Jan. 11, 1927. 1,614,167

G. D. WILKINSON

BROILER OVEN

Filed Nov. 1, 1926 3 Sheets-Sheet 1

Fig. 1.

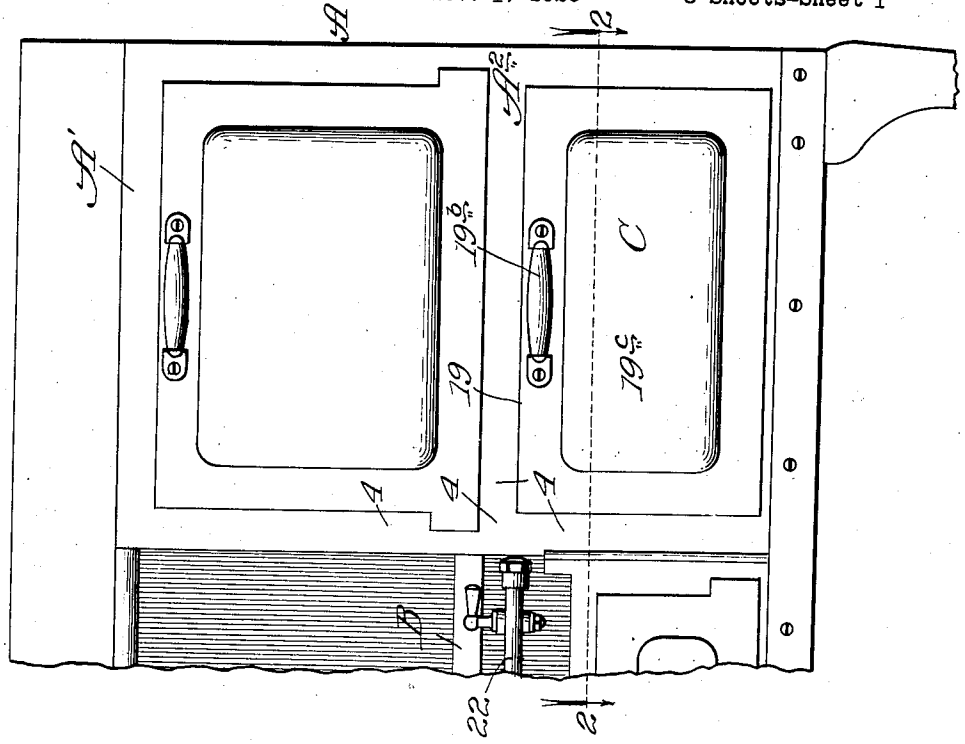
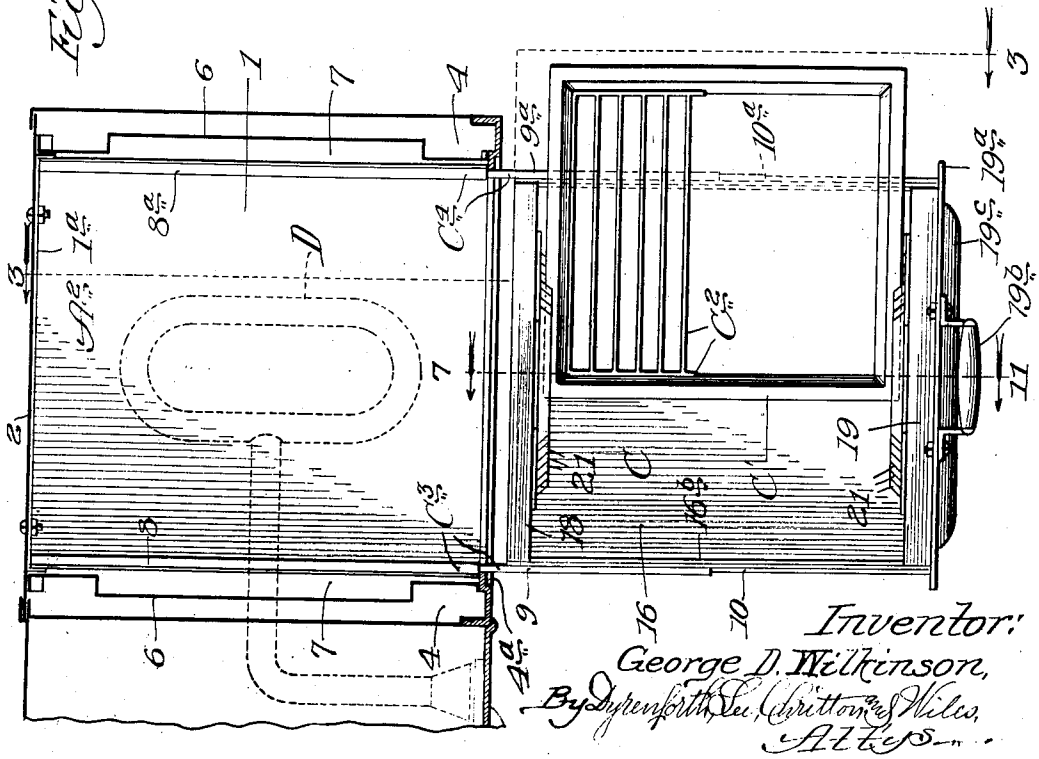


