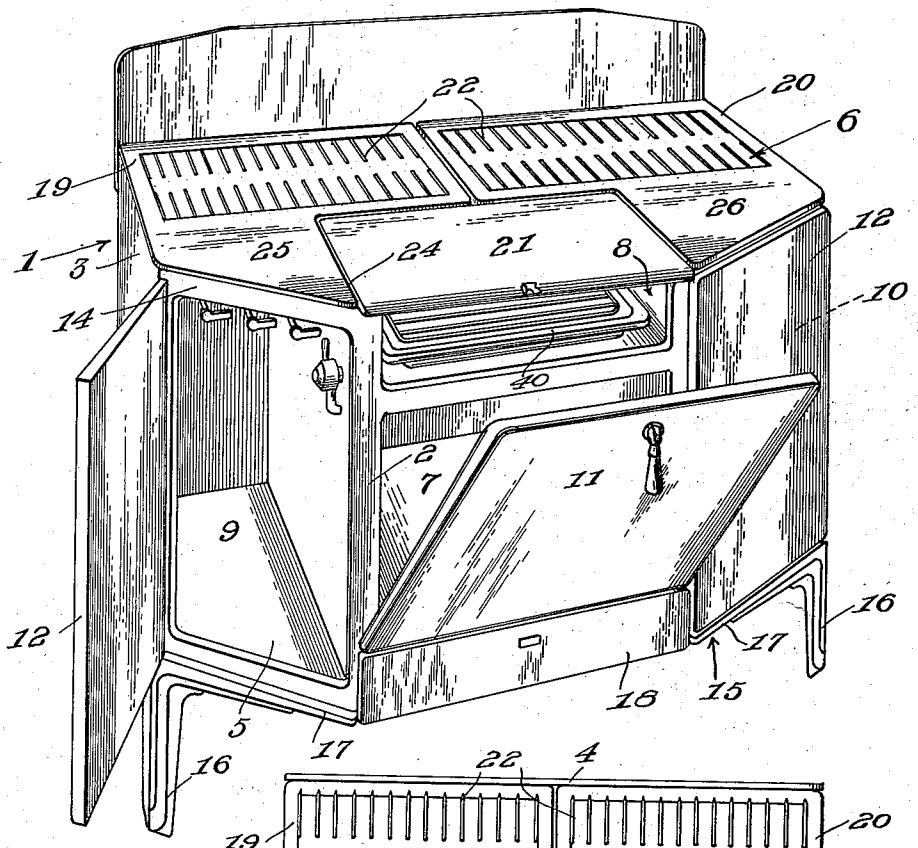


Fig. 2.

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COOKING RANGE CONSTRUCTION

Filed March 14, 1932 3 Sheets-Sheet 2

Fig. 3.

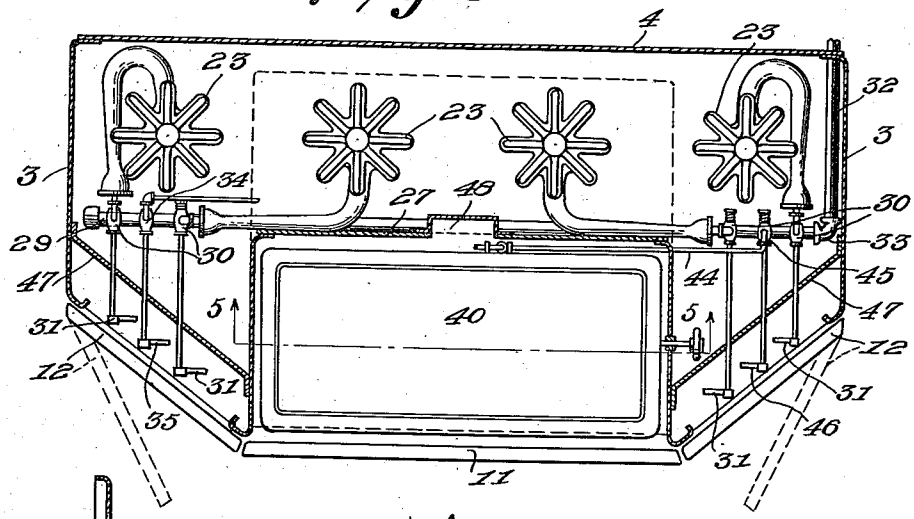


Fig. 4.

