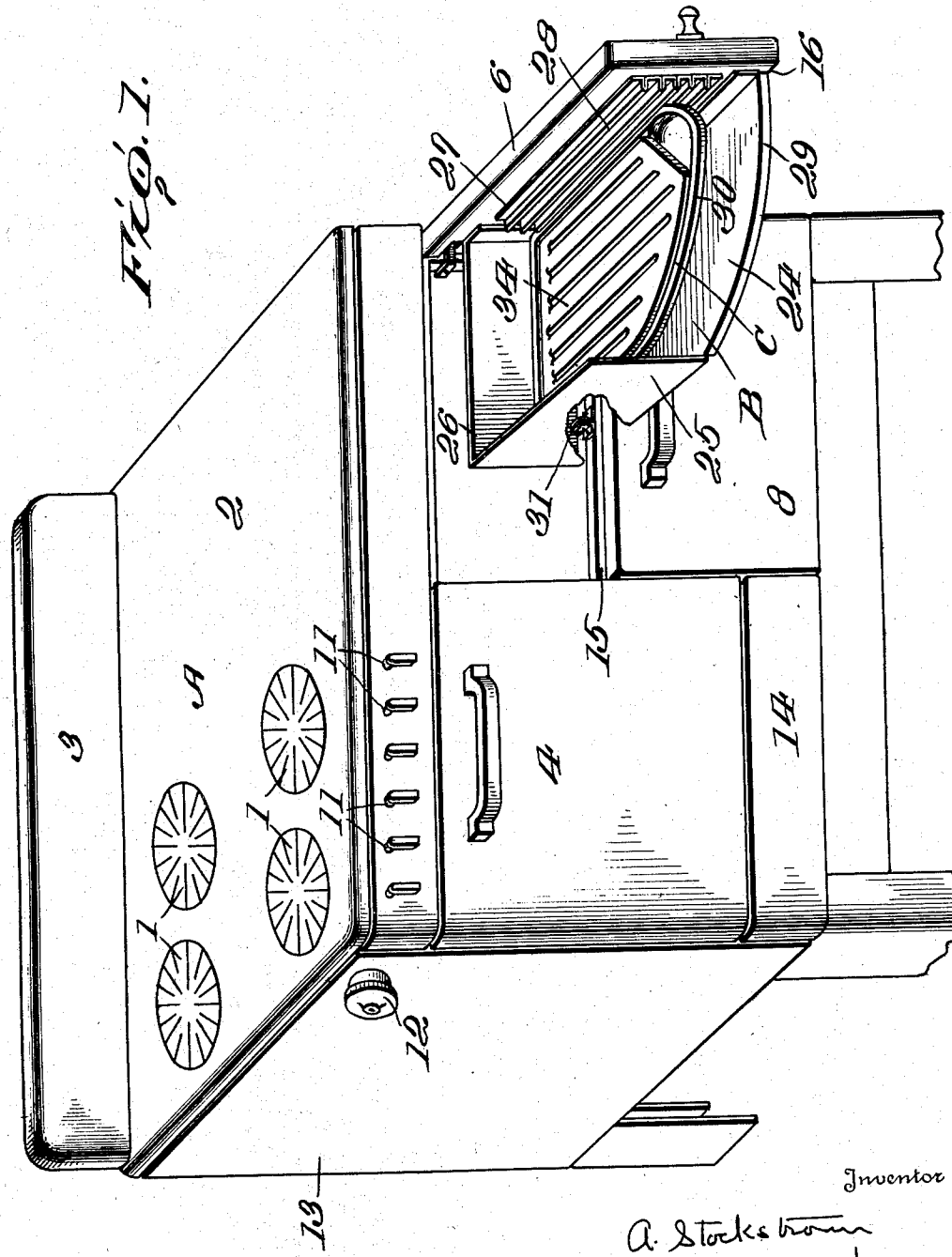
Jan. 7, 1936. A. STOCKSTROM ET AL 2,027,124

BROILER FOR GAS RANGES

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Fig. 1.



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FIG. 2.