Fig. 2.



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Filed Nov. 1, 1926 3 Sheets-Sheet 2

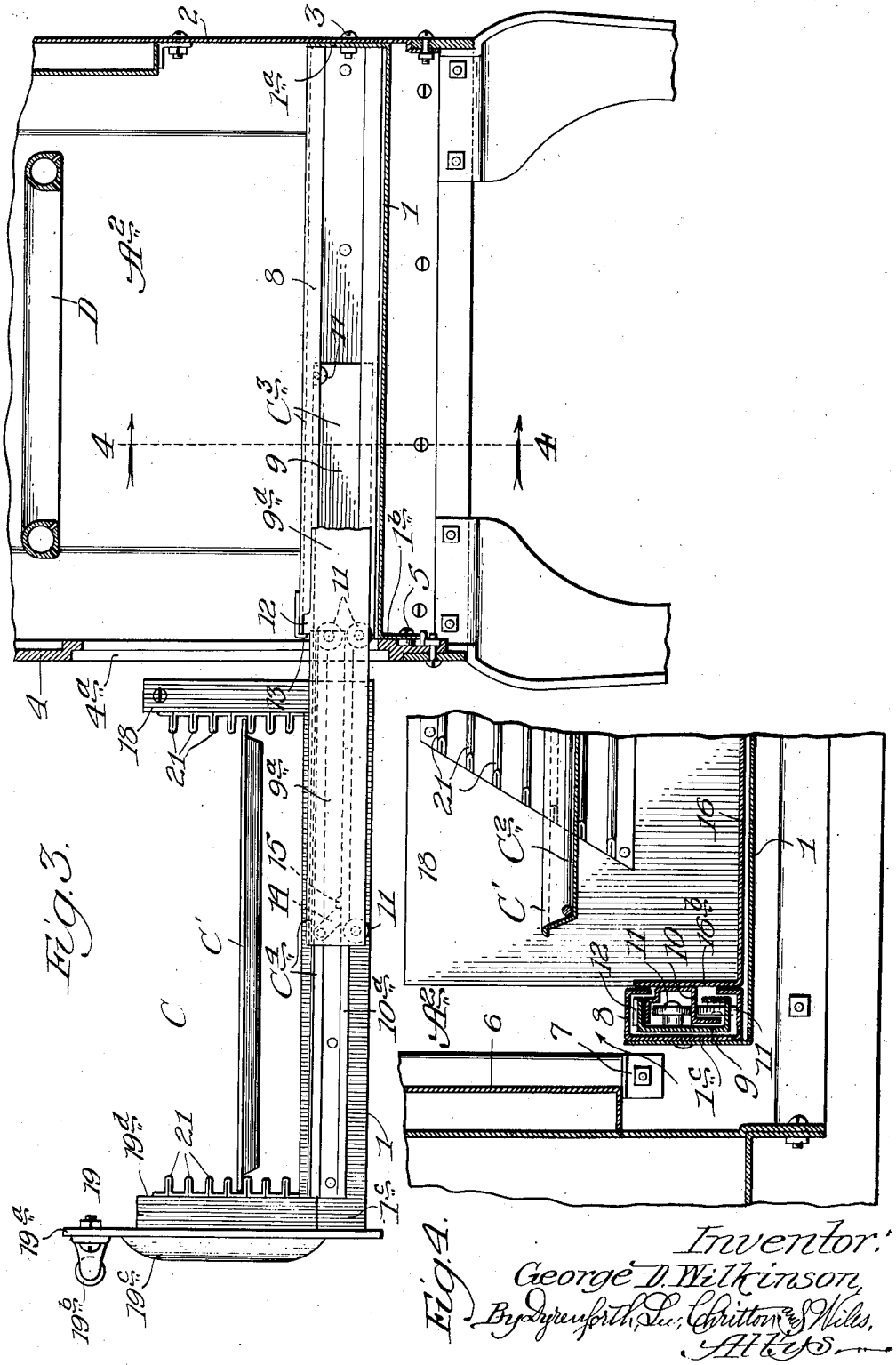


