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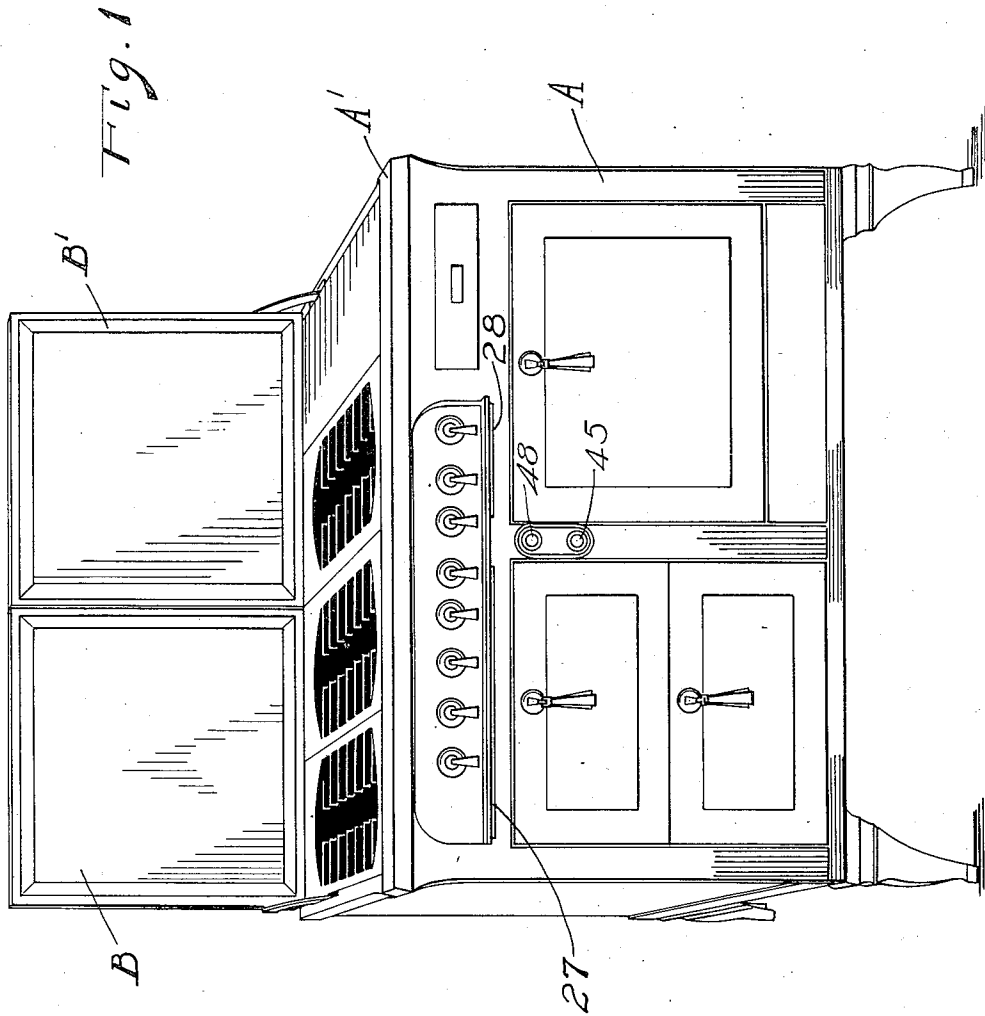
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2,028,636

