

Feb. 8, 1938.

W. D. ANTRIM ET AL

2,107,972

COOKING STOVE

Filed Aug. 29, 1936

2 Sheets-Sheet 1

Fig. 1.

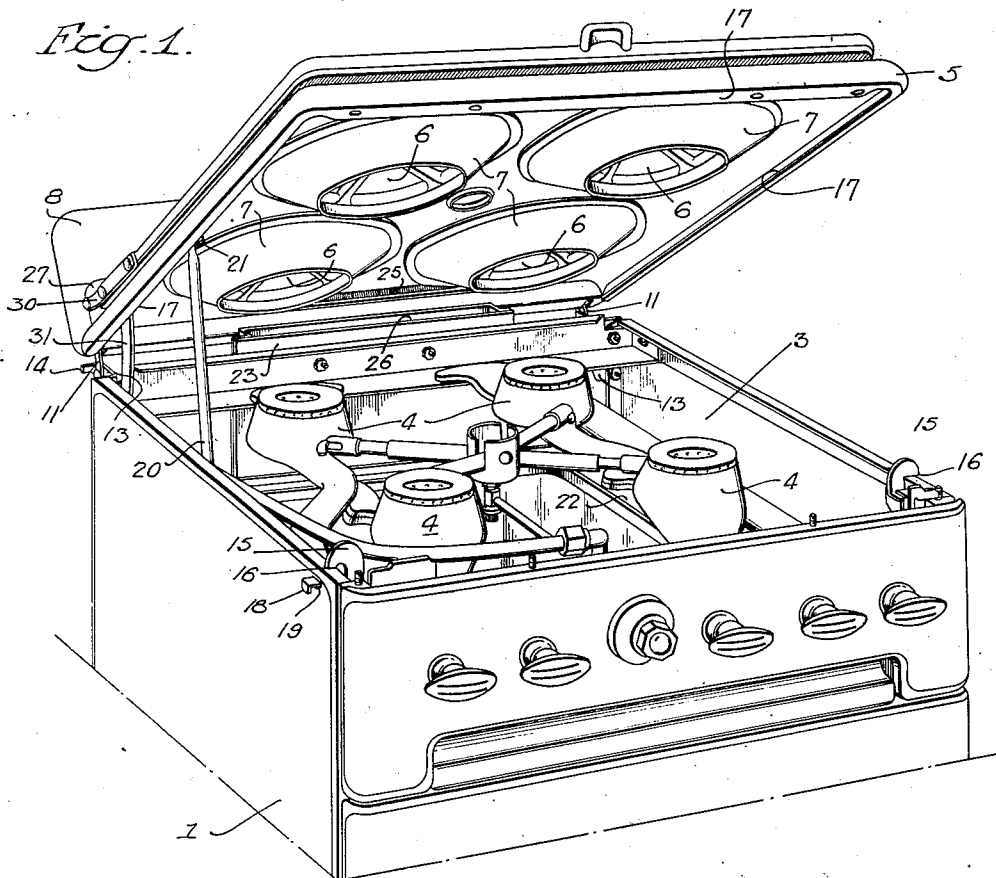
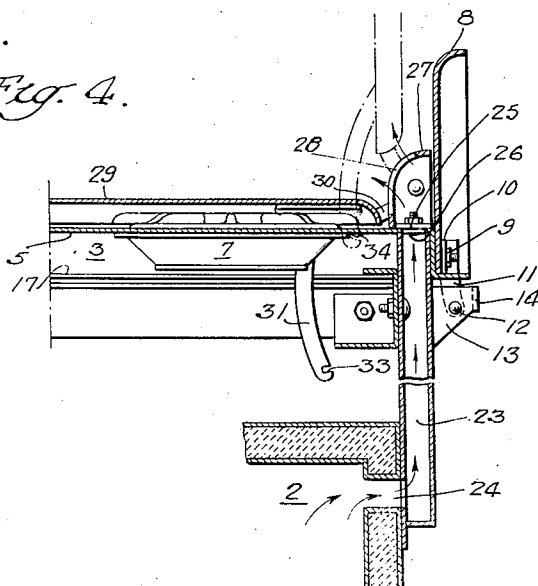


Fig. 4.



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2 Sheets-Sheet 2

Fig. 3.