Fig. 3.

Fig. 4.

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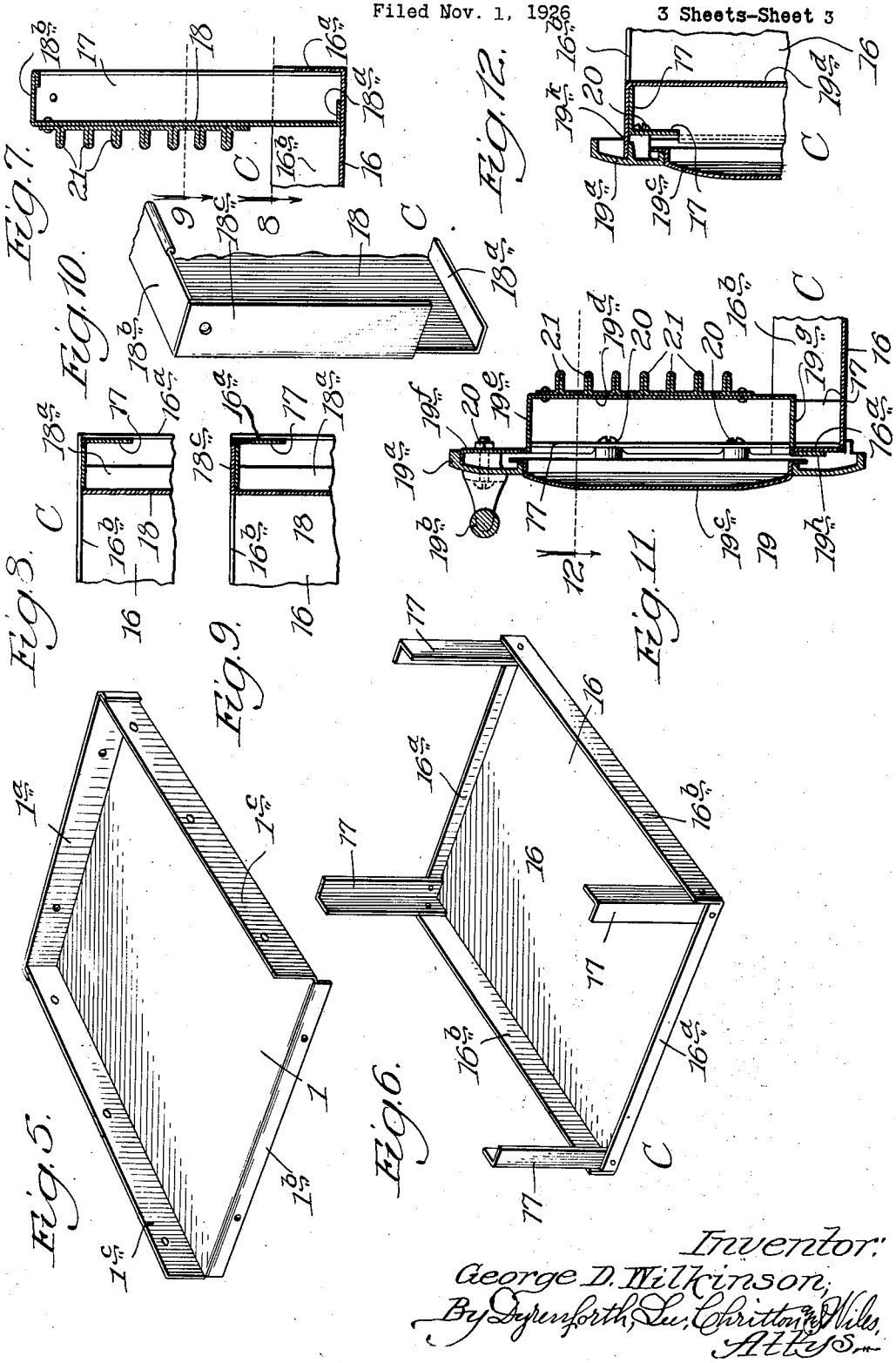


