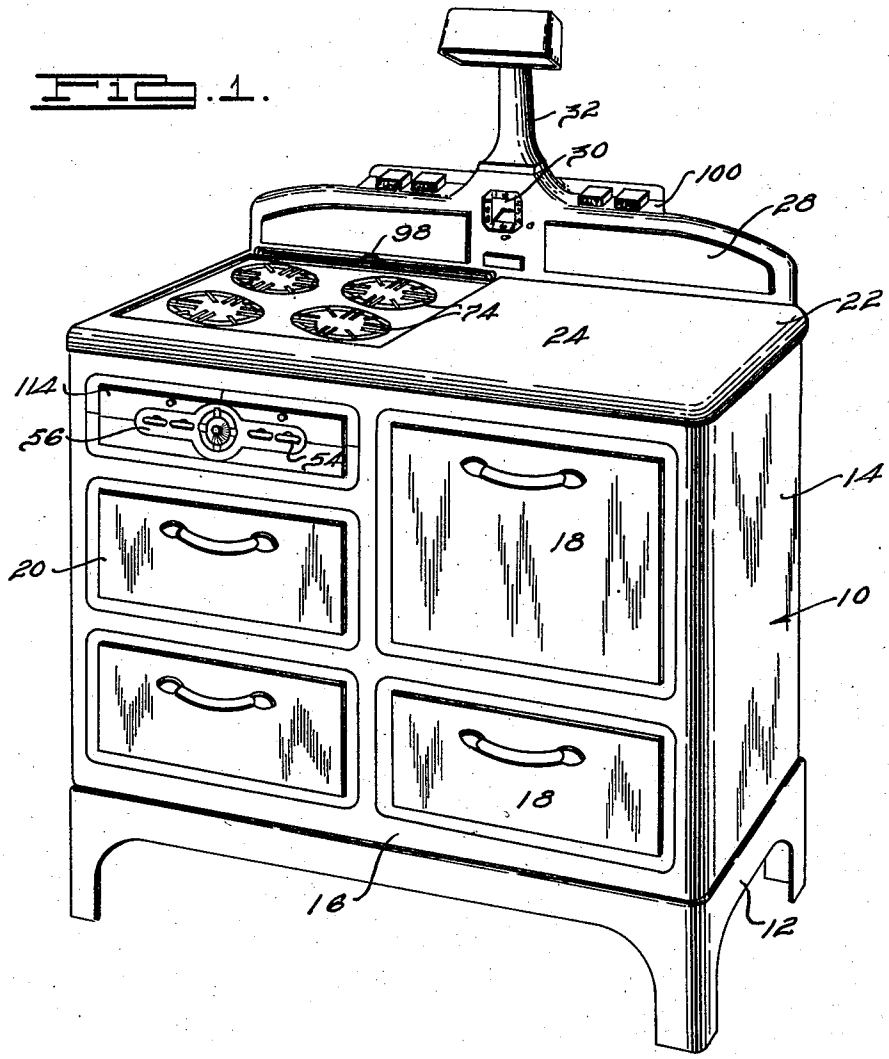
Nov. 21, 1939. A. G. SHERMAN 2,180,645

STOVE

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Fig. 1.



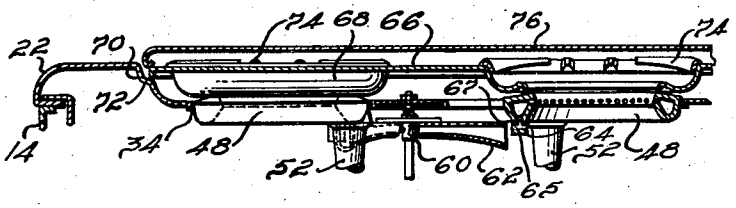


Fig. 4.

