Oct. 26, 1943. L. J. SMALLEN 2,332,760

COOKING RANGE CONSTRUCTION

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Fig. 1.

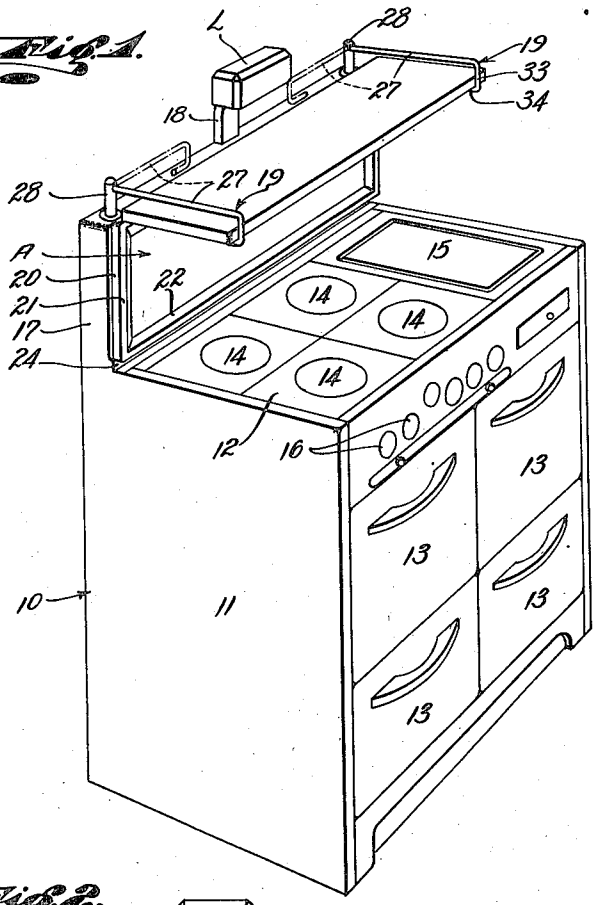


Fig. 2.

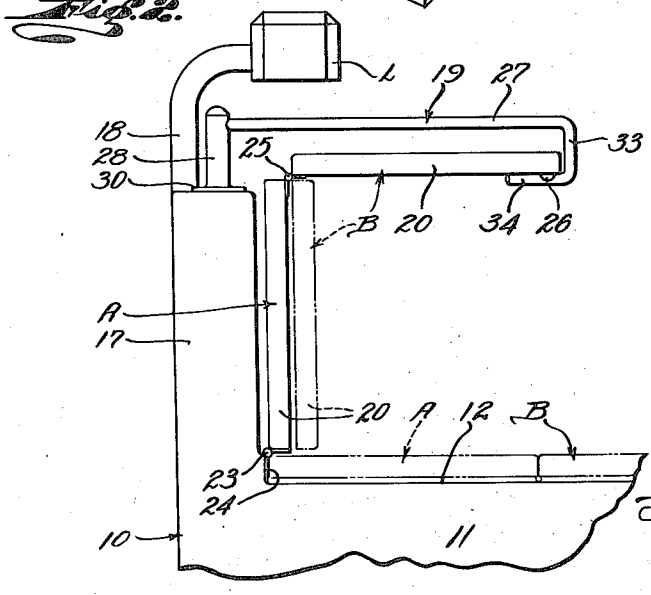
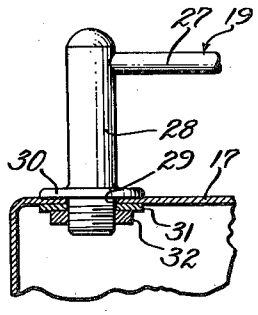


Fig. 3.



Inventor
LOUIS J. SMALLEN
By
His Attorney

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Fig. 4.