Fig. 7.
Fig. 10.
Fig. 12.
Fig. 8.
Fig. 9.
Fig. 11.
Fig. 5.
Fig. 6.

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UNITED STATES PATENT OFFICE.

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BROILER OVEN.

Application filed November 1, 1926. Serial No. 145,494.

The present invention pertains especially to a broiler oven for a gas range, or other range; and the primary object is to provide an improved broiler oven of simple and staunch construction and of improved arrangement.

The invention is illustrated in the accompanying drawings in its preferred embodiment as applied to a gas range. It will be understood, however, that the broiler burner may be a gas burner, an oil burner, or an electric burner, or heating element.

In accordance with the present invention, the broiler compartment of the range preferably is located beneath the baking oven, the baking compartment and broiler compartment forming an oven unit; and the broiler compartment is equipped with guides, with which are connected extension slides which carry a drawer whose front end constitutes a closure for the broiler compartment of the range. The drawer is completely withdrawable from the broiler compartment and is equipped with means for supporting a broiler-pan at any desired height. Preferably, the ends of the drawer are equipped at their inner surfaces with transverse guides of graduated length, the broiler-pan being slidable transversely with relation to the drawer to enable it to be disengaged from one set of guides and entered into another set of guides.

In the drawings—

Fig. 1 represents a broken front elevational view of a gas range constructed in accordance with the invention; Fig. 2, a broken plan sectional view taken as indicated at line 2—2 of Fig. 1, showing the broiler-drawer withdrawn and the broiler-pan partially shifted in the supporting guides with which the drawer is equipped; Fig. 3, a broken vertical sectional view taken as indicated at line 3—3 of Fig. 2; Fig. 4, a broken vertical sectional view taken as indicated at line 4—4 of Fig. 3; Fig. 5, a front upper perspective view of the bottom of the broiler compartment; Fig. 6, a perspective view showing the bottom and corner posts of the broiler-drawer; Fig. 7, a broken vertical sectional view taken as indicated at line 7 of Fig. 2 and showing the construction at the rear end of the broiler-drawer; Figs. 8 and 9, broken horizontal sectional views taken as indicated at the corresponding lines of Fig. 7; Fig. 10, a broken perspective view of the sheet-metal member which forms the rear wall of the broiler-drawer; Fig. 11, a broken vertical sectional view taken as indicated at line 11 of Fig. 2 and showing the front end of the broiler-drawer; and Fig. 12, a broken horizontal sectional view taken as indicated at line 12 of Fig. 11.