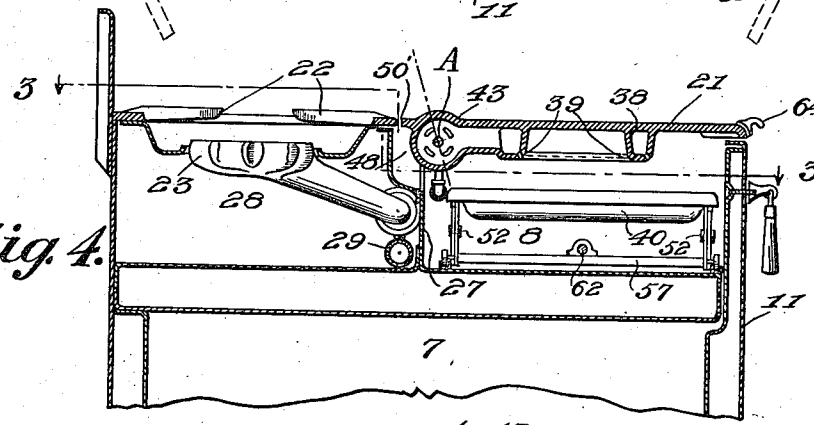
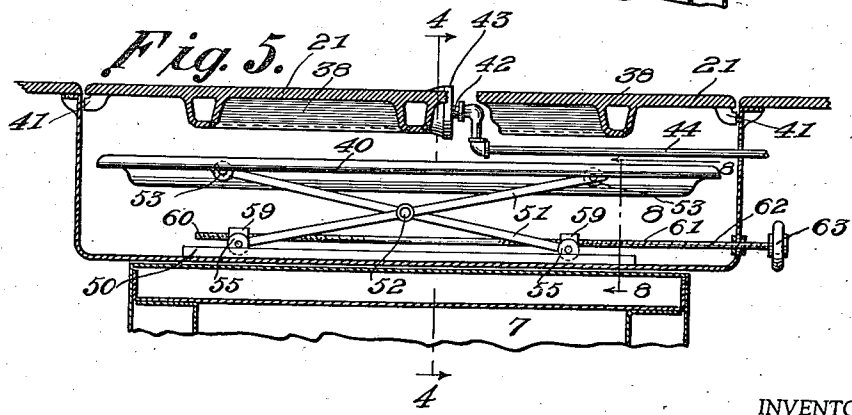


Fig. 5.



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Feb. 4, 1936. J. TELLER ET AL 2,029,449

COOKING RANGE CONSTRUCTION

Filed March 14, 1932 3 Sheets-Sheet 3

Fig. 6.

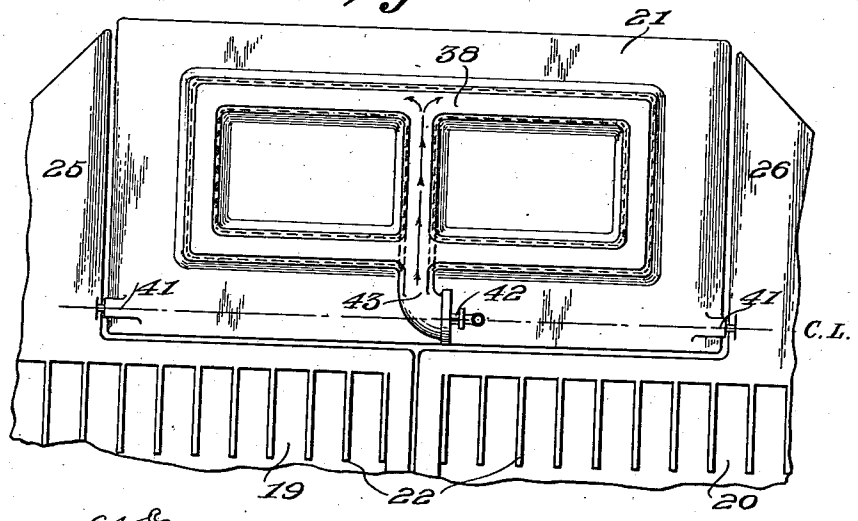


Fig. 7.