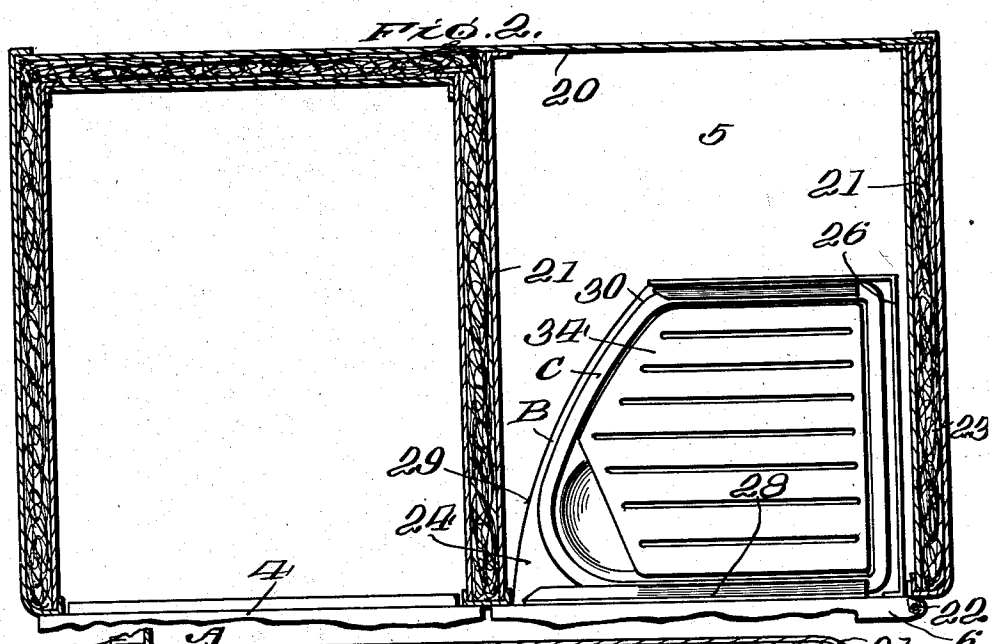
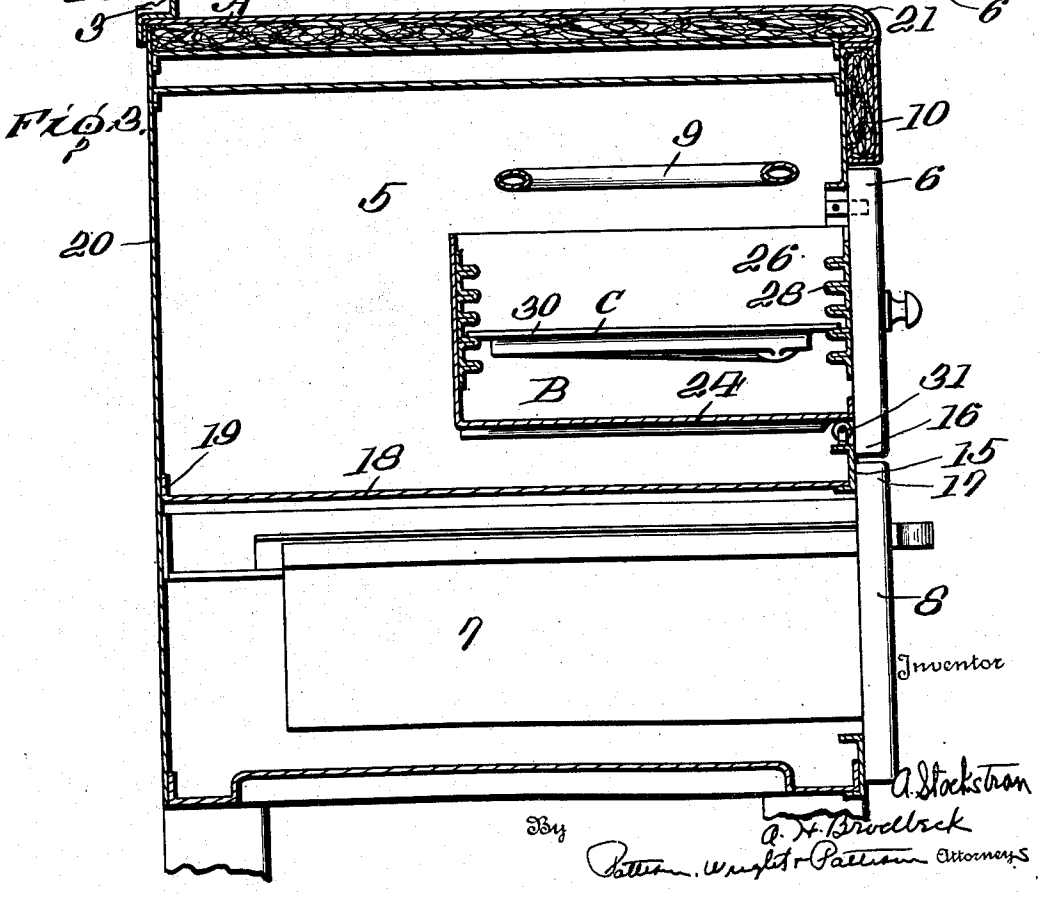


FIG. 3.



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UNITED STATES PATENT OFFICE

2,027,124

BROILER FOR GAS RANGES

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Application May 15, 1935, Serial No. 21,618

4 Claims. (Cl. 126—41)

This invention relates to improvements in broilers for gas ranges and has as one of its primary objects the provision of an improved broiler compartment for domestic gas cooking ranges.