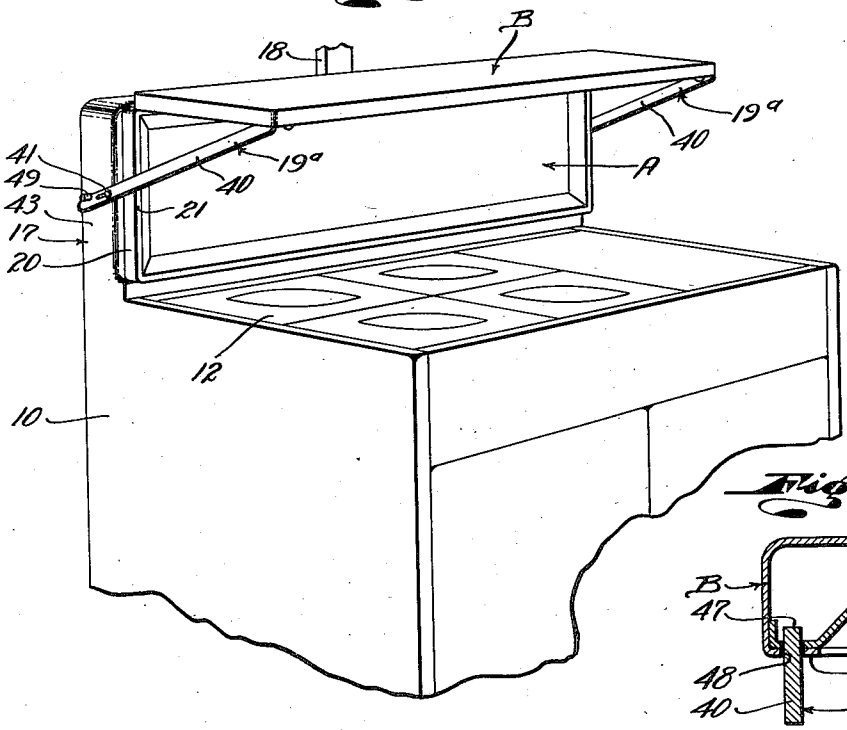


Fig. 7.

Fig. 5.

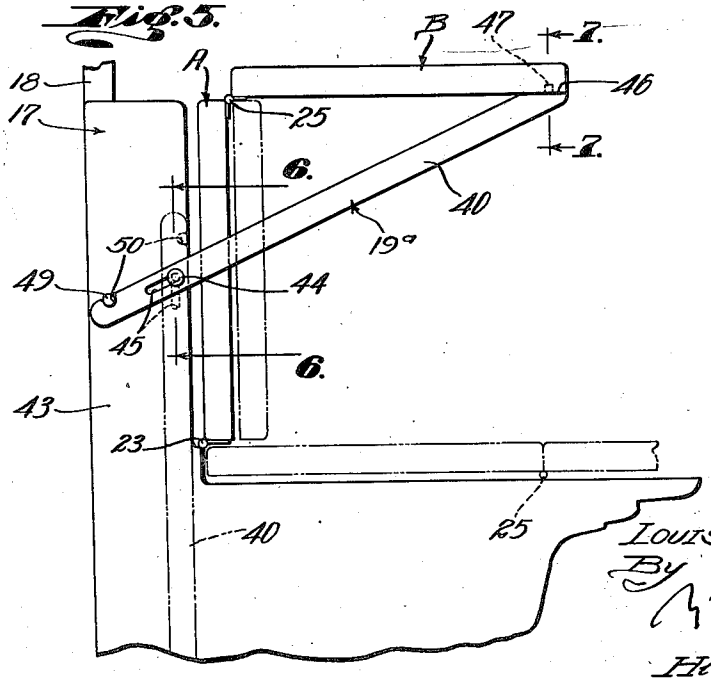
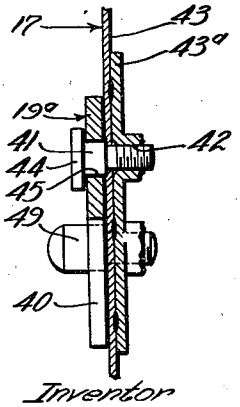


Fig. 6.



Inventor
LOUIS J. SMALLEN
By
His Attorney

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UNITED STATES PATENT OFFICE

2,332,760

COOKING RANGE CONSTRUCTION

Louis J. Smallen, Los Angeles, Calif.