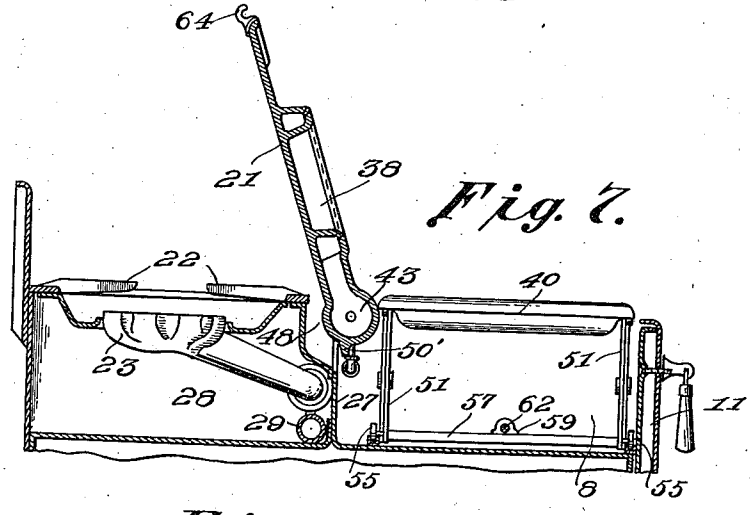
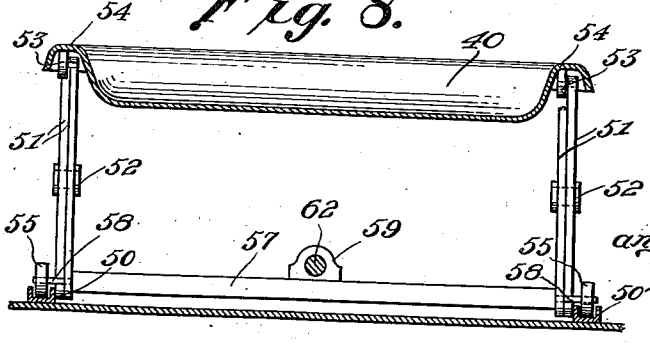


Fig. 8.



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Patented Feb. 4, 1936 2,029,449

UNITED STATES PATENT OFFICE

2,029,449

COOKING RANGE CONSTRUCTION

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Application March 14, 1932, Serial No. 598,818

7 Claims. (Cl. 126—41)

This invention relates to cooking range construction, and while shown in the accompanying drawings as being particularly adapted for gas, may as well be employed for use with electricity or other similar heating means.

Among the several features of the present construction, as differentiating from the prior art with which we are familiar, is that of the broiler compartment arrangement and construction, whereby access thereto may be had through a top opening in the stove as distinguished from those types in which it is necessary for the operator to move the broiler pan support forwardly of the range through a front opening. The advantages incident to such a structure as is here proposed, will be readily apparent to those familiar with this art, and especially the person using the range, it being observed that a better inspection of the material being cooked, with considerably less trouble, may be had by our arrangement than with prior devices. By the novel and simple arrangement which is herein set forth, the broiler compartment, in the first instance, is at an elevation which is at the most convenient working position for the person using the range, and it is open at its top, when uncovered by a readily movable cover, affording much more convenient inspection and handling of the material upon the broiler pan support for cleaning the compartment and associated elements for operating the support.

Due to the fact that the broiler compartment is open at its upper portion, we are able to provide a vertically movable broiler pan support, the operating mechanism for raising and lowering the same being conveniently accessible and simple of construction, and, when the doors of the range are closed, concealed along with the other operating mechanism, such as the valve handles.

An additional feature resides in the combination with the broiler compartment cover, of a burner arranged on its under side and preferably but not necessarily, formed during the casting thereof. However, it is to be understood that the burner might as readily be formed separately and suitably attached thereto.

An additional feature resides in the construction and arrangement of the cooking top, whereby the said top may be formed in sections, certain of which form the grid carrying portions while the other forms the broiler compartment cover, all being associated to conveniently provide a flat top combined cooking and working surface.

An additional feature resides in the construction of the front frame of the range, whereby the lateral portions of the range front are rearwardly inclined to give the corners thereof a chamfered or bevelled effect, the contour of which is also imparted to the entire range top as clearly illustrated.

In the accompanying drawings,

Figure 1 is a front perspective view of the range with certain of the doors open to show the interior arrangement;

Figure 2 is a top plan view of the range;

Figure 3 is a horizontal sectional view through the upper part of the range, on substantially the line 3—3 of Fig. 4.

Figure 4 is a vertical sectional view on the line 4—4 of Fig. 5, with pan and supporting and raising means shown in elevation.

