

Dec. 30, 1930.

F. E. SEELEY

1,787,022

OVEN SHELF

Filed July 24, 1929

2 Sheets-Sheet 1

Fig. 1.

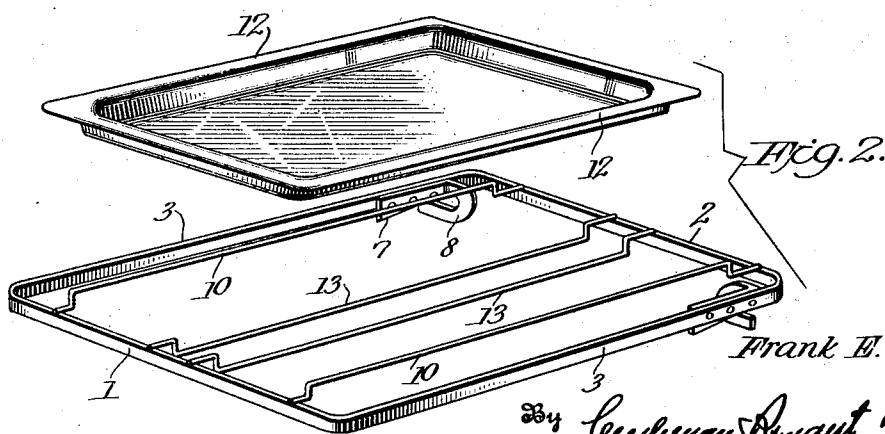
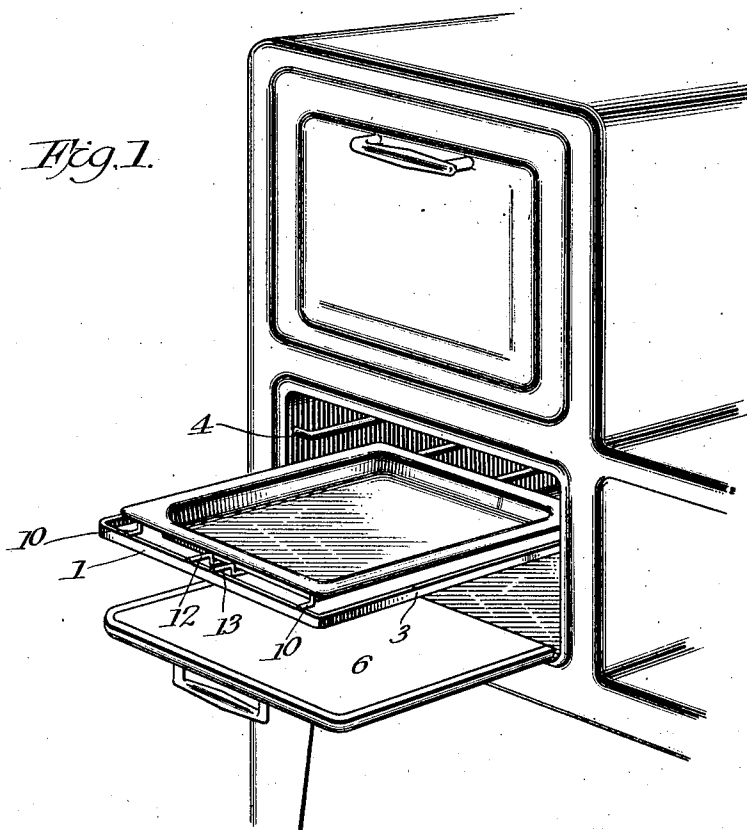


Fig. 2.

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Fig. 3.

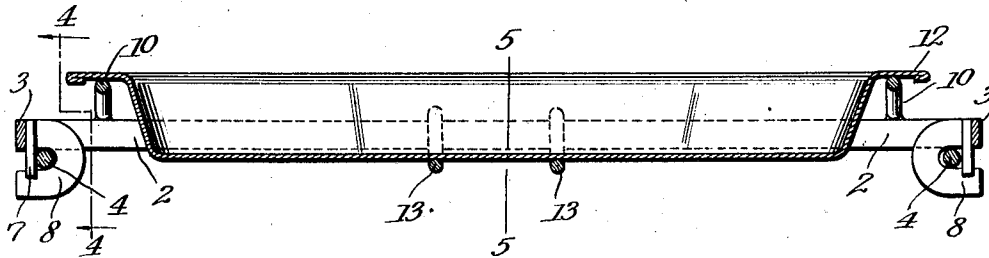


Fig. 4.