Application December 21, 1940, Serial No. 371,064

10 Claims. (Cl. 126—214)

This invention relates to cooking stoves or cooking ranges of the console type having retractible covers or tops. A general object of the invention is to provide a cooking range of this class embodying a practical and effective cover or top useful both as a cover for the upper side of the range and as an elevated utility shelf for pans, utensils, etc.

Another object of this invention is to provide a cooking range embodying a sectional foldable top adapted to cover the top burners and the other elements at the upper side of the range and adapted to be readily converted into a convenient shelf above and at the rear of the top burners, etc., when raised and swung back to expose the burners for use.

Another object of this invention is to provide a cooking range of the character referred to embodying simple yet very effective means for maintaining the foldable range top in the position or condition where it constitutes a convenient shelf for pans, utensils, condiments, etc.

Another object of this invention is to provide a cooking range construction of the character mentioned in which the means for holding the top in the position where it constitutes a shelf is easily and quickly manipulated or adjusted to dependably support the top in that condition and may be quickly released to allow the top to be either folded back to its fully retracted position or to be swung down to its closed position where it covers the upper side of the range.

Another object of this invention is to provide a range construction of the character referred tc in which the means for supporting the top in the position where it forms a shelf is remote from the burners and other elements at the upper side of the range so that it does not interfere with free use of the burners, etc.

A further object of this invention is to provide a construction of the character referred to which is simple and inexpensive and readily embodied in ranges of various sizes, designs, etc.

The various objects and features of my invention will be fully understood from the following detailed description of typical preferred forms and applications of the invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a perspective view of a cooking range embodying one form of construction of the invention, showing the top arranged and supported where it forms a shelf. Fig. 2 is an enlarged fragmentary side elevation of the structure shown in Fig. 1 with full lines illustrating the cover in the position where it forms a shelf, with broken lines illustrating the closed position of the top and with broken lines illustrating the fully retracted position of the front top section. Fig. 3 is an enlarged fragmentary vertical detailed sectional view illustrating one of the mountings for the top supporting members of the structure shown in Fig. 1. Fig. 4 is a fragmentary perspective view of a cooking range embodying another form of construction of the invention showing the top in the position where it forms a shelf. Fig. 5 is an enlarged fragmentary end view of the construction shown in Fig. 4 with broken lines illustrating the closed position of the top and the fully retracted position of the top. Fig. 6 is an enlarged fragmentary vertical detailed sectional view taken as indicated by line 6—6 on Fig. 5 and Fig. 7 is an enlarged fragmentary vertical detailed sectional view taken substantially as indicated by line 7—7 on Fig. 5.

The features of the present invention may be embodied in fluid fuel cooking ranges, electric cooking ranges, solid fuel cooking ranges and in ranges varying greatly in size, style, etc. In the drawings I have illustrated the invention embodied in a typical form of fluid fuel range of the console type, it being understood that the invention is not to be construed as limited or restricted to the specific forms or applications of the invention herein disclosed. Where I herein employ the term "burners" this is to be construed as meaning electric heating elements as well as fluid fuel burners.

The cooking range illustrated in the drawings comprises a generally rectangular range body 10 having substantially vertical sides 11 and a generally horizontal top or upper side 12. The range front has a number of doors 13 for the oven, broiler, storage compartment, etc. The top burners 14, the griddle 15, the oven burners, etc., are controlled by handles 16 accessible at the front of the range body 10. A guard rail 17 projects upwardly along the upper rear edge of the body 10. In the particular case shown the rail 17 extends throughout the length of the range body 10 having its ends at the range body sides 11. The rail 17 may be employed to support a lamp L. A post 18 may project upwardly from the top of the rail 17 to support the lamp L. The lamp L is arranged to direct its light downwardly and forwardly across the upper side of the range.

The construction provided by this invention and illustrated in Figs. 1, 2 and 3 may be said to comprise generally a retractible top for the range body 10 embodying hingedly connected

sections A and B, and releasable means 19 for maintaining the section B in a position where it forms a convenient shelf when the top is raised or retracted.