A further object of the invention is the provision of a so-called "pull-out" broiler of improved construction.

A further object of the invention is the provision of an improved "pull-out" broiler which is easier to operate and more convenient in use than those now known and in use, less apt to get out of order and cheaper to manufacture.

Other specific objects, novel features of construction and improved results of the invention will appear hereinafter.

In the drawings:

Figure 1 is a view in front elevation of a table top range equipped with the improved broiler, the broiler being shown in its pulled-out or extended position.

Fig. 2 is a transverse longitudinal sectional view through the range appearing in Figure 1 of the drawings.

Fig. 3 is a vertical sectional view through the broiler compartment portion of the range appearing in Figure 1 of the drawings.

We are well aware that at the present time broilers for domestic cooking ranges are made in the form of a drawer which slides in and out of the range beneath the broiler burner of the broiler compartment. Broilers of this type have certain disadvantages, one of which is that they can only be pulled out a limited distance because to pull them out further would cause them to tilt as they would not maintain sufficient support with the broiler compartment. The tilting of the drawer and the broiler pan which it carries is of course not only a nuisance but is to a certain extent dangerous as the hot greases might be spilled upon the cook when the broiler pan and its drawer tilt. Furthermore the fact that the broiler cannot be pulled completely out makes the broiler less convenient for access to the meat or other food carried by the broiler pan.

In the sliding drawer type of broiler the construction is usually necessarily such as to be quite expensive of manufacture and includes sufficient mechanical cooperating parts as to render it liable to get out of order.

The above disadvantages mentioned in respect to the drawer type of broiler are all overcome by our improved broiler construction which we will now describe in detail.

It is to be understood that our improved broiler can be applied to or utilized in connection with ranges of any type and is not limited to use with a table top type of range just because that type is illustrated in the drawings. The table top type of range is a popular type and it is for this reason that a range of this construction is utilized in the drawings in illustrating the application of our improved invention in a gas range.

Describing the table top range in general terms as it appears in Figure 1 of the drawings, A designates the cooking top portion of the range and is provided with the usual four cooking top burner grids 1 positioned at one end of the range top. The other end of the range is a plain surface as indicated at 2 and constitutes a table top working portion which is conveniently present for the cook. As is more or less conventional construction a splash back or rear plate 3 extends throughout the entire length of the rear edge of the stove.

The disposition of the oven and broiler compartments in a range is optional but in the present instance the oven compartment of the range is behind the door 4 while the broiler compartment 5 is behind a vertically pivoted and horizontally swinging door 6. Beneath the broiler compartment there is a storage compartment or drawer 7 provided at the front of the range with a door or panel 8. The broiler burner 9 is disposed within the broiler compartment in the position indicated clearly in Figure 3 of the drawings. In the particular form of stove illustrated a panel 10 extends throughout the length of the stove immediately below the cooking top portion A and above the oven and broiler doors 4 and 6. The gas valve operating handles 11 for the top burners are disposed upon the front of this panel. The range illustrated is provided with an automatic temperature regulator for the oven and the setting wheel for this regulator is designated at 12 and is positioned on the end wall 13 of the range.

The oven door does not extend entirely down to the base of the range but is positioned above a panel 14 which extends across that portion of the length of the range which is occupied by the oven compartment. The range at its front on the broiler compartment side is provided with an angle iron 15 which serves as an abutment for the lower edge 16 of the broiler door and the upper edge 17 of the compartment door or panel 8. This angle iron also supports the front end of the broiler bottom 18 the rear end of

which is turned up and suitably secured as at 19 to the rear wall 20 of the range.

Inasmuch as the stove illustrated is of the insulated type all of the outer walls of the range are double walls, that is two walls in spaced relation the space between which is filled with suitable insulating material 21. The provision of the double spaced walls and the insulation is true not only of the end walls of the range but is also true of the table top portion 2 of the cooking top and of the panels 10 and 14 and the walls between the oven compartment and the broiler compartment.

Having described the general range construction in general terms the improved broiler will now be specifically described.

As mentioned the broiler door 6 is pivotally mounted to swing in a horizontal plane. The pivotal mounting of the door is at 22 upon the end 23 of the range and this door upon its inner face supports a drawer-like structure which is designated as an entirety by B. The hinge construction of the door is not specifically described inasmuch as this can vary greatly without departing from the spirit of the invention and its only limitation is that it be sufficiently strong to support the door, the drawer construction B and whatever might be carried by the broiler during the cooking operation.