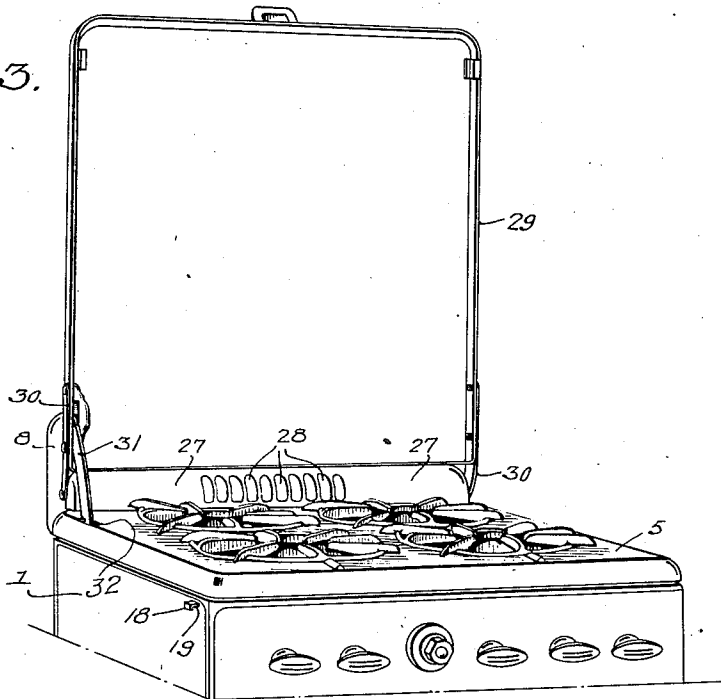


Fig. 2.

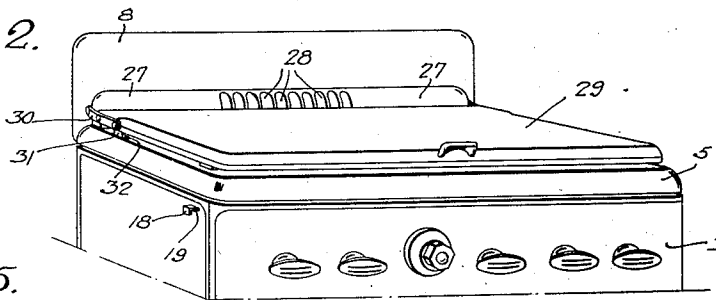


Fig. 5.

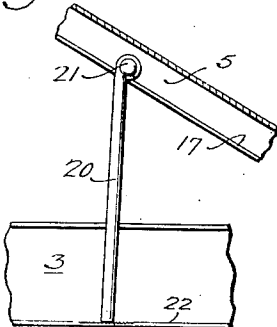
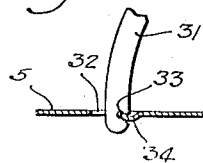


Fig. 6.



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UNITED STATES PATENT OFFICE

2,107,972

COOKING STOVE

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Application August 29, 1936, Serial No. 98,580

4 Claims. (Cl. 126—39)

This invention relates to new and useful improvements in ranges and stoves and more particularly to domestic cooking ranges and stoves of the gaseous fuel type.

In accordance with the present day trend in the design of domestic cooking stoves and ranges, such devices are for the most part entirely encased within a cabinet-like structure of sheet metal panelling the external surfaces of which are enamelled and in some instances provided with suitable designs to provide a pleasing appearance which will harmonize with the color scheme, fittings and furnishings of the domestic kitchen or kitchenette. However, since the advent of stoves of this design and type, considerable difficulty has been encountered in providing for ready access to the burners in the chamber immediately below the cooking top for the purpose of cleaning and adjusting the same without defeating the purpose of the cabinet-like casing and its primary object of completely concealing the parts thereof to produce a pleasing external appearance.

With the foregoing in mind, the principal object of the present invention is to provide a domestic cooking stove or range of the character set forth which is novelly constructed and arranged to permit ready access to the top burner at will for purposes of cleaning and adjusting the gas burners located therein without detracting from the external appearance of such stove or range.

Another object of the invention is to provide a stove or range of the stated character which is novelly constructed and arranged to direct the hot combustion gases from the oven thereof forwardly over the cooking top of the stove and outwardly from the wall of the kitchen or other room in and against which such stove may be located.

The invention consists further in the novel construction and arrangement of parts described hereinafter and shown in the accompanying drawings, in which

Fig. 1 is a fragmentary view in perspective of a stove or range made in accordance with this invention showing the cooking top plate and cover in raised position.