Figure 5 is a vertical sectional view on substantially the line 5—5 of Figure 3.

Figure 6 is a bottom plan view of the broiler burner section;

Figure 7 is a view similar to Figure 4 with the broiler burner section elevated to expose the broiler pan, and

Figure 8 is a transverse sectional view through the broiler pan and elevating mechanism, on line 8—8 of Fig. 5.

Referring now to the drawings by numerals of reference, 1 indicates generally the range having a front frame 2, side walls 3, a back wall 4, floor 5 and a cooking top 6, the range being conveniently divided into a lower central compartment 7 constituting the baking oven, a centrally arranged broiler compartment 8 above the baking oven compartment, and side compartments 9 and 10 which may serve as a warming chamber and storage compartment respectively.

The front frame 2 defines openings for the centrally arranged oven and broiler compartments which are adapted to be closed by a door 11, preferably hinged at its bottom edge to swing downwardly and outwardly, and for the laterally disposed side compartments 9 and 10, adapted to be closed by hinged doors 12.

The front frame 2 distinguishes from the usual flat front stove construction, in that the central portion which defines the framing for the oven and broiler compartment doors, is parallel with the back wall 4, while the side portions designed at 14, are inclined rearwardly and laterally, to produce a bevelled or chamfered effect to the range ends, particularly as seen in Figure 2, showing the range in top plan. The range body is suitably mounted on a lower frame 15, having legs 16, the frame being provided with

flanges 17 which are flush with the front of the doors 12 when closed. The intermediate front portion of the frame may be covered by a panel 18, having its front face flush with that of the oven door 11 when closed.

The cooking top 6 is conveniently formed of three cast sections 19, 20, and 21, with grids 22, arranged in a straight line, and overlying the burners 23. The central forward portion of the top which includes the grid sections is cut away to provide an elongated rectangular opening 24 adapted to receive the cast section 21, which when lowered into closed position, as shown in Fig. 1, cooperates with the side wings 25 and 26 of the grid sections 19 and 20 in providing a flat or flush upper surface, which at times may serve as a work or table top.

In the portion of the range body to the rear of the broiler compartment 8, from which it is separated by a partition wall 27, preferably of insulated material, is a burner compartment 28 in which are disposed the burners 23 arranged in a straight line, longitudinally thereof, the said burners being connected with the gas supply manifold 29, through connections having valves 30, controlled by handles 31, the valve stems of which extend toward the front of the side compartments 9 and 10, the said handles normally lying within the plane of the door frames, and thus concealed when the doors 12 are closed, although readily accessible for operation when the doors are open at the left hand side of the range as shown in Figure 1. The supply pipe 32, connected with the manifold through elbow 33 may pass through the rear wall of the range. The oven burner, (not shown), may be controlled through valve 34 and handle 35.

One of the principal features of the present invention resides in the novel arrangement of broiler burner and pan support, shown more particularly in Figures 4 and 5, whereby, instead of mounting the broiler pan and its supporting mechanism within the broiler compartment, in such manner that its operation necessitates a sliding action in order to place or remove the commodity with respect thereto, or to inspect it during the cooking operation, it is arranged within a compartment in the upper section of the range, below a hinged top plate, which simultaneously forms a cover for the broiler compartment and a broiler burner, the hinged top being capable of being swung vertically on its axis to afford access to the broiler pan and permit it to be elevated to or above the upper plane of the range top or cooking surface.

To this end, as shown more clearly in Figure 4, we provide the cover for the broiler compartment in the form of the section 21 previously referred to, said cover section having preferably cast therewith, on its under face, a burner 38, having downwardly directed burner jet openings 39, which direct the flame in the direction of the broiler pan 40.

The hinged cover and burner section 21 swings upwardly and rearwardly of the range top surface on the axis A (Fig. 4), being pivotally supported at each end through the hinge arrangement 41, and the nozzle 42 extends into the usual central opening of the air and gas mixer 43, preferably combined as a part of the cover casting. Gas is supplied to the broiler burner through pipe 44 having a valved connection 45 with the manifold 29, and controlled by a valve handle 46. The stems of the various valve handles may conveniently be supported intermediate their length by passing through openings in a brace plate 47 secured to the side walls of the compartments 9 and 10.