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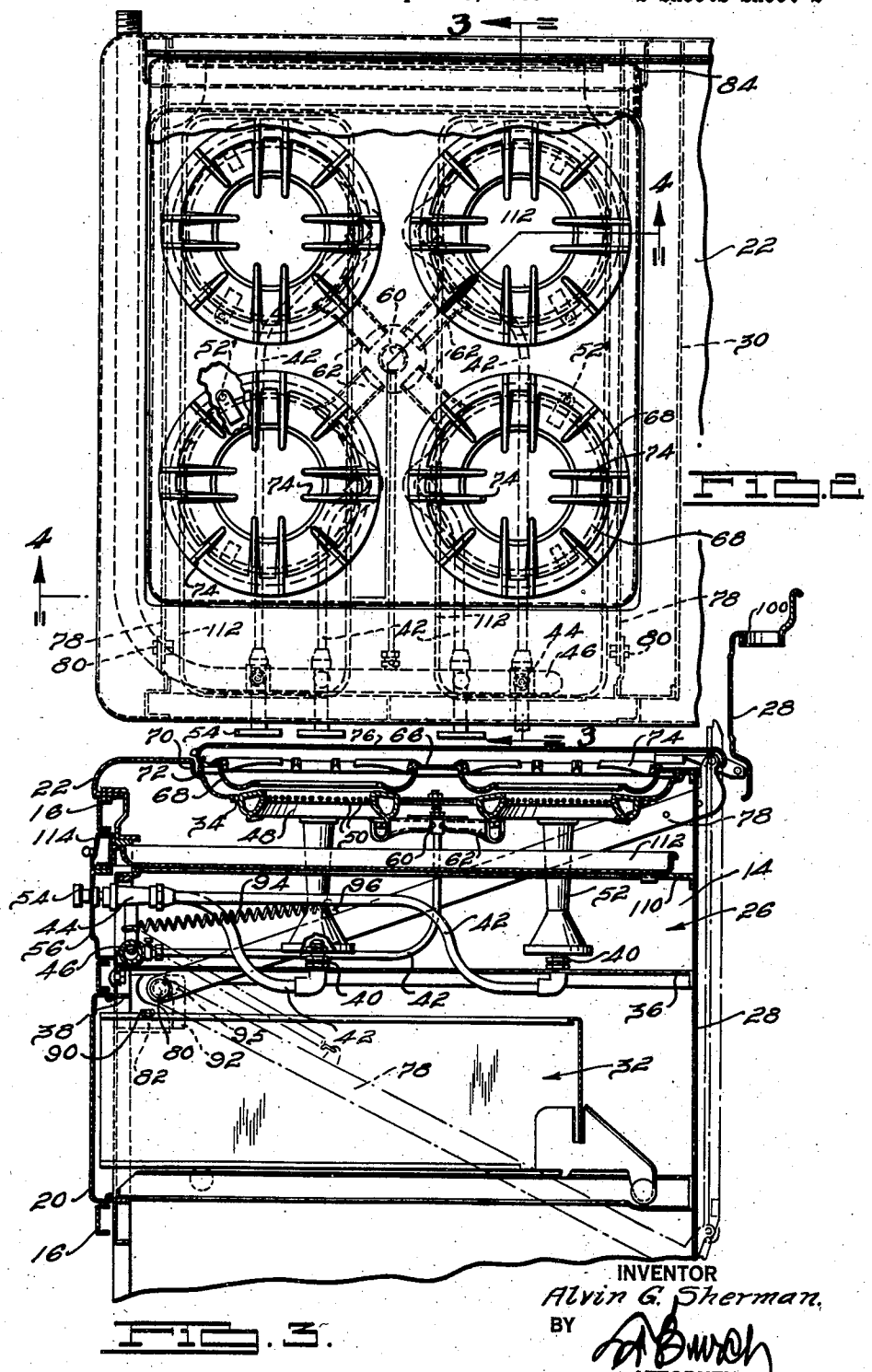


FIG. 3.

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STOVE

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Application April 3, 1935, Serial No. 14,390

2 Claims. (Cl. 126—214)

This invention relates to stoves and particularly to cabinet and burner box construction for domestic ranges.

It is an object of the invention to provide a novel construction and arrangement of the parts of a stove cabinet and of the burner box so as to provide a stove which is more attractive in appearance, which is simple in design and the parts of which are so designed and arranged as to provide a stove which is extremely useful and which may be kept in a clean and sanitary condition with a minimum of effort.

The invention has been illustrated in connection with a stove cabinet comprising a structural framework to which finished panels are exteriorly secured. The stove is provided with an oven compartment and a burner compartment arranged side by side, and a panel is provided for the upper surface of the stove to form a table top surface above the oven compartment and which panel is provided with a plurality of burner openings above the burner compartment and is otherwise adapted to conceal the feed pipe, conduits and valves within the burner compartment. A backguard is secured to the rear of the cabinet and is provided with shelf space for condiment holders and which is designed to support a clock or oven control and a lamp for the stove. Forwardly of the backguard and to the rear of the burner compartment there is provided an elongated slot through which a closure for the burner box is movable for concealing the same when it is desired to use the burners, and which closure, when closed, is adapted to form a continuation of the table top surface above the oven compartment. The feed pipe and conduits for conducting the gas to the burners are disposed within the burner compartment and are provided with exterior operating members for the valves which are collected or grouped at the front of the burner box to form an attractive design. The burners are disposed in the burner openings provided in the top panel and are provided with vertically extending mixer tubes which are associated with gas jets mounted upon a transverse member within the burner compartment, and a tray is provided above the burners for concealing the body thereof and for supporting individual grates for each of the burners.

