March 8, 1938. W. F. ROGERS 2,110,176

STOVE DOOR

Filed Dec. 21, 1936

Fig. 1.

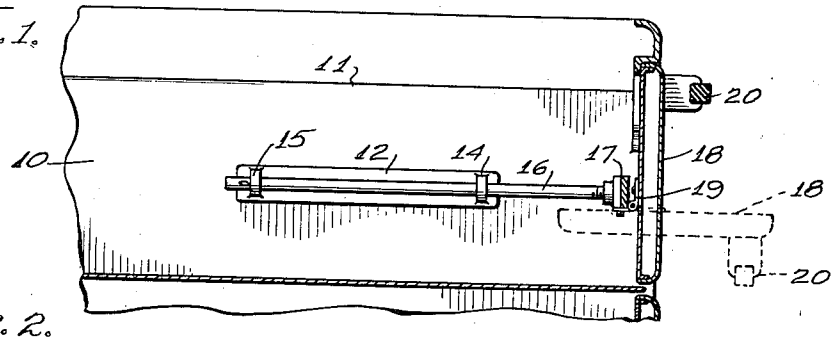


Fig. 2.

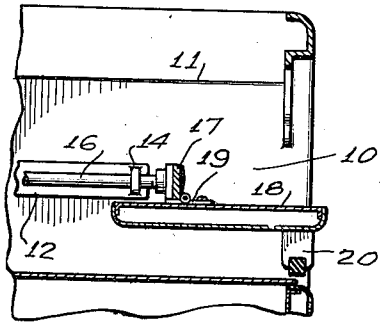
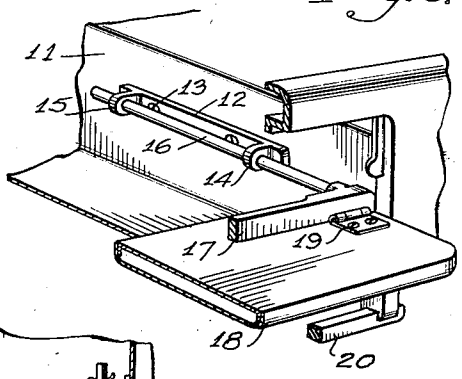


Fig. 3.



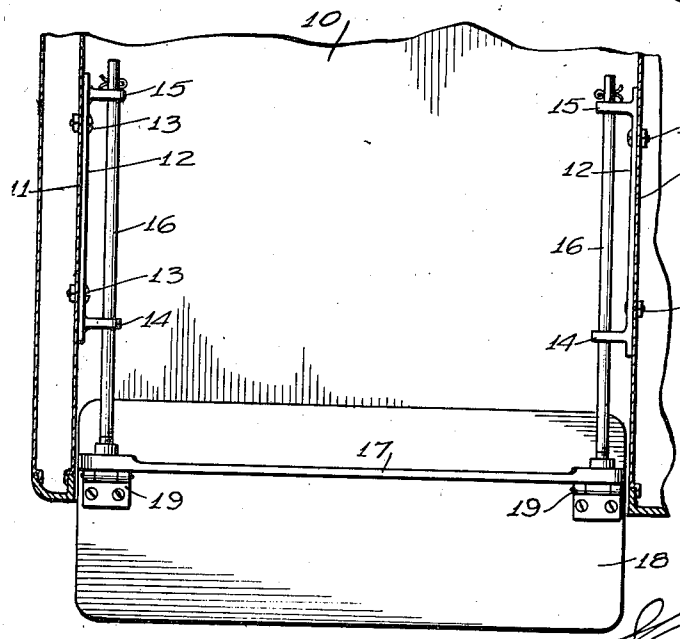


Fig. 4.

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2,110,176

STOVE DOOR

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Application December 21, 1936, Serial No. 116,892

2 Claims. (Cl. 126—190)

This invention relates to the art of cooking stoves and ranges, and has reference more particularly to an improved mounting for the doors thereof.

Heretofore, so far as I am aware, the doors closing the front openings of the ovens, burner chambers, and the like of cooking stoves have for the most part been hinged at their lower edges to open outwardly. In a few instances, as shown for example in my former Patent Reissue No. 18,465, May 17, 1932, such a door has been hinged on a pivot axis between its top and bottom edges so that, when fully opened to substantially horizontal position it lies partly within and partly without the stove body.