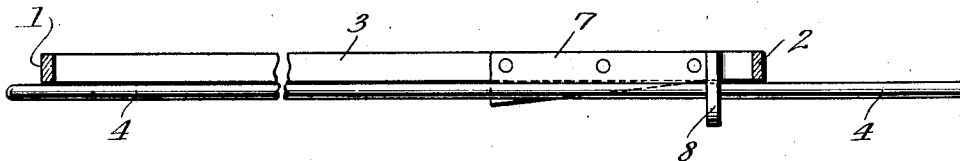


Fig. 5.

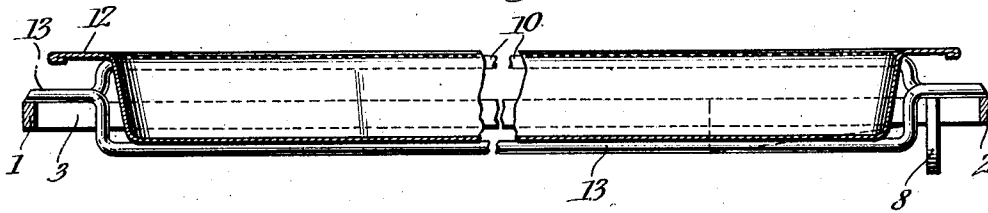
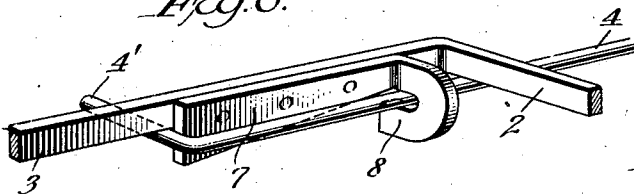


Fig. 6.



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OVEN SHELF

Application filed July 24, 1929. Serial No. 380,636.

The present invention relates to improvements in oven shelves or means for supporting food in ovens, and has for its object provision of means whereby a pan may be so supported by a slide as to have but limited horizontal movement in either direction relative to said slide.

It has been heretofore proposed to provide ovens with slides or shelves so supported so that they can be moved longitudinally of suitable guide devices within the oven through a door controlled opening, but so far as I am aware, such shelves or slides have not been provided with means which would insure that a "broiling" pan, for example, would be maintained in a substantially fixed position on the shelf or slide.

The invention is particularly adapted for use with ovens of gas ranges, but may be, of course, embodied in ovens of different types.

In the accompanying drawing:

Figure 1 is a perspective view of a portion of a gas range provided with an embodiment of the present invention.

Figure 2 is a perspective view of the improved shelf and a "broiling" pan detached.

Figure 3 is a transverse vertical section through the embodiment of the invention illustrated in Figures 1 and 2, showing the pan in position on the slide or shelf.

Figure 4 is a section substantially on the line 4—4 of Figure 3.

Figure 5 is a section substantially on the line 5—5 of Figure 3, and

Figure 6 is a perspective detail of a portion of the improved shelf and a section of an oven guide.

Referring to the drawings, in the several views of which corresponding parts are designated by the same reference characters, the improved shelf or oven slide comprises a frame including front and rear bars 1, 2, respectively, and connecting side bars 3. As shown, this frame may be formed as a unitary structure and the members thereof are preferably of substantially rectangular form in cross section.

The frame formed of the bars 1, 2 and 3 is provided with means for suitably engaging guide rails 4, such as are commonly pro-

vided with range ovens. The invention is not limited to any particular manner of engaging the shelf frame with the oven supporting guides, but, as shown, a means is provided by which tilting of the shelf frame when moved outward through the opening controlled by the oven door 6 will be prevented.

As shown, each of the side members 3 of the shelf or slide frame is provided on its inner face with an abutment plate 7 and a rail engaging guide member 8. The oven guide rails are preferably spaced slightly from the side walls of the oven and provided at both ends with laterally bent sections 4' attached either to the oven walls or to a separately formed supporting means adapted to be inserted within the oven. The abutments 7 will cooperate with the bent portions 4' at the forward ends of the oven guide rails to limit the extent of normal outward movement of the slide. As shown, however, the lower edges of the plate 7 are of cam shape, or slightly inclined, so that by exerting a slight lifting force on the forward end bar 1, the abutment 7 may be raised above the guide rail sections 4' and the shelf or slide entirely withdrawn from the oven.

In normal operation the members 8 will engage the oven guide rails 4 and act to maintain the shelf or slide frame in horizontal position, even though it is withdrawn to a considerable degree from the oven.

As shown, the abutment members 7 and oven rail engaging fingers 8 are united or formed integral and secured to the side bars 3 of the shelf or slide frame by rivets. These parts might, however, be formed integral with the frame side bars or secured thereto by welding, or in any other suitable manner.

According to the present invention the front and rear bars 1, 2, of the shelf or slide are connected by rods 10, which are spaced apart sufficiently to receive between them the body of a broiler pan. Each of the members 10 has a considerable portion of its length in a horizontal plane above that including the upper edges of the frame bars, and these raised portions support the opposite sections of the marginal flange 12, with

which such pans are commonly provided.