In the construction illustrated, A designates an oven unit comprising an upper baking oven A′ and a lower broiler oven A^2; B designates the cooking top of the range; C designates the broiler-drawer with which the compartment A^2 is equipped; and D designates a broiler burner located in the upper portion of the broiler compartment A^2.

The withdrawable broiler-drawer C supports a removable broiler-pan C′ in which rests a grid C^2.

The broiler compartment A^2 of the range is equipped with a bottom member of the form shown in Fig. 5, which is designated 1. This member preferably is formed from sheet-metal and equipped with an upturned rear flange 1^a, a downturned front flange 1^b, and upturned lateral flanges 1^c. As shown in Fig. 3, the rear flange 1^a is secured to the rear wall 2 of the broiler compartment, as by means of stove bolts 3; and the front flange 1^b is secured to the oven-front 4, as by means of screws 5.

The broiler compartment is shown provided with lateral lining-panels 6. The arrangement is such as to leave between the lining-panels 6 and the lateral flanges 1^c spaces 7 through which air may enter the broiler compartment.

The broiler-drawer C is carried by extension slides C^3 and C^4, as will be understood from Figs. 2, 3 and 4.

While the extension slides may be of any desired construction, each extension slide preferably comprises three members. It will be understood that an extension slide is employed at each side of the lower portion of the broiler-drawer. The extension slide C^3, for example, comprises a rear guide 8 firmly secured to the inner surface of the corresponding lateral flange 1^c of the bottom of the broiler compartment; an intermediate traveling slide 9 telescopically received by the guide 8; and a front guide 10 firmly secured to one side of the lower portion of the broiler-drawer. Similarly, the extension slide C^4 comprises a rear guide

8[a]; an intermediate traveling slide 9[a]; and a front guide 10[a]. The general arrangement will be readily understood from Fig. 2; and the details will be understood from Figs. 3 and 4. The extension slides preferably are equipped with anti-friction rollers 11. The intermediate slides 9 and 9[a] are equipped with stops 12 adapted to engage stops 13 carried by the front ends of the guides 8; also, the front ends of the slides 9 and 9[a] are equipped with stop-pawls 14 adapted to engage stops 15 with which the guides 9[a] and 10[a] are equipped. The arrangement is such that the broiler-drawer C can be wholly withdrawn from the broiler compartment, the movement being limited, however, to prevent disengagement of the members of the extension slides.

The broiler-drawer C comprises, in the illustration given, a bottom 16 having upturned front and rear flanges 16[a] and upturned lateral flanges 16[b]; angle-form corner posts 17 rising from the corner portions of the bottom and secured to the flanges, as by means of spot-welding; a sheet-metal rear end wall 18 (Figs. 7–10) having rearwardly turned lower, upper and lateral flanges 18[a], 18[b] and 18[c], respectively, the lower end of the member 18 extending into the pan which the bottom 16 affords, the lateral flanges 18[c] embracing the rear corner posts 17, and the upper flange 18[b] covering the upper ends of said corner posts; and a front end 19 (Figs. 11 and 12) for the broiler-drawer, comprising a rectangular frame-member 19[a] equipped with a handle 19[b], an outer sheet-metal panel 19[c] whose outwardly bowed portion projects through the opening of the rectangular frame-member 19[a], and an inner lining-member 19[d], these parts being firmly secured together. As shown, the frame-member 19[a] is secured to the corner posts 17 by means of screws 20. The member 19[d] affords a plate which is disposed back of the corner posts 17. This plate is provided with a top flange 19[e] which extends over the upper ends of the posts and is provided with an extension 19[f] which is secured to the frame 19[a] by means of bolts 20. The plate 19[d] also has a lower flange 19[g] which extends between the posts and has a downturned extension 19[h] which engages the front flange 16[a] of the bottom of the broiler-drawer. Also, the plate 19[b] has lateral flanges 19[k] which embrace the outer sides of the corner posts, as shown in Fig. 12. The plate 19[d] is suitably notched at its lower corners to enable the parts to fit together. The rear plate 18 of the broiler-drawer also is notched at its lower corners, as shown in Fig. 10.