This drawer construction B comprises a bottom 24, a rear wall 25 and a side wall 26. The rear wall 25 of the construction parallels the inner face 27 of the broiler door and the inner face of the broiler door as well as the inner face of the drawer end 25 are provided with corrugations forming channelways 28 which adjustably and slidably receive the broiler pan C.

The bottom 24 is provided with a rounded front edge 29 and the broiler pan is similarly shaped at its front edge as is clearly indicated at 30. This particular construction however is not necessary as the particular shape of the broiler pan forms no part of the present invention.

All parts of the drawer-like structure B are rigidly secured together and supported by the inner face 27 of the swinging door with the result that the opening and closing of the door will move the broiler pan and its associated structure into and out of the broiler compartment of the range, as is clearly evident from Figure 1 of the drawings.

To assure that the door will swing easily and that there is adequate support for the drawer-like construction B a roller 31 is positioned upon the angle bar 15 and engages the bottom 24 of the member B. It will be evident that this roller serves the dual purpose of permitting the door to swing easily and at the same time serve as a support when the door is in its fully open position, as is illustrated in Figure 1 of the drawings.

It is to be appreciated that the particular construction illustrated in the drawings can be departed from quite materially without departing from the spirit of the invention. As an instance the broiler pan C could be supported upon the bottom 24 and the rear wall 25 and could be eliminated as could also the corrugated channelways 28. As a matter of fact it is possible to easily visualize that the drawer-like compartment could be eliminated entirely and the broiler pan C supported wholly upon and from the inner wall or face 27 of the broiler door. Additionally with the construction illustrated a solid bottom 24 might be considered a surplusage and it could be replaced merely by brace rods extending from the inner wall of the broiler door to the wall or end 25 of the structure. Again the side wall 26 is not absolutely essential and could be eliminated although it has been found in actual practice that when the door is in its open position as illustrated in Figure 1 of the drawings this wall serves as a shield to protect the cook's hand against the heat of the broiler burner when she is moving or manipulating objects upon the broiler pan C.

It is to be understood of course that the present invention is applicable not only to gas ranges but is equally applicable and as satisfactory in use in connection with coal, oil or electric ranges.

In the particular embodiment of the invention illustrated the broiler pan C is provided with a grill or rack 34 although the provision of this member is not absolutely essential as the broiler pan construction can be made such as to meet any particular requirements without departing from the spirit of the present invention.

We claim:

1. In a range, a broiling compartment, a burner in said compartment, a horizontally swinging door providing access to said compartment, a drawer-like carrier carried by the inner side of said door, said carrier having a rear wall arranged in separated spaced relation to the inner face of said door, a side wall adapted to parallel the end wall of the range when the broiler carrier is within the broiler compartment and an open end adjacent but at right angles to the free end of the door, said drawer having a bottom secured to the inner face of the door and supporting the aforementioned side and rear walls of said drawer, supports carried by the inner face of the door and the inner face of the rear wall of the drawer member, and a broiler pan adjustable upon said supports and accessible through the open end of the drawer when the door is in an open position.

2. In a range, a broiling compartment, a burner in said compartment, a horizontally swinging door providing access to said compartment, a carrier mounted on the inner face of said door, said carrier having a wall arranged in separated and approximately parallel relationship to the inner face of said door, a member secured to the inner face of said door and supporting the aforementioned carrier wall, supports carried by the inner faces of the door and said carrier wall, and a broiler pan adjustable upon said supports and accessible and removable through the space between the door and said carrier wall when the door is in open position.

3. In a range, a broiling compartment, a burner in said compartment, a horizontally swinging door providing access to said compartment, a carrier mounted on the inner face of said door, said carrier having a rear wall arranged in separated and approximately parallel relationship to the inner face of said door, a side wall for said carrier adapted to parallel the end wall of the range when the carrier is within the broiler compartment, said carrier having an open end adjacent but at right angles to the free end of the door, a member secured to the inner face of the door for supporting and bracing said carrier rear and side walls, supports carried by the inner face of the door and the inner face of the rear wall of the carrier, and a broiler pan adjustable upon said supports and accessible

through the open end of the carrier when the door is in an open position.

4. In a range, a broiling compartment, a frame door opening affording access to said compartment, the bottom of said frame being in a plane above the broiling compartment bottom, a burner in the compartment, a horizontally swinging door providing access to said compartment, a drawer-like carrier mounted upon the inner face of said door, said carrier having side and rear walls and an open end adjacent but at right angles to the free end of the door, a bottom for said carrier secured to the inner face of the door and supporting and bracing said carrier walls, supports carried by the inner face of the door and the inner face of the rear wall of the drawer-like carrier member, a broiler pan adjustable upon said supports and accessible through the open ends of the drawer when the door is in an open position, and a roller mounted upon the bottom frame member of the door opening for supporting and facilitating the swinging movement of the carrier into and out of the broiler compartment.

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