The range top embodied in the invention is a generally rectangular structure divided longitudinally into the two sections A and B so that it may be more readily manipulated and so that it will not interfere with the lamp L and other objects and equipment at the rear of the range when opened. In the particular construction illustrated the hinged and foldable top is longitudinally split or divided midway between its front and rear edges so that its sections A and B are of equal width, it being understood that the invention is not restricted to this particular relationship. The top sections A and B are generally flat members and may be finished as selected. It is desirable to provide the top sections A and B with marginal reenforcements to strengthen the sections and to prevent them from buckling. In the case illustrated the top sections A and B have downturned rims 20 and inturned flanges 21 on the rims. Finishing members or moldings 22 may slope upwardly and inwardly from the flanges 21 to the under sides of the sections A and B.

The range top is hinged to the body 10 and its sections A and B are hinged one to the other so that it may be readily swung between the open and closed position and retracted and extended at will. Spaced hinges 23 secure the rear edge portion of the section A to the body 10. The hinges 23 may be secured to the rear rim 20 of the rear top section A and may be mounted on a generally vertical face 24 of the range body 10 adjacent the base of the rail 17. The hinges 23 are such that the section A may be swung between a substantially horizontal closed position and a substantially vertical raised position at or adjacent the front face of the rear rail 17. Similar hinges 25 secure the rear edge of the front section B to the forward edge of the rear section A. The hinges 25 may be attached to the flanges 20 which extend along the adjacent edges of the sections A and B. It is preferred to employ spaced hinges 25 so that slots or spaces are left between the adjacent edges of the sections A and B for the upward escape of steam, cooking vapors, etc., and for the admission of light to the upper part of the range when the sections A and B are in the positions illustrated in full lines in Figs. 1 and 2. It will be observed that the hinges 25 allow free hinging or swinging of the section B relative to the section A. Bumpers 26 of rubber, or the like, are provided on the under side of the front top section B to engage the upper side 12 of the range when the cover is in its closed position. The bumpers 26 may be attached to the forward flange 21 of the section B adjacent the forward corners of the section.

The means 19 is provided to hold or support the section B in a substantially horizontal position spaced above the upper side of the body 10 when the section A is raised and retracted to lie adjacent the forward face of the rail 17. The means 19 is carried by the guard rail 17, and comprises a swinging bracket or supporting member 27 mounted adjacent each end of the rail 17. The members 27 are carried by posts 28 projecting from the upper side of the rail 17. In the construction illustrated the posts 28 are turnable about generally vertical axes and the members 27 are fixed to the posts to turn therewith. The posts 28 pass through substantially vertical openings 29 in the upper wall of the rail 17 and have flanges 30 which rest on the upper surface of the rail. Plates or washers 31 are arranged on the posts 28 to engage against the under surface of the rail 17 and nuts 32 are threaded on the posts 28 to engage upwardly against the washers 31. The construction just described is such that the posts 28 are freely turnable and are held against displacement. It is preferred to mount the posts 28 immediately adjacent the opposite ends of the rail 17 as best illustrated in Fig. 1 of the drawings.

The shelf support or retaining members 27 may be elongate rod-like parts projecting substantially horizontally from the posts 28. The outer ends of the members 27 are provided with down turned parts 33 which in turn carry substantially horizontal inturned parts 34. The angular end parts 33 and 34 are rigid with the members 27 and in practice may be integral with the members.

When the top sections A and B are in their closed positions where they cover the upper side of the body 10 the members 27 may occupy the inactive or retracted positions illustrated in Fig. 1 where they are above the rail 17. When the members 27 are in these idle positions their major portions may extend substantially parallel with the face of the guard rail 17 and their inturned parts 34 may rest against or may lie adjacent the upper surface of the rail. The members 27 form effective trim parts or ornamental elements when in these idle retracted positions.