It will be understood that all of the parts of the broiler-drawer are firmly secured together.

The end members 18 and 19[d] of the broiler-drawer are equipped at their inner sides with horizontal guides 21, which, as appears from Fig. 4, are of graduated length. In the illustration given, seven guide-members are shown at each end of the drawer. Any two of these members will serve as a guide adapted to receive the flange of the broiler-pan C′. The shortest guide is at the top and the longest guide at the bottom. The result is that in entering the broiler-pan, its flange may be rested upon the projecting end portion of the lower members of the particular guides selected, the upper member being cut away, as it were, to permit this action. This arrangement of graduated guide-members enables the broiler-pan to be readily entered in any set of guides. Thus, when the broiling operation is being performed, the broiler-pan may be removed from one set of guides and readily adjusted in another set of guides to bring the broiler-pan closer, or farther away from, the broiler burner D, according to requirement.

It will be noted from Fig. 3 that the oven-front 4 is recessed, or rabbeted, as indicated at 4[a] at the margin of the door-opening to accommodate the frame 19[a] of the front end of the broiler-drawer when the drawer is in the closed position. It will be understood, therefore, that the front end of the broiler-drawer constitutes a closure for the broiler compartment.

It readily will be understood that when the drawer C is in the extended position shown in Fig. 3, the broiler-pan C′ may be moved transversely to withdraw it from one set of guides, and may be entered in another set of guides at the desired height. The meat to be broiled, for example, is deposited in the broiler-pan C′ upon the grid C[2] which rests in the pan. The pan is supported on a selected pair of guides, and the drawer is then shoved to closed position, bringing the broiler-pan to position beneath the broiler burner D. In the illustration given, the burner D is supplied with gas from the manifold 22 which extends across the front of the range below the cooking-top B. If it be desired to change the adjustment of the broiler-pan, this may be accomplished easily and with great facility by withdrawing the broiler-drawer from the broiler compartment, shifting the broiler-pan laterally in the drawer to withdraw it from one set of guides, and reinserting in another set of guides at the desired height.

The improved construction enables the drawer to be withdrawn from the broiler compartment to permit inspection of the meat being broiled. In adjusting the broiler-pan, the operator may take hold of both end-flanges and securely hold the pan while the adjustment is being effected.

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.

What I regard as new, and desire to secure by Letters Patent, is:

1. In combination with a broiler compartment of a range and a burner located in the upper portion of said compartment, a drawer equipped with slides mounted in guides with which the base portion of said broiler compartment is equipped, said drawer being withdrawable from the broiler compartment and having its front and rear ends equipped with a plurality of supports, and a broiler-pan adjustably mounted in said supports.

2. In combination with a broiler compartment of a range and a burner mounted in the upper portion of said compartment, a pair of guides mounted in the base portion of said compartment, a pair of extension slides mounted in said guides, a drawer fixedly secured to the front members of said extension slides, and a broiler-pan adjustably mounted in said drawer.

3. In combination with a broiler compartment of a range and a burner mounted in the upper portion of said compartment, a pair of guides mounted in the base portion of said compartment, a pair of extension slides mounted in said guides, a drawer fixedly secured to the front members of said extension slides, a plurality of pairs of transverse guide flanges mounted on the front and rear ends of said drawer, and a transversely shiftable broiler-pan adapted to be supported on any selected pair of said guides.

4. In combination with a broiler compartment of a gas range and a burner in the upper portion of said compartment, a pair of guides fixedly mounted in the base portion of said compartment, a pair of extension slides mounted in said guides, stops for limiting the forward movement of said slides, a broiler-drawer secured to the front members of the extension slides and withdrawable to a position in front of the broiler compartment, the front end of said drawer serving as a closure for the broiler compartment and being equipped with a handle through the medium of which the drawer may be operated, a plurality of pairs of transverse guides mounted on the front and rear ends of the broiler-drawer, and a transversely slidable broiler-pan adapted to be suported in any selected pair of guides.