For a better understanding of the invention and the advantages thereof, reference may be had to the following specification taken in connection with the accompanying drawings of which there are two sheets and in which;

Fig. 1 is a perspective view of a stove cabinet embodying the invention;

Fig. 2 is a plan view of the burner box compartment, certain of the normally concealed parts being illustrated in dotted lines;

Fig. 3 is a vertical sectional view through the burner box taken in the plane along the lines 3—3 of Fig. 2; and

Fig. 4 is a vertical sectional view of the burner box taken along the line 4—4 of Fig. 2.

Referring now particularly to Fig. 1 of the drawings, there is illustrated in perspective a stove cabinet having a body portion 10 suitably mounted upon a base 12. The body of the stove cabinet comprises a structural framework to which the exterior side and front panels 14 and 16 are secured, the front panel 16 being provided with a number of openings for providing access to the various compartments of the stove and which openings are provided with suitable doors 18 for closing the front of the compartment, the doors being provided with finished panel surfaces 20 which are substantially flush with the surface of the front panel 16. The top of the stove cabinet is covered by the top panel 22 which is adapted to provide a table top 24 above the oven compartment and which top panel 22 extends over the entire upper surface of the stove and around the portion above the burner box compartment 26. Along the rear edge of the upper panel 22 there is provided an upstanding backguard 28 which is adapted to support and house a clock mechanism 30 and to support a lamp 32.

The burner box compartment 26 is defined by the left-hand side wall panel 14, a back panel 28, the front panel 16 and a side wall 30 of the oven compartment. A drawer 32 is provided in the stove cabinet below the burner compartment. The top panel 22 is formed so that that portion overlying the burner compartment is provided with a plurality of burner openings 34. It will be noted that the burner openings 34 are provided in a portion of the panel 22 which is disposed at a lower elevation than the main portion of the panel 22 and that the portion with the burner openings forms a recess within the panel 22.

Within the burner compartment 26 there is provided a transverse supporting member 36 secured at its forward end to a horizontal frame member 38 and at its other end to the back wall panel 28. This supporting member provides a support for a plurality of vertically extending jets or nozzles 40 which are connected by means of flexible tubing 42 to the valves 44 which in

turn are connected to a manifold 46 extending across the burner compartment 26 at the front thereof. Within each of the burner openings 34 there is adapted to be placed a burner 48 having an annular body with a central opening and a series of inwardly directed flame ports 50 adjacent the central opening of the burners. The burner body 48 is provided with a plurality of radially extending lugs 52' which are adapted to seat upon the portion of the panel 22 about the openings 34 for supporting the burners. Each of the burners 48 is provided with a vertically extending mixer tube 52, the lower end of which is enlarged and provided with a valved air inlet which is associated with the upwardly extending jets or nozzles supported by the member 36. Each of the valves 44 is provided with an individual operating member 54 disposed externally of the stove cabinet and forwardly of a design panel 56 carried by the front panel 16 of the stove.

A pilot 60 is mounted within the burner compartment 26 below the panel 22 and is connected by a conduit 42 to the manifold 46. Between the pilot 60 and each of the burners 48, there is disposed a flash-back tube 62, one end of which terminates adjacent the pilot 60 and the other end of which terminates on the under side of the burner 48 adjacent the central opening therein. Each of the burners is provided with a projection 64 adjacent the outer end of the tube 60, in which a transverse passageway 65 is provided and which passageway is connected by a passageway 67 to the interior of the burner 48. In operation, when the valve 44 is open, gas under pressure is supplied to the burner, part of which escapes through the flame ports 50 and the small part of which will be forced through the passageways 67 and 65 for the purpose of filling the tube 62 with a supply of gas which is ignited by the pilot 60. When the gas within the tube 62 is ignited, it flashes back out of the tube and ignites the gas issuing from the passageway 65 on the inner side thereof and also the gas issuing through the flame ports 50.