When the top burners 14, the griddle 15 and the other elements at the upper side of the range are not required for use the cover sections or top sections A and B may occupy the closed positions where they extend across the upper side of the range. When the cover or top is closed the members 27 may occupy the idle positions illustrated in broken lines in Fig. 1. In this connection it is to be observed that the members 27 are completely retracted and do not form hazardous or unsightly projections. When it is desired to employ the burners 14 or the griddle 15, the foldable top is opened or raised to swing the section A to a substantially vertical position at the front face of the guard rail 17 and the section B may be brought to a substantially horizontal position where it extends forwardly from the upper edge of the section A. Prior to or during this opening of the range top the members 27 are swung to extend from the ends of the guard rail 17 and when the section B is brought to the substantially horizontal elevated position the members 27 are swung inwardly so that their inturned parts 34 engage under the forward edge of the section B. The members 27 are readily swung to the forwardly projecting positions such as illustrated in full lines in Figs. 1 and 2 of the drawings where their parts 34 are in supporting engagement with the under side of the section B. In practice the members 27 may be positioned so that their parts 34 engage the front and end flanges 21 of the section B at the inner sides of the bumpers 26. The bumpers 26 may thus serve as stops or detents for preventing accidental displacement of the members 27 from the section B. With the members 27 in their active shelf supporting positions the down turned parts 33 may engage or may lie adjacent the forward edge of the section B to positively prevent forward displacement or movement of the sections A and B.

The section B when supported by the members

27 constitutes an effective readily accessible utility shelf for pans, utensils, vessels, etc. The shelf thus provided by the section B is spaced above the burners 14 where it does not interfere with the free use of the burners, etc., and yet is readily accessible. When the top sections A and B are retained in the positions illustrated in full lines in the drawings their under sides form effective splash plates protecting the face of the rail 17, the lamp L, etc., from the cooking steam, grease, etc. This makes frequent cleaning of the upper surfaces of the top sections A and B and the forward face of the rail 17 unnecessary and by occasionally wiping off or cleaning the under surfaces of the top section A and B the range is kept in a clean condition.

When it is desired to again cover the upper side of the range the members 27 are swung outwardly to free the sections A and B for downward swinging to their closed positions. It may be necessary to slightly raise the forward edge of the section B to disengage the inturned parts 34 from the bumpers 26 before swinging the members 27 outwardly. When the top sections A and B have been lowered to their closed positions the members 27 may be swung back to their idle positions above the guard rail 17. In the event that it is unnecessary or undesirable to employ the section B as a shelf when the top is to be raised the section B may be left in the substantially vertical position at the face of the raised section A as illustrated in broken lines in Fig. 2 so that the folded top forms a compact unit at the guard rail 17. The hinges 23 are commonly constructed to offer spring resistance or frictional resistance to retain the top in the compact folded position. The section B may be swung from this fully retracted position to its raised shelf position at any time.

The embodiment of the invention illustrated in Figs. 4 to 7, inclusive, of the drawings comprises the top sections A and B and means 19a for releasably maintaining the section B in an elevated substantially horizontal position where it forms a shelf. The range body 10, the guard rail 17, the top sections A and B and other elements of the range structure may be the same as in Figs. 1, 2 and 3 and corresponding reference numerals have been applied to these elements and their corresponding parts.

The optional and releasable shelf providing or shelf supporting means 19a comprises supporting members 40 at the ends of the rail 17 pivotable about generally horizontal axes between retracted or idle positions and active positions where they serve to support the section B in its "shelf" position. The members 40 are elongate parts and may be rod or lever-like elements of rectangular transverse cross section. In practice the members 40 are arranged with their broad inner sides lying against or adjacent the end faces of the guard rail 17.

The means for mounting or supporting the members 40 for movement between their idle and active positions comprise studs or pins 41 projecting horizontally from the opposite ends of the guard rail 17. It is preferred to position the pins 41 adjacent the front of the rail 17 and substantially midway between the upper and lower edges of the rail but this positioning of the studs may be varied if desired. In the drawings I have shown the pins 41 provided with reduced inner parts threaded in openings 42 in the end walls 43 of the guard rail 17. The walls 43 are preferably reenforced by plates 43a secured to their inner sides by welding or other appropriate means. The pin receiving openings 42 pass through the plates 43a as well as the wall 43. The parts of the openings 42 in the plates 43a may be formed by a spreading or punching process which gives them substantial length so that the pins 41 have extensive threaded engagement in the plates 43a. Heads 44 are formed or provided on the outer ends of the pins 41. Longitudinally elongated openings or slots 45 are provided in the members 40 to receive the pins 41. The slots 45 are spaced some distance from what I will term the inner ends of the members 40. The slots 45 receive the pins 41 with suitable clearance to allow the members 40 to freely pivot on the pins and to have limited longitudinal movement. The heads 44 cooperating with the outer sides of the members 40 retain the members in cooperation with the pins 41 and prevent displacement of the members.