Fig. 2 is a fragmentary view in perspective of the stove or range showing the cooking top plate and its cover in closed or down position.

Fig. 3 is a view similar to Fig. 2 but showing the stove or range with the cooking top cover member in raised or open position.

Fig. 4 is an enlarged fragmentary view in section vertically through the disclosure in Fig. 2.

Fig. 5 is a fragmentary view in elevation illustrating the means for maintaining the cooking top plate in raised or open position; and

Fig. 6 is also a fragmentary view in elevation showing means for supporting the cover member in raised or open position with respect to the cooking top plate of the stove.

Referring now more particularly to the drawings, reference numeral 1 designates generally a cooking stove or range of the enclosed cabinet type made in accordance with the present invention and comprising an oven 2 and a top burner chamber 3 in which several burners 4 are located below the usual cooking top plate 5. The cooking top 5 is provided with a plurality of downwardly offset openings 6 therein suitably located to register with the several burners 4 and these openings 6 are surrounded by outwardly inclining annular portions 7 which extend upwardly to the plane of said cooking top plate 5 to form saucer-like recesses the diameter of the outer peripheries of each of which approximates the diameter of the base of a cooking pot or vessel of average size. Each of the openings 6 has a grate, as illustrated. From the foregoing, it will be observed that access to the top burners 4 in the chamber 3 is extremely difficult if not impossible in instances where, as in cooking stoves or ranges now on the market, the cooking top plate is fixedly secured in position overlying said burner chamber 3 and the burners 4 therein.

The particular feature of the present invention resides in hingedly mounting the cooking top plate 5 so that the same may be lifted as shown in Fig. 1 to permit ready and easy access to the chamber 3 and top burners 4 at will. As best illustrated in Figs. 1 and 4 of the drawings, the cooking top plate includes a splash guard or plate 8 which is secured at the rear end or edge of said top plate 5 by means of bolts, rivets, welding or the like 9, and a pair of brackets 10 having depending lug portions 11 are secured to the cooking top plate at or adjacent opposite ends of the rear or back edge thereof in any suitable manner as for example by the aforementioned means 9. The depending lugs 11 are pivotally connected by any suitable means such as bolts, pins or the like 12 to suitably positioned rearwardly projecting brackets 13 secured at the back or rear of the stove body adjacent the opposite side edges thereof near the upper end of said body portion and these brackets 13 have lat-

erally extending portions 14 which are arranged for engagement by the lugs 11 to limit movement of the cooking top plate 5.

For the purpose of locking the cooking top plate 5 in closed or down position shown in Figs. 2 and 3 of the drawings, a latch or the like 15 is mounted at opposite sides of the stove or range adjacent the forward upper edge of the body portion thereof and comprises laterally extending hook portions 16 at their upper ends arranged to engage over the inwardly turned edge flange 17 of the top plate 5. The latch members 15 also include actuating hand portions 18 which project laterally outward through slots 19 in the side walls of the body of the stove or range, and operation of said latches 15 is effectively controlled by means of springs (not shown) arranged so that upon closure of the cooking top plate 5 the hook portions 16 thereof automatically engage over the flange 17 to lock said top plate in that position, said hooks 16 of the latches 15 being released from engagement with the flange 17 to unlock the top plate by merely pressing inwardly upon the projecting hand portions 18 thereof against the action of the springs. A rod or bar 20 is pivotally connected to the under side of the top plate 5 as at 21 and is arranged to swing freely so that when said top plate 5 is raised to the position shown in Fig. 1 the bar or rod 20 will assume a substantially upright position with its lower end resting upon the upper surface of the bottom or wall flange 22 of the burner chamber 3 to support the top plate 5 in raised position in the manner shown in Fig. 5 of the drawings.

As shown in Fig. 4 of the drawings, a flue box 23 is mounted at the rear of the stove or range 1 to receive the hot combustion gases from the oven 2 through a communicating opening 24 in the rear wall of the latter and conduct or direct such gases upwardly and discharge the same through a suitable opening or openings 25 formed in the cooking top plate 5 forwardly of the splash plate 8. The opening or openings 25 in the cooking top plate 5 are arranged so as to accurately register with the upper end opening or outlet 26 of the flue box 23 when said top plate 5 is in closed or down position, said flue box 23 extending upwardly to the under surface of the top plate 5 when the latter is closed to insure passage of substantially all of the combustion gases through said opening or openings 25 therein.