RANGE

Filed April 16, 1932

4 Sheets-Sheet 1



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4 Sheets-Sheet 2

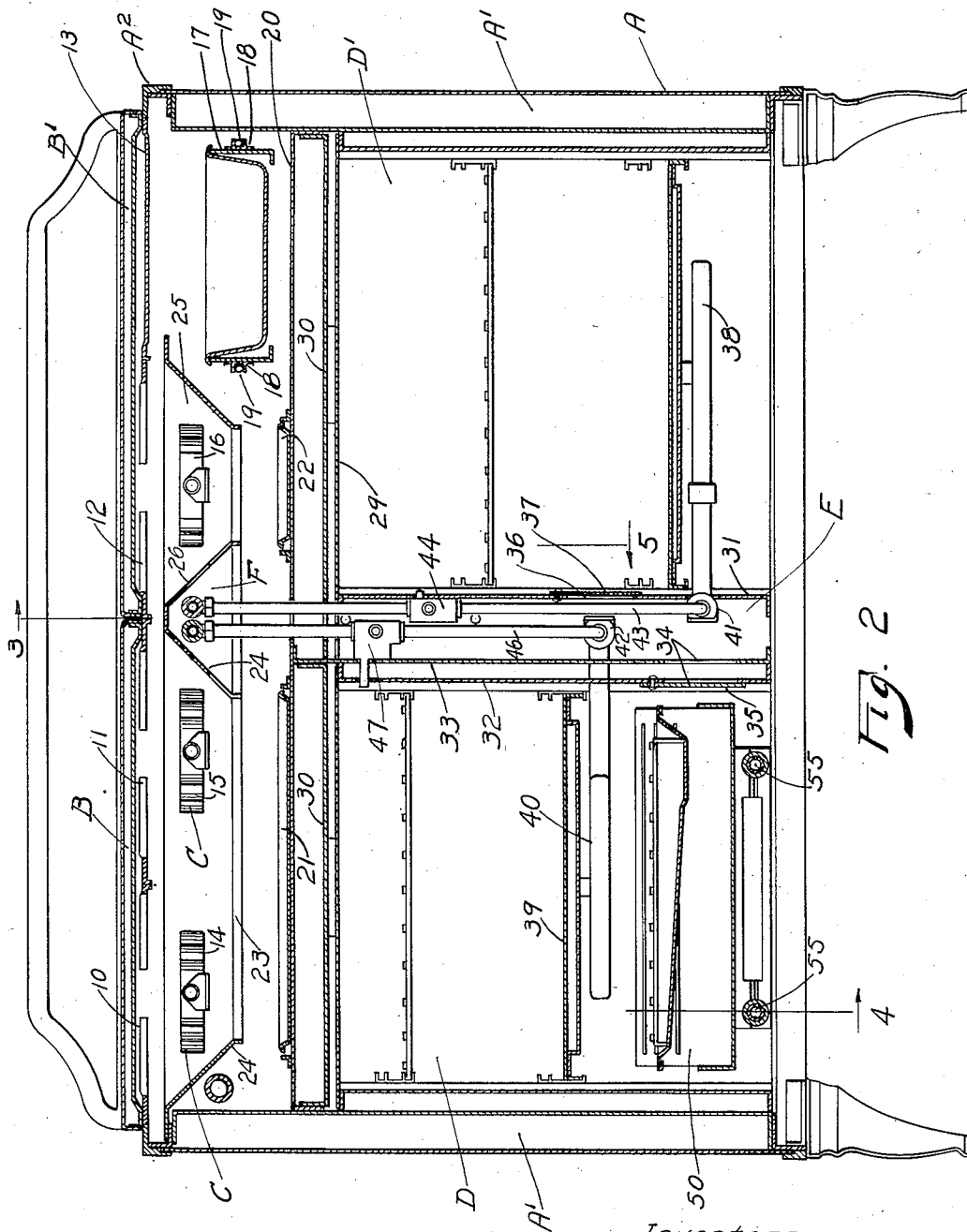


Fig. 2

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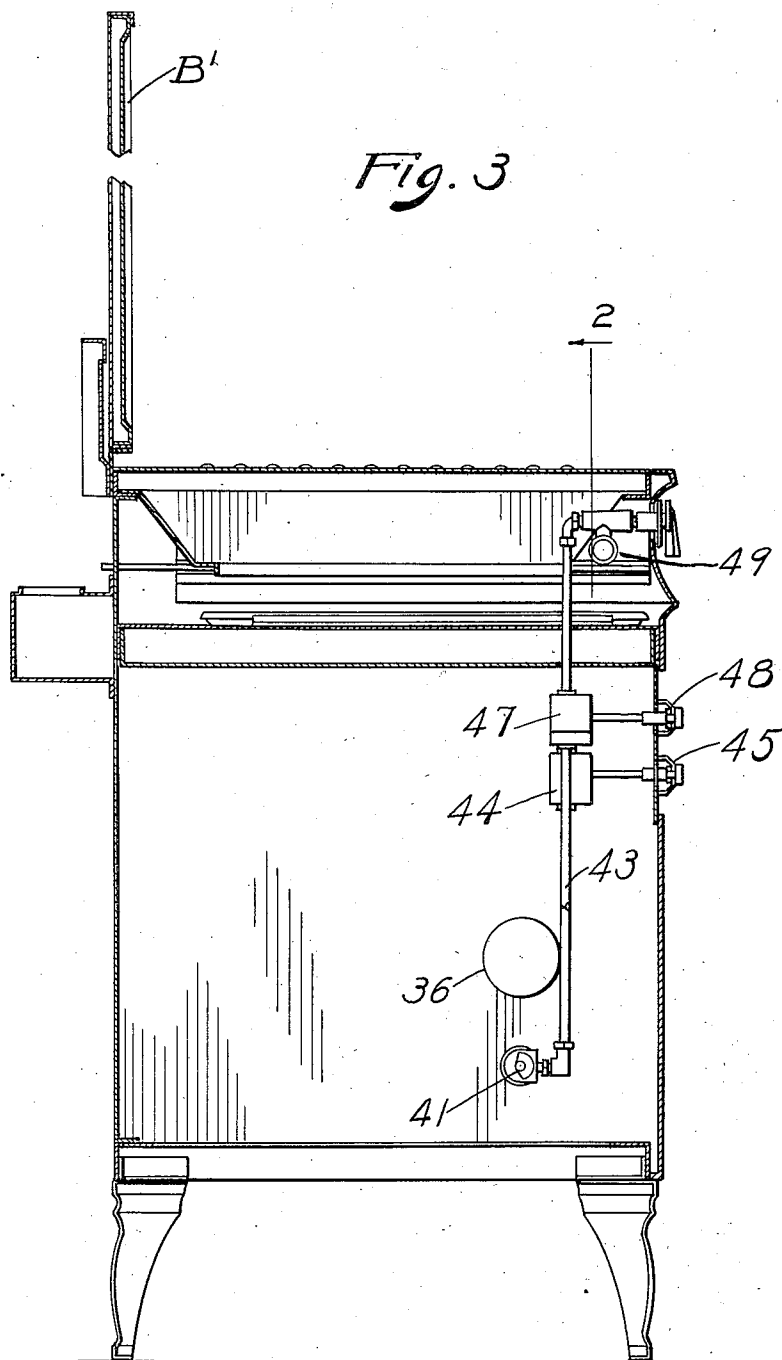