When such doors are fully opened their outwardly projecting portions form an impediment to free movement past the front of the stove of the housewife or cook, who, unless care is exercised, is liable to collide with the edge of the door to the possible injury of her person or her dress, and possible breakage or dislocation of the door hinge.

The object of the present invention is to provide an improved door mounting that will do away with this menace of open stove doors, while at the same time preserving all the advantages of a hinged door.

A simple and practical embodiment of the principle of the invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a vertical section of the forward portion of the upper part or burner chamber of a gas stove, showing my improved door mounting applied thereto, the door being shown by full lines in closed position and by dotted lines in opened position and lying partly within and partly without the burner chamber.

Fig. 2 is a similar view, but showing the door moved inwardly to a position substantially wholly within the burner chamber.

Fig. 3 is a perspective view, showing the door swung down to horizontal position, but not pushed into the burner chamber.

Fig. 4 is a horizontal section through the burner chamber, showing in top plan the door and its mounting as they appear in Fig. 3.

Referring to the drawing, 10 designates as an entirety what is known as the burner chamber or box of a gas stove, to which the improvement of the present invention is applied. I have not illustrated the burner, manifold, mixing and control valves, since they are well known and form no part of my present invention, but for a typical illustration of the same reference may be had to my former patent, Reissue No. 18,465 hereinabove fully identified.

On the side walls 11 of the chamber 10 are mounted a pair of slideways for a door support, each of these slideways as herein shown comprising a bar 12 secured to the side wall as by bolts 13 and having a pair of spaced apertured lugs 14 and 15. Slidable in these lugs are a pair of parallel rods 16 connected at their front end by a cross bar 17. 18 designates the door for the front end of the compartment 10, to the rear side of which and between its top and bottom edges are attached a pair of hinges 19, one leaf of each hinge being attached to the rear side of the door and the other to the under side of the cross bar 17. 20 designates the usual handle on the front of the door by which it is opened and closed.

The normal closed position of the door is illustrated by full lines in Fig. 1. When the door is to be opened, it is first swung downwardly on its hinges to the position shown by dotted lines in Fig. 1, and full lines in Fig. 2. The door and its support are then pushed inwardly to the position shown in Fig. 2, in which position it will be seen that the door is substantially wholly within the compartment space. To close the door, it is first drawn outwardly to the position shown in Fig. 3, and then swung upwardly.

The outermost pair 14 of the lugs are spaced from the plane of the door opening a distance substantially equal to the distance from the hinge axis to the top edge of the door, so that the door, when lowered, may be slid substantially wholly within the compartment space.

From the foregoing it will be seen that when the door is open and pushed into the compartment space, the entire front of the stove is unobstructed and presents nothing to catch on the clothes of the housewife or cook or collide with her person as she passes the front of the stove.

While I have shown and described one simple and practical embodiment of the principle of the invention, it is obvious that the structural details may be varied within the purview and scope of the claims. And while I have illustrated the invention as applied to a burner chamber or box, it is obvious that it may be applied with equal advantage to an oven or any other compartment of a stove.

I claim:

1. The combination with a stove compartment having a door opening, of a plurality of horizontally spaced apertured lugs attached to each side wall of the compartment, a door support com-

prising parallel rods slidably mounted in said lugs and a cross bar connecting the outer ends of said rods, and a door hinged on its inner side and between its top and bottom edges to said cross bar substantially in the plane of the door opening when the door is closed; the outermost pair of said lugs being spaced from the plane of the door opening a distance substantially equal to the distance from the hinge axis to the top edge of the door, whereby the door, when lowered, may be slid substantially wholly within said compartment.

2. The combination with a stove compartment having a door opening, of a pair of horizontal bars respectively secured to the side walls of the compartment at the same height on the latter, a pair of horizontally spaced inwardly extending apertured lugs on each bar, the lugs on each bar being located directly opposite the lugs on the other bar, a door support comprising parallel rods slidably mounted in said lugs and a cross bar connecting the outer ends of said rods, a door hinged on its inner side and between its top and bottom edges to said cross bar substantially in the plane of the door opening when the door is closed, and stops on the inner ends of said rods cooperating with the innermost pair of lugs to limit the outward movement of said rods and cross bar; the outermost pair of said lugs being spaced from the plane of the door opening a distance substantially equal to the distance from the hinge axis to the top edge of the door, whereby the door, when lowered, may be slid substantially wholly within said compartment.

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