5. In combination with a broiler compartment of a gas range a pair of guides fixedly mounted in the base portion of said compartment, extension slides connected with said guides, and a broiler-drawer fixedly secured to the front members of said extension slides, said broiler-drawer comprising a bottom wall, front and rear end walls, and relatively narrow side walls rising from the lateral edges of the bottom wall, the front members of said extension slide being secured to said side walls, and a plurality of pairs of guide-members projecting inwardly from said front and rear end walls and adapted to support a transversely sildable grid element at any desired height.

6. In combination with a broiler compartment of a range, said compartment being provided with an opening, a drawer slidable through said opening and completely withdrawable from said compartment, means for guiding and supporting said drawer, said means having members mounted in the base portion of the broiler chamber and having means for supporting the drawer in a completely withdrawn position and for limiting the forward movement of the drawer, the outer end of said drawer serving as a closure for said opening, a plurality of pairs of transverse supports mounted on the ends of said drawer above the plane of the supporting means of the drawer, and a transversely slidable grid element adapted to be supported on any selected pair of said supports.

7. In means of the character set forth, a broiler-drawer comprising bottom, front and rear ends, and relatively narrow side walls rising from said bottom, and a plurality of pairs of transverse guides projecting inwardly from the end walls of said drawer and adapted to support a transversely slidable grid element.

8. In means of the character set forth, a broiler-drawer having relatively high front and rear ends equipped at their inner sides with a plurality of transverse guides, and a laterally shiftable broiler-pan adapted to be supported in any selected pair of said guides.

9. In means of the character set forth, a broiler-drawer having front and rear ends equipped at their inner sides with a plurality of transverse guide-members of graduated length, said guide-members increasing in length from top to bottom.

10. In combination with a broiler compartment of a range, said compartment being provided with an opening, a broiler-drawer slidable through said opening and completely withdrawable from said compartment, said drawer comprising end members equipped with a plurality of transverse guide-members, the front end member being adapted to serve as a closure for said opening, and a transversely slidable grid element adapted to be supported on any selected pair of said guide-members.

11. In combination with a broiler compartment of a range, said compartment being provided with an opening, a broiler-drawer slidable through said opening and completely withdrawable from said compartment, said drawer comprising end mem-

bers equipped with a plurality of transverse guide-members increasing in length from top to bottom, the front end member being adapted to serve as a closure for said opening, and a transversely slidable grid element adapted to be supported on any selected pair of said guide-members.

12. In means of the character set forth, a broiler-drawer comprising a bottom member having posts rising from its corners, a rear end plate having flanges embracing the rear posts and equipped at its front surface with a plurality of transverse guide-members, an open rectangular frame secured to the front posts, a sheet-metal plate having a bowed portion projecting through the opening of said frame, a lining-member having flanges embracing the front posts, said lining-member being equipped at its rear surface with a plurality of transverse guide-members, and a transversely slidable grid-member adapted to be supported on any selected pair of said guide-members.

13. A broiler-drawer for the purpose set forth, comprising a base-portion equipped at its sides with guide-members, front and rear ends rising above said base-portion and equipped with a plurality of transverse guide-members, and a transversely shiftable grid-member adapted to be supported on any selected pair of said guide-members.

14. In a range, an oven-unit comprising an upper baking oven and a lower broiler compartment, a broiler burner located in the upper portion of said broiler compartment, fixed guides at the sides of the lower portion of the broiler compartment, a broiler-drawer having its base-portion equipped with extension slides engaging said fixed guides, and a broiler element adjustably mounted on said drawer.

15. In combination in a range, an oven-unit comprising an upper baking oven and a lower broiler compartment, a broiler burner in the upper portion of said broiler compartment, a bottom member for the broiler compartment secured to the front and rear walls of said compartment at the lower portion thereof and having upturned lateral flanges equipped with guides, extension slides connected with said guides, and a broiler-drawer mounted on said extension slides and having a front end serving as a closure for the opening of the broiler compartment.

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