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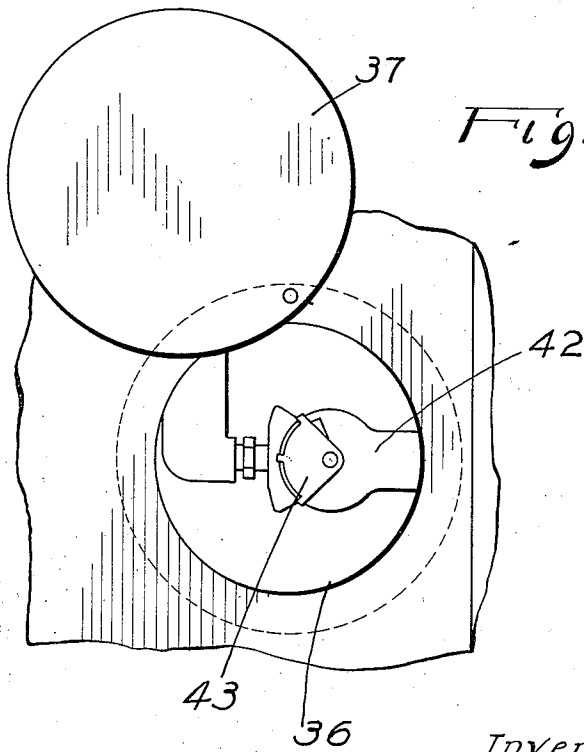
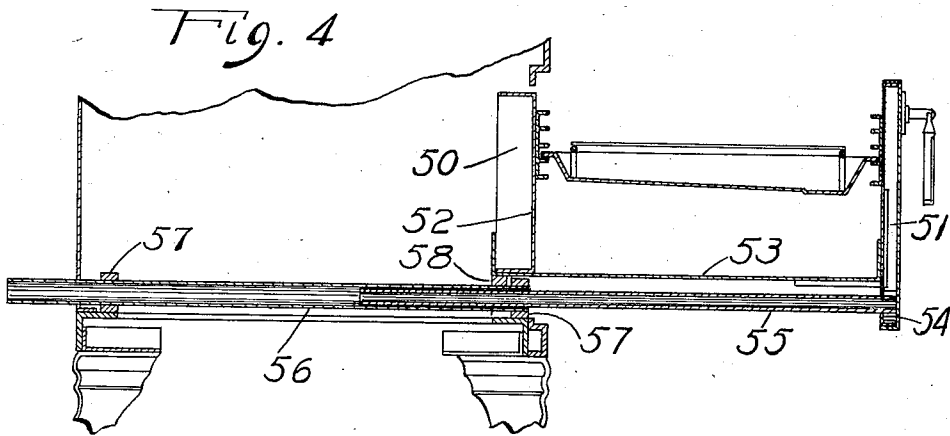
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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

