March 30, 1937. C. B. ROLLINS 2,075,406

GAS RANGE

Filed April 27, 1936

Fig. 3.

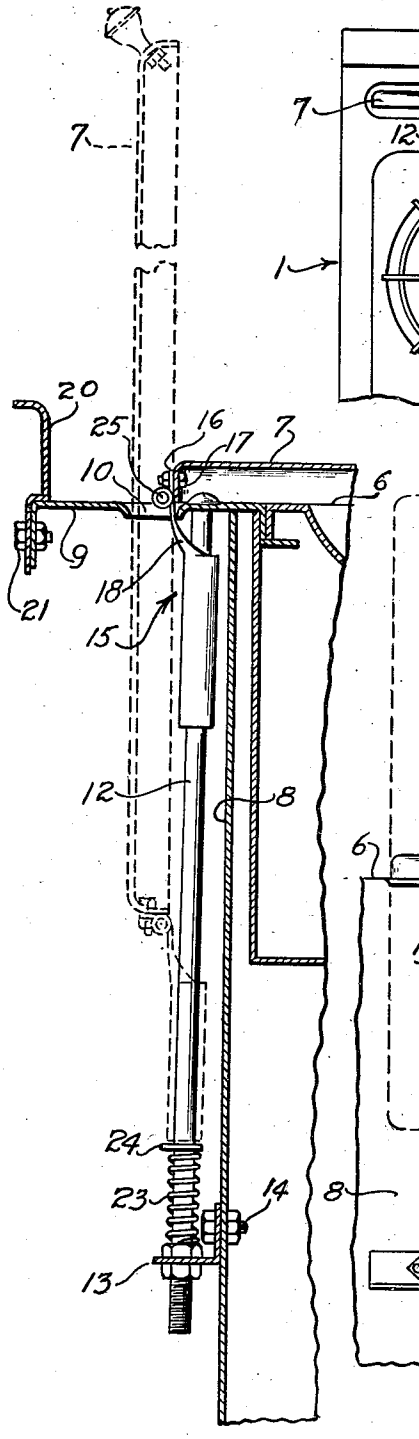


Fig. 1.

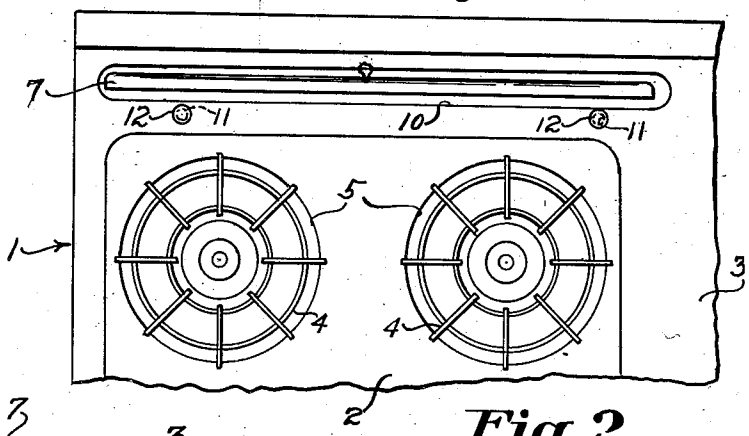
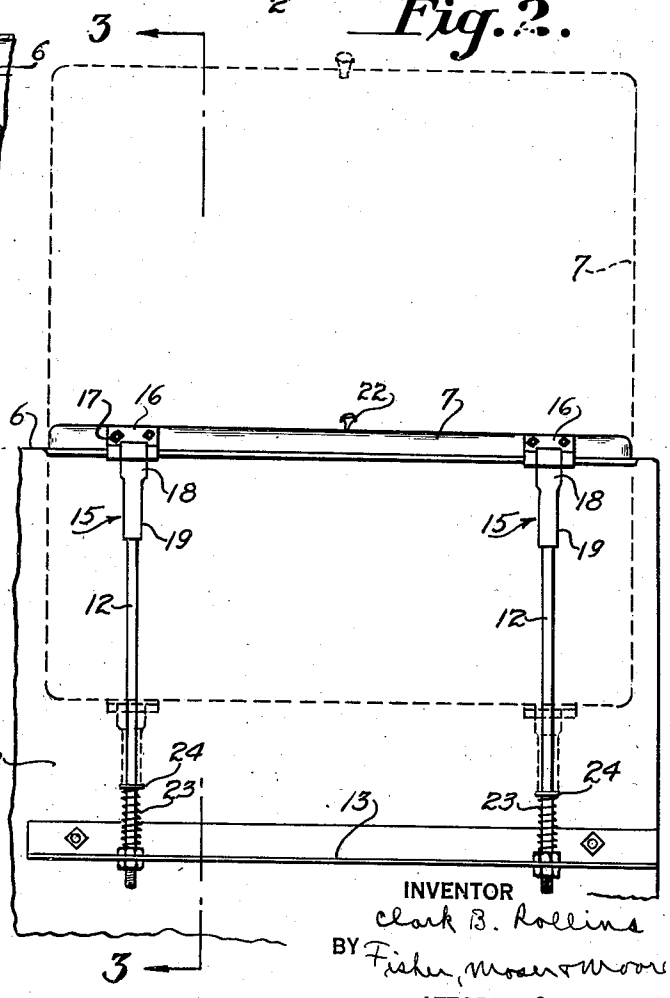