The end frame bars 1, 2, are further connected by a member or members 13, which are arranged to extend beneath and support the bottom of the broiler pan referred to. The ends of the members 10, 13, are connected to the frame bars 1, 2, by welding or other suitable means, and such rods not only serve to support the broiler pan as described, but it will be seen that said members also limit relative horizontal movement between the pan and the shelf or slide.

As shown in Figure 3, the pan may have a very limited horizontal movement in the direction of the length of the front and rear frame bars 1, 2, but as the members 10 are above the plane of the slide frame, the side walls of the pan will contact with said members if the pan is moved horizontally but slightly. Similarly, the vertically extending portions of the members 13 act as stops to limit movement of the pan on the slide frame in the direction of the length of the latter or of the space separating the front and rear frame bars 1, 2.

The arrangement described permits the slide or shelf and the "broiler" pan supported thereby to be simultaneously withdrawn bodily from the oven without danger of there being sufficient relative horizontal movement between said parts to disengage them.

The pan can, of course, be readily lifted from the seat-like support provided by the frame members 10, 13, when the slide is partially withdrawn from the oven, as well as when it is entirely removed therefrom.

It is believed that the manner of using and advantages of the improved construction will be readily appreciated from the foregoing description and drawings. It is to be understood that the latter are intended to illustrate it merely, and that unless specifically referred to in the appended claims the invention is not to be understood as limited to the exact arrangement illustrated. There can, of course, be considerable variation in the details shown without departing from the invention.

What I claim is:

1. An oven shelf comprising a frame including front and rear end bars, and two laterally spaced members connecting said bars and each having a portion extending above the horizontal plane of the upper edges of the bars, whereby they serve to support a pan and also to limit relative horizontal movement, in the direction of the length of the end bars, between such pan and the frame.

2. An oven shelf comprising a frame including front and rear end bars, two laterally spaced members connecting said bars and each having a portion extending above the horizontal plane of the upper edges of the bars, whereby they serve to support a

pan and also limit relative horizontal movement, in the direction of the length of the end bars, between such pan and the frame, and means for limiting relative movement between the frame and pan supported thereby in the direction of the length of the space between the end bars.

3. An oven shelf comprising a frame including front and rear end bars, two laterally spaced members connecting said bars and each having a portion extending above the horizontal plane of the upper edges of the end bars, whereby they serve to support opposite flanges on a pan and limit relative horizontal movement, in the direction of the length of said bars, between such pan and the frame, and a third member connecting said bars and including a depressed portion adapted to support the bottom of a pan and limit relative horizontal movement, in the direction of the length of the space separating said bars, between the pan and frame.

4. The combination with an oven having interior shelf supporting and guiding means adjacent opposite sides, of a shelf slidably engaged with said supporting means and constructed to support a pan with its bottom in a plane below that of the top of the shelf and to limit relative horizontal movement between itself and said pan in directions both transversely and longitudinally of the path of movement of the shelf on the supporting means.

5. An oven shelf comprising a frame adapted to support a pan so that the bottom thereof is below the plane of the top surface of the side bars of the frame and having means for limiting relative horizontal movement in any direction between the frame and pan supported thereby.

6. An oven shelf comprising a frame including front and rear end bars, two laterally spaced members connecting said bars, whereby the body of a pan may be positioned between and supported by contact with said members, the latter acting to limit horizontal movement of a pan on the frame in one direction, and means on the frame for limiting horizontal movement of the pan on the frame in a direction at right angles to that aforesaid.

7. An oven shelf comprising a frame including front and rear end bars, two laterally spaced members connecting said bars, whereby the body of a pan may be positioned between and supported by contact with said members, the latter acting to limit horizontal movement of a pan on the frame in the direction of the length of the end bars, and a member connecting the end bars of the frame at points between the attachment of the aforesaid members thereto and adapted to limit horizontal movement of a pan on the

frame in the direction of the length of said connecting members.

8. An oven shelf comprising a frame including front and rear bars, and a plurality
5 of members connecting said bars and shaped to support a pan with its bottom in a plane below that of the top of the shelf, said members limiting relative horizontal movement between the frame and a pan supported
10 thereby.

9. An oven shelf comprising a frame including front and rear bars, and a member connected at its ends to said bars and provided at intermediate points in its length
15 with vertically offset portions, the section of said member between said offsets constituting a support for the bottom of a pan when positioned on the shelf, and said offsets acting to limit relative horizontal movement between such a pan and the shelf toward the
20 front and rear bars, respectively.

In testimony whereof I have hereunto set my hand.

FRANK E. SEELEY.

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