2,028,636

RANGE

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5 Claims. (Cl. 126—39)

This invention relates to ranges, and more particularly to electric ranges and ranges adapted to burn fluid-fuel. While the invention is described in connection with a gas range, many of the novel features may be employed with other types of ranges.

A primary object of the invention is to provide an improved range construction which is compactly arranged to afford greater burner-top or cooking space and greater oven capacity while at the same time affording ample table surface at the top of the range. A further object is to provide a construction in which the pipes which furnish fuel to the burners are compactly housed and rendered accessible through the main compartments of the range. Other specific improvements, objects and advantages will appear as the specification proceeds.

The invention is described, in its preferred embodiment, in the accompanying drawings, in which—

Figure 1 is a perspective view of a range embodying my invention; Fig. 2, a longitudinal sectional view, the section being taken as indicated at line 2 of Fig. 3; Fig. 3, a transverse sectional view of the range with the covers raised, the section being taken as indicated at line 3 of Fig. 2; Fig. 4, a broken detail sectional view, the section being taken as indicated at line 4 of Fig. 2; and Fig. 5, an enlarged broken detail view, the view being taken as indicated at line 5 of Fig. 2.

In the illustration given, A designates the range frame which may be equipped with insulation panels A' and with a perimetric top frame A²; B and B' represent a pair of covers hingedly connected to the frame A; C represents a plurality of burners supported near the top of the range; D and D' represent a pair of vertically disposed main compartments extending below the covers B and B'; and E represents an intervening vertical compartment extending between compartments D and D'.

The range frame A may be of any suitable construction. In the illustration given, it is of general rectangular shape and supports a perimetric top frame A¹ which extends across the entire range top. Supported by the top frame A¹ are burner tops 10, 11 and 12. Burner tops 10 and 11 occupy substantially one-half of the top frame surface while the burner top 12 extends beyond the median line of the top frame and lies wholly beneath the top cover B'. Between the burner top 12 and the adjacent side of the range extends a table top plate 13 which is also concealed by the cover B' when the cover is lowered.

The covers B and B' may be of any suitable construction. As shown, they are of substantially equal dimensions and each covers about one-half of the top frame A'.