Fig. 2.



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GAS RANGE

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Application April 27, 1936, Serial No. 76,679

3 Claims. (Cl. 126—37)

My invention relates to gas ranges and more particularly to gas ranges of the type having a movable cover or closure for concealing the burner grids, when the burners are not in use.

An object of the invention is to provide a simple and inexpensive cover or closure which may be readily moved to a vertical position, parallel with the rear wall of the range, when the burners are in use.

A further object of the invention is to provide a novel form of hinge and guide means therefor which securely supports the cover in vertical position and definitely limits rearward movement of the cover from that position.

Other objects and advantages of the invention will be apparent as the description is considered with the accompanying drawing, in which:

Figure 1 is a fragmentary plan view of a range embodying the invention showing the cover in open position;

Figure 2 is a rear view of the range showing the cover in closed and open positions in full and dotted lines respectively, the rail being removed; and

Figure 3 is a section on the line 3—3 of Figure 2.

Referring more particularly to the drawing 1 denotes a range having burner and oven sections 2 and 3 respectively. The burner grids 4, positioned beneath burner opening 5, in the top wall 6 of the range, are normally concealed from view by a cover member 7, which is adapted to overlie the burner portion of the stove when in closed position. The cover member 7 is adapted to be swung upwardly and rearwardly and then lowered to vertical position to the rear of and parallel with the rear wall 8 of the range, as best shown in Figure 2.

The top wall 6 extends rearwardly of the back wall 8 to form a narrow overhanging portion or extension 9, in which a longitudinally extending slot or opening 10 is formed. This slot is slightly spaced from but parallel with the rear edge of the back wall 8, and is of sufficient length and width to slidably receive the cover member 7 when the latter is swung to open position, in a manner presently described.

The extended portion 9 of the top wall 6, is provided with two spaced bolt openings 11, located adjacent the ends of the slot 10 and slightly to the front of the latter. Headed bolts 12 extending downwardly through these openings, are supported at their upper ends substantially parallel with the rear wall 8, by the extension 9, and the lower ends of the bolts are secured to a bracket 13 by means of nuts 14. Slidably mounted on each headed bolt 12 is a combined strap hinge and sleeve member 15, comprising a strap hinge and a tubular sleeve. Thus an arm or strap 16 of the hinge part is secured to the rear edge of the cover 7 by bolts 17 and the other arm 18 terminates in an integral sleeve part 19, loosely sleeved upon the headed bolts 12. While the hinge arm 18 is preferably integral with the sleeve it is obvious that these parts may be separately formed and suitably connected together, as by welding or the like. The sliding fit between sleeves and headed bolts is sufficiently loose to permit of a slight rocking movement of the former.

