June 9, 1931. C. M. DIBBLE 1,808,768

BROILER

Filed May 2, 1927

Fig. 1

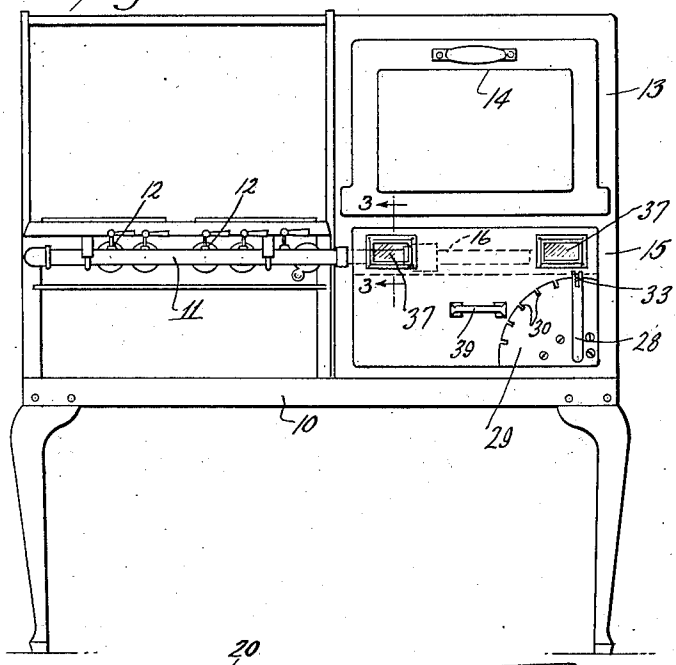


Fig. 3

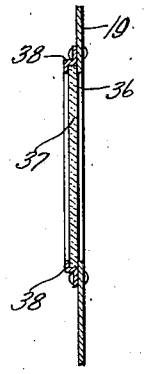
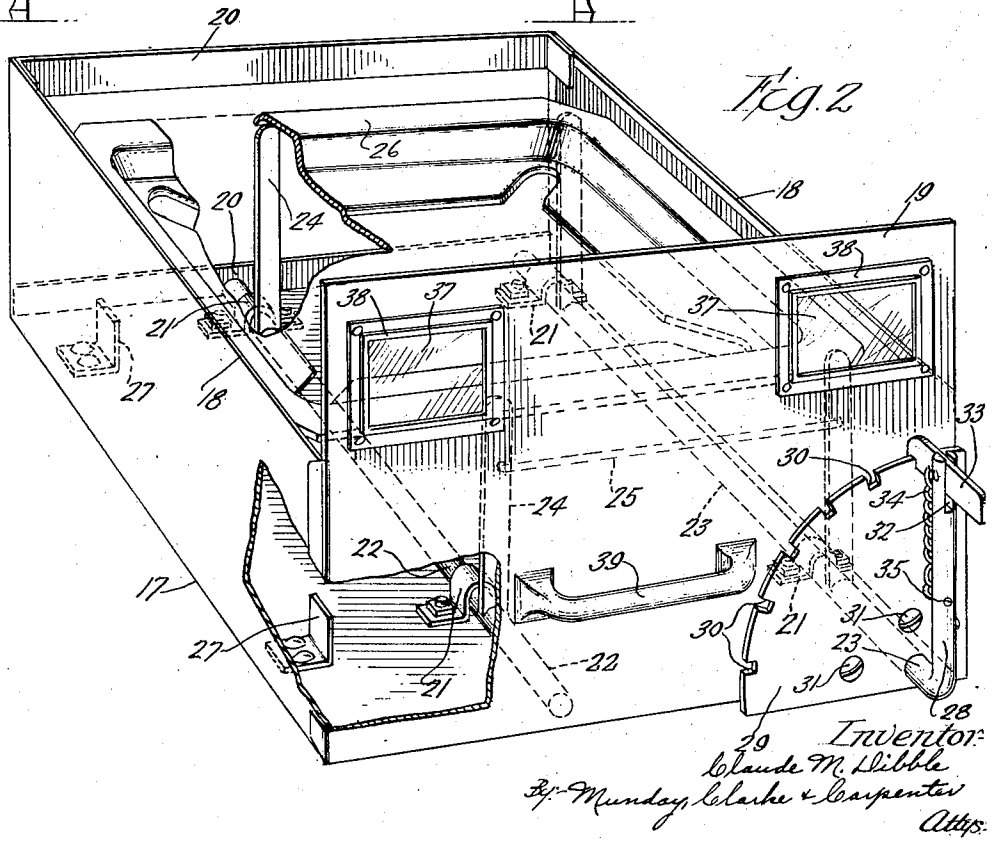


Fig. 2



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UNITED STATES PATENT OFFICE

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BROILER

Application filed May 2, 1927. Serial No. 188,078.

This invention relates in general to the provision of sight openings for a broiler door or drawer of an adjustable tray type to observe the progress of the cooking operation without opening and cooling the compartment.

An important object of the invention is the provision of means to observe the position and to vary the height of the broiler tray within the compartment from the outside thereof.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In the drawings:

Figure 1 is a front elevation of a stove having a broiler construction in accordance with the principles of this invention;

Fig. 2 is a perspective, with parts broken away for clearness of a broiler drawer, embodying this invention; and

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

In cooking, and particularly in the broiling operation, it is desirable to carefully watch the progress of the cooking and to vary it as desired, but in the ordinary broiler the door or drawer must be opened repeatedly in order to observe the progress of the cooking operation, thereby resulting in cooling the compartment and changing the cooking conditions each time the door is opened and also losing considerable heat and increasing the time required for such operation.