The burners C may be of any desired number and arranged according to any suitable design. It is preferred, however, to have some of the burners occupy substantially the entire space below the cover B and at least one or more burners disposed below the cover B'. If desired, the cover B may be eliminated, leaving the cover B' to conceal the burner top 12, when it is desired to use only the burners below the burner tops 10 and 11. In the illustration given, burners 14 and 15 are positioned below burner tops 10 and 11 respectively, while the burner or burners 16 extend below the burner top 12. Below the table top plate 13 is a utensil drawer 17 equipped with guides 18 slidably engaging fixed rods 19.

Below the burners C and extending longitudinally of the range is a partition wall 20 upon which is supported a large drip pan 21 and a small drip pan 22. The drip pan 21 extends below burners 14 and 15 and pan 22 extends below burner 16. A burner tray guide 23 having 25 inclined side walls 24 extends about burners 14 and 15 and serves to direct grease and the like which may fall from the burner tops or burners upon tray 21. A similar tray guide 25 incloses burner 16 and has its inclined sides 26 extending 30 over pan 22. The inner inclined sides 24 and 26 of tray guides 23 and 25 form between them a pipe space compartment F through which the gas pipes may extend, as will be later described. The drip pans 21 and 22 may be removed through 35 the openings 27 and 28 in the front wall of the range.

Spaced below the partition 20 is a second longitudinal partition 29 which provides between it and partition 20 space for insulation 30.

The range space below the partition 29 is divided into the two main compartments D and D' and a central or intervening compartment E by the two vertical and centrally disposed walls 31 and 32. A second partition wall 33 is secured close to wall 32 to provide therebetween an insulation space. Both walls 32 and 33 are provided with aligned openings 34, the opening in wall 32 being closed by a circular pivotally secured cover 35. The wall 31 is also provided at a higher elevation with an opening 36 closed by pivoted cover 37. The compartment E is preferably left open at its lower side in order to admit fresh air to the burners hereinafter described.

The compartment D' is provided with suitable

insulation to form a large oven and below the oven is supported a burner 38.

The compartment D is divided by a partition wall 39 into two compartments, an upper, or pastry oven compartment, and a lower, or broiler oven compartment. A burner 40 is supported below partition wall 39.

Each of the burners 38 and 40 communicate with air mixers 41 and 42 which are disposed within the intervening compartment E. The mixers may be of the usual construction, as shown more clearly in Fig. 5. The mixer is provided with a valve 43 which may be adjusted to admit the proper amount of air. As shown more clearly in Figs. 2, 3 and 5, the mixer 42 is aligned with the opening 36 through which access may be had to adjust the valve of the mixer. Similarly, the air mixer 41 is aligned with the openings 34 in walls 32 and 33 so that access may be had to mixer 41 from within the broiler compartment.

Communicating with mixer 41 is a gas pipe 43 which extends upwardly through the compartment E and into the compartment F formed by the burner guides 23 and 25. A thermostatically controlled heat regulator 44 is carried by pipe 43 and is equipped with an operating knob 45 which extends through the front of the range. A second gas pipe 46 leads from mixer 42 and extends upwardly through compartment E and into compartment F. The pipe 46 carries also a thermostatically controlled heat regulator 47 equipped with an operating knob 48. The pipes 43 and 46, as shown more clearly in Fig. 3, are turned forwardly in compartment F where they communicate with the main manifold line 49.

Within the broiler compartment below burner 40 I prefer to use a slidably mounted broiler drawer 50. As illustrated more clearly in Figs. 2 and 4, the drawer 50 is equipped with front and rear sides 51 and 52, respectively. Preferably, the front side 52 extends below the floor 53 of the drawer. Secured to the front depending wall 54 are a pair of tubular supports 55 which telescopically engage a pair of fixed tubular guides 56.