For the purpose of deflecting or directing the gases rising upwardly through the flue 23 and the opening or openings 25 in the top plate 5 so that the same will be discharged forwardly over the top of the stove or range, a hood or housing 27 having a number of suitably arranged forwardly facing openings 28 therein is secured by any suitable means to said top plate 5 or splash guard 8 and disposed at the rear of the former immediately forward of and along the latter as shown in Figs. 2, 3 and 4 of the drawings. The hood or housing 27 in the present instance extends substantially to the side edges of the cooking top plate 5 and splash guard 8 and a cover member 29 for said top plate 5 is pivotally connected to opposite ends of said housing 27 by means of rearwardly extending brackets 30 which are secured to opposite side edges of said cover 29 in any suitable manner. Thus it will be observed that the cover 29 may be pivoted or swung in a vertical arc relative to the cooking top plate 5 as well as the stove proper, and for the purpose of supporting said cover in raised or open position with respect to said top plate 5 an arcuate

element or guide 31 is secured to the former at one side thereof and extends freely through a slot or opening 32 in the top plate 5 for movement relative to the latter with the cover 29, the lower end of said arcuate member 31 being notched as at 33 for engagement by a projection 34 at one end of the slot 32 in said top plate 5 as shown in Fig. 6 of the drawings when the cover is raised with respect to the top plate 5 as shown in Fig. 3 of said drawings. The previously mentioned brackets 30 by means of which the cover 29 is pivoted to the housing 27 preferably extend or project rearwardly of said cover 29 so that sufficient clearance is afforded between said housing and the adjacent edge of the cover 29 for free movement of the latter in such manner that the openings 28 in the housing 27 will not be obstructed by said cover when in either closed or raised open position as best illustrated in Figs. 2 and 3 of the drawings.

From the foregoing description of the present invention it will be seen that the novel construction and arrangement of parts provides a domestic cooking range or stove of the enclosed or cabinet type wherein the cooking top burners are readily and easily accessible for purposes of cleaning and adjustment and while a certain specific embodiment of said invention has been disclosed herein for descriptive purposes, it is not intended that the invention shall be limited thereto, but that modifications and changes in construction and arrangement may be incorporated therein within the scope of the annexed claims.

We claim:

1. In a stove having an oven and a cooking top burner chamber, a hinged cooking top plate having an opening suitably located therein, said cooking top plate normally overlying and enclosing the burner chamber and adjustable to an elevated position for access to said burner chamber and a flue communicating with the oven and extending to the under side of the cooking top plate when in said normal position with the outlet opening of said flue registering with the opening in said cooking top plate.
2. In a stove having an oven and a cooking top burner chamber, a hinged cooking top plate normally overlying and enclosing the burner chamber and adjustable to an elevated position for access to said burner chamber, said cooking top plate including a rear splash guard and having an opening therein forwardly of said splash guard, and a flue at the rear of the stove communicating with the oven and extending to the under side of the cooking top plate when in said normal position with the outlet opening of said flue in register with the opening in said cooking top plate.
3. In a stove having an oven and a cooking top burner chamber, a hinged cooking top plate normally overlying and enclosing the burner chamber and adjustable to an elevated position for access to said burner chamber, said cooking top plate including a rear splash guard and having an opening therein forwardly of said splash guard, a flue at the rear of the stove communicating with the oven and extending to the under side of the cooking top plate when in said normal position with the outlet opening of said flue in register with the opening in said cooking top plate, and a housing having openings therein mounted forwardly adjacent the splash guard and overlying the opening in the cooking top plate.
4. In a stove having an oven and a cooking top

burner chamber, a hinged cooking top plate normally overlying and enclosing the burner chamber and adjustable to an elevated position for access to said burner chamber, said cooking top plate including a rear splash guard and having an opening therein forwardly of said splash guard, a flue at the rear of the stove communicating with the oven and extending to the under side of the cooking top plate when in said normal position with the outlet opening of said flue in register with the opening in said cooking top plate, a housing having openings therein mount-

ed forwardly adjacent the splash guard and overlying the opening in the cooking top plate, and a cover member arranged to normally overlie the cooking top plate and adjustable to an elevated position adjoining the splash guard to expose said cooking top plate for use, the arrangement and mounting of said cover being such that the openings in the housing are free and unobstructed in both terminal positions of the cover.

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