A guard rail 20 of conventional construction is secured to the rear edge of the top wall 6, by bolts 21. As the primary purpose of these guards is to prevent dishes and the like from sliding off the cover when pushed to the rear of the range, they are generally of rather light sheet metal construction. Consequently it is impractical to have the guard support the cover when the latter is in vertical open position. However, by virtue of the location of the slot 10 and the guiding and supporting action of the sleeves 19, on the guide bolts 12, the cover is always maintained out of contact with the guard.

Movement of the cover from full open to full closed position, is accomplished in the manner illustrated in Figure 2. It is merely necessary for the operator to grasp the knob or handle 22 and swing the cover upwardly and rearwardly to vertical position, on its hinges, about the axis of pivot pins 25, which pins serve as a fulcrum. During this movement the substantially rearward stress exerted on the downwardly and forwardly extending lower straps or arms 18, of the hinges, causes the sleeves 19, to rock slightly from normal parallel vertical position on the headed guide bolts 12, and to become frictionally locked against downward sliding movement thereon. However, this stress and binding action is released as the cover assumes a vertical position and exerts a downward rather than a rearward stress upon the sleeves through the medium of hinge arms 18. The sleeves then slide downwardly upon the bolts and the cover is simultaneously guided downwardly through the slot 10, until the sleeves come to rest upon a pair of coil springs 23, mounted on the lower ends of the bolts 12 and seated at their lower ends on bracket 13. Washers 24 also slidably mounted on the bolts 12, and resting on the upper ends of the springs, afford a good seat for the lower ends of the sleeves. The combined supporting and guiding action of the hinges,

sleeves and guide rods, together with the location of the slot 10 in substantially spaced relation with respect to the rear edge of the top wall or extension, maintains the cover entirely out of contact with the back rail during the closing operation. In fact there is always a slight clearance between the top face of the cover and the rear wall of slot 10, during the opening and closing operations and also when the cover is at rest in open vertical position on the cushioning springs 23.

Having thus described my invention, what I claim is:

1. In a cooking range, a burner compartment, a top wall for said compartment having a rearward horizontally disposed extension, said extension having a transverse slot therein extending along the rear of said compartment and spaced inwardly from said rear edge, a horizontally disposed cover for said compartment having its rear edge adjacent said slot, spaced guide members connected to said extension and vertically supported at the rear of said compartment, sleeve members slidably mounted on said guide members and hinge members rigidly connected to said sleeves and pivotally connected to the rear edge of said cover for directing the rear edge of said cover downwardly through said slot upon movement of said closure from horizontal to vertical position.

2. In a cooking range, a burner compartment, a top wall for said compartment extending rearwardly thereof and having a slot therein, a horizontally disposed cover member for said compartment having its rear edge adjacent said slot, spaced vertically disposed guide members adjacent the rear of said compartment and forwardly of said slot, sleeve members slidably sleeved on said guide members, means rigidly connected at one end to said sleeves and the other end of said means projecting rearwardly and upwardly through said slot and being pivotally connected to said cover, the point of said pivotal connection being offset from the vertical axis of said sleeves whereby upon movement of said cover from horizontal to approximately vertical position said sleeves will be caused to rock and frictionally grip said guides and upon movement to full vertical position said sleeves will be released and the rear edge of said cover will be directed downwardly through said slot.

3. In a cooking range, a burner compartment, a top wall for said compartment and extending rearwardly thereof and having a slot therein, a horizontally disposed cover member for said compartment having its rear edge adjacent said slot, spaced vertically disposed guide members fixed to said compartment forwardly of said slot, sleeve members loosely sleeved on said guide members, hinge means projecting through said slot and pivotally connecting said sleeve with said cover, the point of said pivotal connection being offset from the vertical axis of said sleeves whereby said sleeves will be rocked from a vertical position and caused to grip said guide members upon upward tilting movement of said cover from horizontal position.

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