The present invention substitutes a drawer slidable within the broiler compartment of a stove, which has means operable from without the drawer for varying the height of the broiler tray therein and for observing the position of the tray, and consequently the position of the material carried by the tray, with respect to the burner without making it necessary to open a door, or to remove the drawer from the compartment. This permits a more rapid cooking because no heat or time is lost in continually opening the compartment. In fact, the more continuous application of the heat, and the adjustment of the boiler tray, result in a much quicker and a more accurate application of the heat as desired.

Referring more particularly to the drawings, the invention is illustrated as applied to an ordinary form of gas burning stove having a leg supported frame 10 with a fuel supply pipe 11 for admitting the fuel to burners 12, to an oven compartment 13 closed by a door 14, and to a broiler compartment 15 in which fuel pipe 16 is at the top of the compartment.

Movable into the broiler compartment 15 is a drawer 17 having sides 18 less in height than a front 19 and connected at the rear by upper and lower cross pieces 20, the intermediate portion of the back being open.

Loosely mounted in brackets 21 at the bottom of the drawer are bars 22 and 23 from which extend parallel arms 24 at the front and rear ends of the drawer, one or both corresponding front and rear arms of the two bars being connected by a link 25 for moving all of the arms 24 in unison. A tray 26 is movable freely in the drawer 17 but is limited in movement by engagement with the sides and front, and this tray is supported by the arms 24 so that rotary movement of the rods 22 and 23 will cause a corresponding raising or lowering of the tray 26 in the drawer. To limit the downward movement of the arms 24 and likewise of the tray 26, a pair of brackets 27 are secured to the bottom of the drawer in the path of the arms 24 mounted on the bar 22.

One of the bars 23 is provided with a crank extension 28 projecting from the front 19 of the drawer, at the lower corner thereof, and interposed between the drawer front and the crank extension is a plate 29 in the form of a sector with notches 30 in the curved edge, the plate being secured to the front 19 by fastening screws 31. At the outer end of the crank 28 is a slot 32 in which a pawl 33 is pivoted intermediate its ends, one end being adapted to engage in the notches 30 of the plate and the other end extending beyond the crank arm 28 to form a hand engaging extremity for

raising the pawl from engagement with the notches. A spring 34 is attached at one end to the pawl 33 and at the other end to a pin 35 projecting from the crank arm 28, the spring tending to hold the pawl in engagement with the notches 30.

At the upper portion of the cover or drawer front 19 are sight apertures 36 covered by transparent windows 37 of glass or other suitable material secured in place by a marginal frame 38 which may be riveted to the drawer front 19. A handle 39 is also provided at the front of the drawer for opening and closing it.

With this construction the tray 26 is removable separately from the drawer and may be raised or lowered to any desired extent by moving the crank 28 after first disengaging the spring-pressed pawl 33. The tray will be moved vertically without danger of spilling any liquid content thereof and is adjusted vertically in height depending upon the amount of heat desired for cooking. The location of the tray in the drawer is visible from the outside by noting the positions of the crank 28, and the condition of the contents of the tray is visible through the sight apertures in any position of the tray so that the heat of the burner in the broiler compartment may be adjusted by means of a valve on the outside, or the valve may remain the same and the applied heat may be varied by changing the elevation of the tray with respect to the overhead burner. The burner pipe 16 for the broiler compartment clears the reduced side 18 of the drawer, and the door or front 19 closes the opening for the broiler compartment at the front of the stove frame.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that many changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. The combination with a stove having a broiler compartment and front opening therefor, a drawer slidable in the opening, a broiler tray fitting loosely in the drawer, means engaging the under side of the tray operable from the front of the drawer for raising and holding the tray at different elevations, and sight windows at the front of the drawer above the level to which the tray is raised.

2. In a broiler drawer, a front with closed sight windows at the top, a tray fitting loosely within the drawer, means for raising the tray vertically below the level of the sight apertures, said means acting upon the under side of the tray, and an operating device for the said means comprising a movable arm and means for securing and indicating the position of the tray within the drawer.

3. A broiler drawer comprising a front to close a broiler compartment opening, a sight window at the top of the front, a broiler tray and means within the drawer slidably engaging the under side of the tray for raising it to different elevations, a notched plate at the front of the drawer, and means including a spring-pressed pawl for engaging the notches to hold said elevating means in different positions, the elevation being indicated by the particular notch engaged and the tray being visible through the said sight window.

4. A broiler drawer comprising a front with window apertures at the top, a tray fitting loosely within the drawer, means for raising the tray comprising a pair of pivoted rods with arms extending therefrom, connected together for joint movement and slidably engaging the under side of the tray at their free extremities, a crank extending from one of the rods beyond the front of the drawer, a notched plate secured to the drawer front between it and the crank, a spring-pressed pawl in the crank for engaging the notches of the plate, and stops for limiting the downward movement of the arms.

5. In a stove having a broiler section, a drawer closure therefor, the side and rear walls being cut away to permit passage under an overhead burner, a tray loosely mounted within the drawer, means for raising and lowering the tray, said means comprising a plurality of interconnected arms slidably engaging the bottom edges of the tray, a control handle for the raising and lowering means mounted at the front of the drawer, said handle being adapted to be locked in place and to indicate the position of the tray, and a plurality of sight apertures in the front of the drawer placed above the top limit of motion of the tray.

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