The forward or outer ends of the members 40 are formed to have releasable supporting and retaining cooperation with the section B when the latter is raised to its elevated substantially horizontal shelf position. The forward ends 46 of the members 40 are bevelled off or shaped to be substantially horizontal when the members slope upwardly and forwardly as illustrated in full lines in Figs. 4 and 5. The ends 46 of the members 40 are adapted to have supporting engagement with the flange 21 at the forward corner portions of the section B. Lugs 47 project from the ends 46 and are adapted to be received in openings 48 formed in the flange 21 and in the molding structure 22 of the section B. The openings 48 are preferably provided in the flange 21 and molding structure 22 adjacent the forward corners of the section B. The cooperation of the ends 46 with the flange 21 supports the section B in its horizontal elevated position and the cooperation of the lugs 47 and openings 48 prevents the sections A and B from swinging downwardly and forwardly and prevents accidental displacement of the members 40 from the section B.

Stop means or latch means are provided to releasably retain the pivotable and shiftable members 40 in their active positions where they support the section B to act as a utility shelf. These stop means or latch means comprise pins 49 projecting from the ends of the guard rail 17 and notches 50 in the forward or upper edges of the members 40 for receiving the pins 49. When a supporting member 40 is to be moved from its vertical inactive position to its forwardly projecting active position it is swung forwardly and upwardly and during this movement it is bodily shifted in a longitudinal direction until the upper or rear end of the slot 45 engages the pin 41. This forward or outward longitudinal movement of the member 40 allows the outer end of the member to clear the latch pin 49. When the member 40 has been brought to its upwardly and forwardly projecting active position it is shifted rearwardly and manipulated to have its notch 50 receive the pin 49. The engagement of the pin 49 with the notch 50 prevents downward swinging of the main forward portion of the member 40 and holds the member 40 against longitudinal movement. In practice the forward end wall of the slot 45 may cooperate with the pin 41 when the notch 50 is in engagement with the pin 49 to assist in preventing endwise movement of the member 40. It is to be understood that both members 40 have a stop means or latch means 49—50.

It is believed that the use or operation of the range construction of Figs. 5 to 7, inclusive, will

be understood from the foregoing detailed description. When the top sections A and B are in their closed positions the members 40 may hang at the ends of the rail 17. The hanging or depending members 40 are inconspicuous and do not constitute hazardous or interfering projections. When the range top is raised as above described the support members 40 are swung upwardly and manipulated as described above to be latched in place by the pins 49 engaged in the notches 50. The lugs 47 are engaged in the openings 48 at this time so that the top section B is retained in its elevated horizontal position where it is supported by the members 40. The members 40 engaging under the two forward corners of the section B dependably support the section where it forms a convenient shelf. The lugs 47 engaged in the openings 48 positively prevent forward or downward swinging of the top sections A and B. It is to be observed that the members 40 are entirely clear of the burner portions of the range when in supporting engagement with the section B. The members 40 are easily disengaged from the section B and manipulated to free the notches 50 from the pins 49 so that they may be returned to their idle positions when the cover or top is to be closed. It is to be understood that the section B may be swung to a substantially vertical retracted position adjacent the face of the substantially vertical raised section A when the shelf is not desired or required. The supporting means 19a does not interfere with the free manipulation or opening and closing of the range top.

Having described only typical preferred forms and applications of my invention, I do not wish to be limited to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art or fall within the scope of the following claims.

Having described my invention, I claim:

1. In a cooking range having a range body with a projecting rear rail, the combination of a top for the body including a rear section hinged to the body and a front section hinged to the rear section, and a member pivoted on the rail movable to a position where it retains the front section in a substantially horizontal position directly above the body projecting forwardly from the rear section to form a shelf when the rear section is raised.