Within the recess provided in the upper panel 22 there is disposed a tray 66 which is provided with a plurality of bowl-shaped formations 68 in the center of each of which there is provided an opening which is adapted to substantially coincide with the opening provided in the body of the burner 48. The bowl-shaped formations 68 of the tray 66 are adapted to substantially cover the body of the burner 48, but leave exposed the flame supported by the burner 48. To prevent burning of the rim of the bowl-shaped formations surrounding the opening therein, the opening within the bowl-shaped formation may be slightly greater in diameter than that of the burner 48 so that the flame supported thereby will not come in direct contact with the tray, the surface of which is adapted to be finished by enameling or porcelaining. The bowl-shaped formations 68 in the tray 66 are adapted to provide a receptacle for catching material that may be dropped through the grate and to cover the body of the burners 48 in such a manner as to prevent the same from being exposed to whatever material might be dropped or spilled on the stove. The edge of the tray 66 is flanged downwardly at 70 and is adapted to seat upon a shoulder 72 formed in the surface of the panel 22. Individual grates 74 are provided and are seated upon the tray 66 above the bowl-shaped formations 68 thereof.

For covering the grate and burners, there is provided a closure member 76 having a handle 98 therefor. In one position closure 76 is adapted to overlie the recess within the panel 22 for enclosing the parts within the same and to provide a surface which is substantially a continuation of the table top surface 24 provided above the oven compartment. At each side of the rear end of this closure member a link or arm 78 is pivotally connected thereto and which link or arm is connected through a pin and slot connection to a bracket 82 secured to the frame of the stove within the burner compartment 26. Along the back of the burner compartment there is provided a slot 84 in the surface of the panel 22 and forwardly of the backguard 28 through which the closure 76 is movable. The bracket 82 affixed to the frame of the stove within the compartment 26 has adjustably secured thereto, by a bolt 90, a plate 92 in which there is provided a slot 95 in which a pin 80 carried by one end of the link 78 is disposed so that as the closure 76 is pivoted about its pivotal connection with the arm 78 and moved through the opening 84, the arm 78 may give sufficiently to facilitate the movement of the closure member 76. This pin and slot connection and adjustable connection between the brackets 82 and the plate 92 also provides a means whereby an adjustment may be made to compensate for variations in dimensions and location of the parts resulting from manufacturing and assembling. A spring 94 is connected at one end to the frame of the stove and at the other end to a hook 96 carried by the arm 78 and is operable for counterbalancing the weight of the closure member. The closure member 76 and arm 78 are shown in dotted lines in the position they are placed when the stove is being used.

The backguard 28 is provided on each side of the center thereof with a horizontally disposed surface or shelf 100 which, as illustrated, is adapted to be used as a shelf for receptacles for holding condiments such as are commonly used in preparing or seasoning foods while cooking the same. As illustrated, the backguard 28 comprises a stamping in which the shelf portions 100 are flanges thereon. The shelves 100 may be provided with a plurality of openings for accommodating a portion of the body of the condiment receptacles to prevent the same from being accidentally dislodged from the shelf.

Within the burner compartment there is provided a plurality of members 110, suitably secured to the side walls of the stove for supporting a plurality of drip pans 112, each of which is adapted to underlie a pair of burners and particularly the central opening in said burners. The drip pans are spaced from each other to provide a clearance for the mixing tubes 52 so that the burners may be removed from the stove without taking out the drip pans. At the front end thereof the drip pans are provided with shields 114, each of which is complementary to the shield of the other drip pan and which shield, together with the panel 56, is adapted to form a design appearance similar to that of one of the doors of the oven or drawer compartment. Flash tubes 62, and the pilot burner 60 are assembled together as a unit and dependingly secured, in any suitable manner, to the depressed portion of the panel 22.

While the invention has been described with some detail, it is to be understood that the description is for the purposes of illustration only and is not definitive of the limits of the inventive

idea. The right is reserved to make such changes in the details of construction and arrangement of parts as will fall within the purview of the attached claims.

I claim:

1. In a stove, a burner box, a top panel having a depressed portion over said burner box, burners in said burner box, and a second panel positioned within the depressed portion of the top panel and lying beneath the upper level of said top panel but above said burners, said second panel having annular troughs formed above each burner, each of said panels being provided with an aperture above each burner, said burners being ring-shaped and having inwardly directed flame ports which project a flame through the apertures in said panels and clear of the edges thereof.

2. In a stove, a burner box, a top panel having a depressed portion over said burner box, burners in said burner box, and a second panel positioned within the depressed portion of the top panel and lying beneath the upper level of said top panel but above said burners, each of said panels being provided with an aperture above each burner, said burners having apertured portions, and said second panel having annular troughs formed around said apertures and having sloping portions surrounding said burners to direct spillage through said apertures.

ALVIN G. SHERMAN.