The guides 56 are supported within guide blocks 57 which are apertured to receive the tubes 56. The guide blocks 57 rest upon frame members at the front and rear sides of the broiler compartment. In order to support the rear end of the broiler drawer, the rear wall 52 is provided with saddles or bearing members 58 which rest upon the fixed tubular guides 56.

In the operation of the range, the cover B may be raised to expose the burners 14 and 15 which occupy about one-half of the range top space. For ordinary purposes, the housewife will find that the burner space thus provided is sufficient and she can therefore utilize the table top afforded by the closed cover B' as a table. When, however, it becomes necessary to have greater burner space, the burner top 12 may be exposed by raising the cover B'. At the same time, the top plate 13 affords a surface upon which pans and utensils may be placed. The compartment B' may be utilized as a main oven compartment while the upper chamber in compartment D may be utilized as a pastry compartment, the chamber therebelow being used as a broiler compartment. Gas is furnished for the burners in the compartments D and D' through pipes 43 and 46 and air is supplied to the mixers 41 and 42 through the open side at the bottom of compartment E. If it should be desired to regulate the mixer valve 43, the cover 37 in oven D' may be swung to one side and access to the valve had through opening 36.

Similarly, the mixer 41 is accessible through the aligned openings 34 in walls 32 and 33. Space is provided for the upper ends of gas pipes 43 and 46 by the inclined walls of the burner guides 23 and 25 which provide the pipe space compartment F. Suitable burner knobs or handles extend through the front of the range for controlling the passage of gas from the manifold 49 into the pipes 43 and 46 as well as in the pipes leading to the top burners.

The broiler drawer which is supported at its front by the ends of the tubular supports 55 and at its rear side by the saddles 58 which slide upon the fixed guides 56, may be drawn to the extended position shown in Fig. 4 or returned into the broiler compartment, the telescoping members 55 and 56 causing the drawer to move easily and true. The fixed guide blocks 57 afford a rigid support for guides 56 and lend additional rigidity to the drawer structure by being positioned well within the sides of the drawer.

The range is compactly constructed and permits the entire space within the frame to be utilized. At the same time, the covers of the range may be manipulated to increase the burner top space or the table top space as desired.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

I claim:

1. In a range, a frame, a pair of covers hingedly connected to said frame, burners supported in the top of said range below said covers, and guide trays supported below said burners, said guide trays being provided with inwardly inclined sides and having their adjacent sides providing a pipe-space compartment between them.

2. In a range, a frame, a pair of covers hingedly connected to said frame, burners supported in the top of said frame and under said covers, removable drip pans supported below said burners, guide trays supported between said burners and said drip pans, said guide trays having their sides inwardly inclined and having their adjacent sides providing between them a pipe-space compartment, and gas pipes extending through said compartment.

3. In a range, a pair of vertically disposed main compartments and an intervening pipe compartment, a burner in at least one of said main compartments, a mixer tube communicating with said burner and extending into said intervening pipe compartment, said mixer tube being provided with a regulatable air valve, and a gas pipe extending into said intervening pipe compartment and communicating with said mixer tube, a wall between said intervening pipe compartment and one of said main compartments being provided with a cover-controlled opening through which access is afforded to the valve of said mixer tube.

4. A range comprising: a frame, a range top equipped with burners, a horizontal partition wall below said top and extending across said range frame, a pair of closely spaced parallel walls extending downwardly from said horizontal partition and dividing the range therebelow into three compartments consisting of two side compartments and a central pipe compartment, and a burner in at least one of the side compartments and having a mixer tube extending through one

of said parallel walls into the central compartment, the other parallel wall being provided with an opening aligned with said mixer tube.

5 In a range, a pair of vertically disposed main compartments and an intervening pipe chamber, a burner in at least one of said compartments, a mixer tube communicating with said burner and extending into said intervening chamber, said mixer tube being provided with a

regulatable air valve, a gas valve extending into said intervening chamber and communicating with said mixer tube, a wall between said intervening chamber and one of said main compartments being provided with means whereby access is afforded through said wall to the valve of said mixer tube. 5

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