For purposes of clearance for the enlargement constituting the mixer portion of the hinged cover and burner plate 21, the partition wall 27 may be provided with a recess or pocket 48, the space between the rear portion of the cover 21 and the grid sections at this point being closed by an apron 50 on said cover, when the latter is lowered, as shown in Fig. 4.

One of the important features of the present construction resides in the mechanism for supporting and elevating the broiler pan 40, when the broiler burner section is elevated as clearly illustrated in Figure 7, permitting said pan to be raised to or above the top plane of the cooking top, and thereby differentiating from prior constructions in which the pan must be slid outwardly through a front opening in the stove or range.

To this end, we provide the structure as illustrated, comprising an elevating frame embodying two pair of crossed bars 51 arranged in parallel relation within the broiler compartment 8, each pair being pivoted centrally of their lengths at 52, the upper extremity of each of the bars being provided with an anti-friction roller which travels within the lateral grooved portions 54 of the pan 40, as shown more clearly in Fig. 8. The lower extremity of each bar 51 is likewise provided with an anti-friction roller 55 adapted to travel in parallel tracks 56 on the floor of the broiler compartment. For the purpose of operating the cross-bars 51 in unison, whereby they operate by a lazy-tong action, to raise the pan 40, we provide a pair of transverse rods 57 which may carry bearings 58 for the rollers 55, said bearings passing through the lower ends of the respective cross bars.

Intermediate their ends, each of said cross rods is provided with a nut 59 through which passes the threaded portions 60 and 61 of an operating rotary shaft 62, the threaded portions being respectively oppositely threaded, and serving to cause the transverse rods 57 to move toward or from one another when the shaft is rotated by the handle 63 on the end thereof which extends into the compartment 10 within easy access to the operator. It will thus be observed that when the burner section 21 is elevated into the position shown in Figure 7 by the lifting member 64, the broiler pan supporting frame, and with it the pan, may be elevated as illustrated, or lowered into the position shown in Figures 4 and 5. The construction illustrated, interferes in no way with the opening of the front door 11 when desired.

Having described our invention, what we claim as new and desire to protect by Letters Patent is:

1. A range construction comprising a range body having a cooking top formed in a plurality of front and rear sections, said rear sections having burner grids thereon, a broiler compartment formed at and below the plane of said grid sections disposed at the intermediate portion of said body, and open at its top, a cover for said compartment forming the other of said sections forward of said grid sections, a broiler pan support mounted within said broiler compartment, and a burner carried on the lower side of said cover.

2. A range construction comprising a range body having a cooking top with a forwardly recessed portion, a broiler compartment in said range body below said recessed portion, a broiler

pan support within said compartment, a pivoted cover section for said compartment adapted to close said recessed portion, and a burner carried by and movable with said cover, the pivotal axis of said cover being arranged in substantially the plane of said cooking top.

3. A range construction comprising a range body having a cooking top provided with burner grids at its rear portion, said top having a forward recess, a broiler compartment below said recess, a cover adapted to close said recess and overlie said broiler compartment, and a burner carried by said cover.

4. A range construction comprising a range body, an upper burner compartment within said body toward the rear thereof, burners disposed within said burner compartment, an open top broiler compartment forward of said burner compartment, a burner carrying cover for said broiler compartment, a cooking top, and valve operating mechanism for said burners below said cooking top.

5. A range construction comprising a range body having a cooking top, a broiler compartment open at its top and front, a broiler pan support mounted within said compartment, a door for the front opening, a pivoted cover for the top of said compartment movable on a fixed axis disposed substantially in the plane of the cooking top, and a burner mounted on the lower side of said cover, and gas supply means for said burner also disposed in the axis of said pivoted cover.

6. A range construction comprising a range body having a cooking top provided with an opening, a broiler compartment in said range body below said opening, a pivoted cover adapted to be moved to cover and uncover said broiler compartment, the pivotal axis of said cover being arranged substantially in the plane of the cooking top, a burner carried by said cover on the lower side thereof, and means for supplying gas to said burner also disposed in the axis of said cover.

7. A range construction comprising a range body having a cooking top provided with an opening, a broiler compartment in said range body below said opening, a pivoted cover adapted to be moved to cover and uncover said broiler compartment, the pivotal axis of said cover being arranged substantially in the plane of the cooking top, a burner carried by said cover on the lower side thereof, and structurally integral therewith, and means for supplying gas to said burner also disposed in the axis of said cover.

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