2. In a cooking range having a range body with a projecting rear rail, the combination of a top for the body including a rear section hinged to the body and a front section hinged to the rear section, and members pivoted on the rear rail to be movable to positions where they project forwardly from the rail to support the forward corners of the front section when said section is in a raised generally horizontal position projecting forwardly from the rear section directly over the body.

3. In a cooking range having a range body with a projecting rear rail, the combination of a top for the body including a rear section hinged to the body and a front section hinged to the rear section, and members pivoted on the upper side of the rear rail to be movable to positions where they project forwardly from the rail to support the forward corners of the front section when said section is in a raised generally horizontal position projecting forwardly from the rear section directly over the body.

4. In a cooking range having a range body with a projecting rear rail, the combination of a top for the body including a rear section hinged to the body and a front section hinged to the rear section, and members pivoted on the opposite ends of the rear rail to be movable to positions where they project forwardly from the rail to support the forward corners of the front section when said section is in a raised generally horizontal position projecting forward from the rear section.

5. In a cooking range having an upwardly projecting rear guard rail, a rear top section hinged to the range to be swingable between a closed position and an open substantially vertical position at the face of the guard rail, a front top section hinged to the rear top section to be movable between a substantially horizontal closed position and a substantially horizontal raised position directly over the body projecting forwardly from the rear section when the latter is in its open position, and a member pivoted on an end of the rail adapted to be moved between an inactive position and an active position where it projects upwardly and forwardly to retain the front section in said raised position to form a shelf.

6. In a cooking range having an upwardly projecting rear guard rail, a rear top section hinged to the range to be swingable between a closed position and an open substantially vertical position at the face of the guard rail, a front top section hinged to the rear top section to be movable between a substantially horizontal closed position and a substantially horizontal raised position projecting forwardly from the rear section when the latter is in its open position, members pivotally and shiftably mounted on the ends of the rail to be swingable between inactive positions and active upwardly and forwardly projecting positions where they are operable to retain the front section in said raised position, and means engaged by the members for holding the members in said active positions, the members being releasable from said means by bodily shifting of the members.

7. In a cooking range having an upwardly projecting rear guard rail, a rear top section hinged to the range to be swingable between a closed position and an open substantially vertical position at the face of the guard rail, a front top section hinged to the rear top section to be movable between a substantially horizontal closed position and a substantially horizontal raised position projecting forwardly from the rear section when the latter is in its open position, members pivotally and shiftably mounted on the ends of the rail to be swingable between inactive positions and active upwardly and forwardly projecting positions where they are operable to retain the front section in said raised position, the forward part of the front section being provided with openings, lugs on the members for engaging in said openings, and means engaged by the members for holding the members in said active positions, the members being releasable from said means by bodily shifting of the members.

8. In a cooking range having an upwardly projecting rear guard rail, a rear top section hinged to the range to be swingable between a closed position and an open substantially vertical position at the face of the guard rail, a front top section hinged to the rear top section to be movable between a substantially horizontal closed position and a substantially horizontal raised

position projecting forwardly from the rear section when the latter is in its open position, and a member mounted on the rail to be movable about a substantially vertical axis between a retracted position and a forwardly projecting position where it is operable to retain the front section in said raised position.

9. In a cooking range having an upwardly projecting rear guard rail, a rear top section hinged to the range to be swingable between a closed position and an open substantially vertical position at the face of the guard rail, a front top section hinged to the rear top section to be movable between a substantially horizontal closed position and a substantially horizontal raised position projecting forwardly from the rear section when the latter is in its open position, members supported on the rail to be swingable about vertical axes between retracted positions and active forwardly projecting positions, and parts on the members for engaging under the forward corners of the raised front section for retaining the section in the raised position.

10. In combination with a cooking range body having a rear portion, a rear top section hinged to the body to be movable between a closed position and a raised position, a front top section hinged to the rear section to be movable between a closed position and a raised generally horizontal position projecting forwardly from the raised rear section, and a support pivoted on the body to be movable between an idle position and a position where it projects upwardly and forwardly from the rear portion of the body to the forward portion of the front section to retain the front section in said raised position.

LOUIS J. SMALLEN.