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C. A. KUMMERMEHR ET AL

COMBINED STATIONARY AND ROTARY SHELF FOR STOVE OVENS

Filed May 11, 1927

Fig. 1.

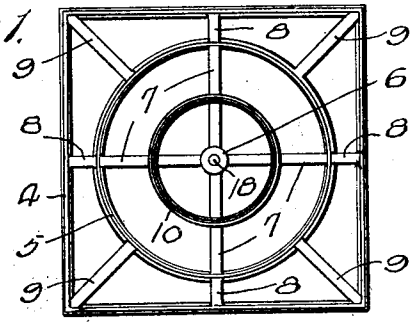
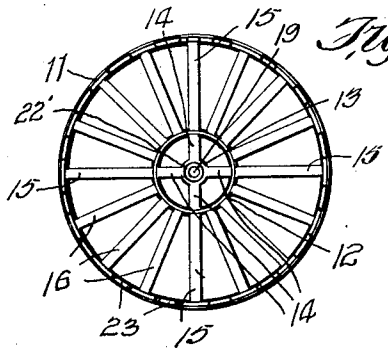


Fig. 2.



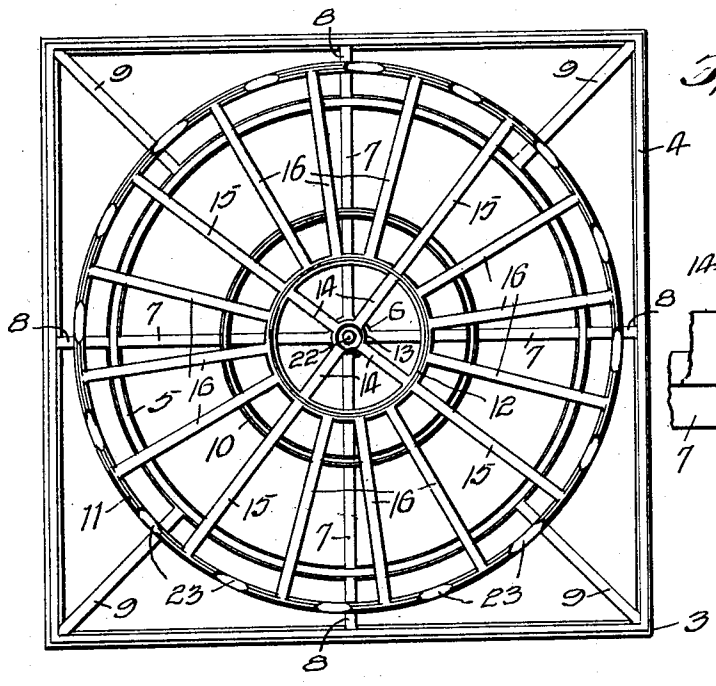


Fig. 3.

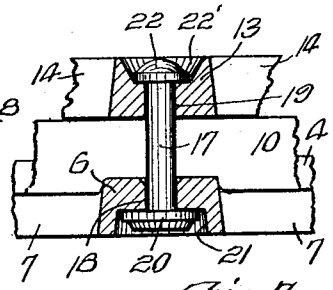


Fig. 7.

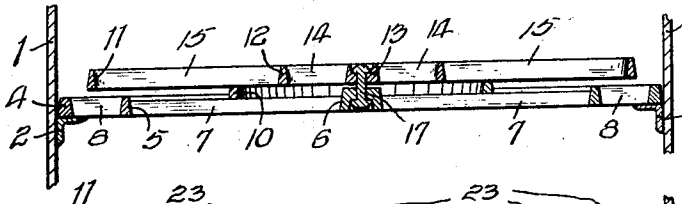


Fig. 4.

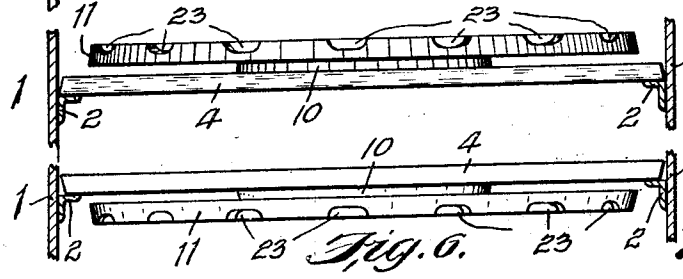


Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

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COMBINED STATIONARY AND ROTARY SHELF FOR STOVE OVENS.

Application filed May 11, 1927. Serial No, 190,605.

Our invention relates to a combined stationary and rotary shelf for stove ovens.

The object of our invention is the provision of a shelf for stove ovens to be supported by the usual shelf supports within the oven, and when supported thereby with one side up, it will provide a rotary shelf, and, when supported thereby with the other side up, it will provide a stationary shelf.

A further object of the invention is the provision of a stove oven shelf which consists of two shelf members, one of which is rotatably supported by the other, and which latter is supported by the usual oven shelf guides whether the device is to be used as a rotary shelf or a stationary shelf.

A still further object of the invention is to provide the rotary shelf member in the upper face of its outer ring member with a plurality of finger or tool engaging recesses to facilitate rotary movement of the rotatably mounted shelf.

A still further object of the invention is the provision of a bearing ring forming a part of the stationary shelf member upon which the rotary shelf member is rotatable.

A still further object of the invention is the provision of a pivot pin which will prevent spreading or detachment of the two shelf members.

A still further object of our invention is the provision of a combined stationary and rotary shelf for stove ovens, which possesses advantages in points of simplicity and efficiency, and, at the same time proves itself comparatively inexpensive in cost of manufacture.

With the above and other objects in view, the invention consists in the novel features of construction, arrangement and combination of parts herein after more fully described and finally pointed out in the claims hereto appended.

Drawings.

Fig. 1, is a top plan view of the stationary shelf and supporting member.

Fig. 2, is a top plan view of the rotary shelf member.

Fig. 3, is a top plan view of the shelf embodying the features of our invention.

Fig. 4, is a vertical sectional view of the device shown as supported in a stove oven with the rotary shelf disposed so as to receive cooking, roasting or baking utensils.

Fig. 5, is a side elevation of the device shown as supported in a stove oven with the rotary shelf member disposed so as to support cooking, roasting or baking utensils.

Fig. 6, is a side elevation of the device shown as supported in a stove oven in a reversed position to that shown in Figs. 4 and 5, so that the stationary shelf and supporting member can be used for supporting cooking utensils instead of the rotary shelf member.

Fig. 7, is a detail in sectional elevation of the pivot connection between the two shelf members.

In the drawings, the reference numeral 1 designates the side walls of a stove oven which are provided with the usual rest members 2 to support an oven shelf.

In carrying out the aim of our invention, we employ a combined stationary and rotatable stove oven shelf designated 3 which embodies the features of our invention. The stationary shelf section comprises a rectangular frame member 4 having the ring member 5 disposed within the borders of frame member 4. A spider is arranged within the borders of the ring member 5 and the rectangular frame 4 and consists of a central head portion 6 from which bars 7 extend to the ring member 5 and then continued from the ring member 5 by the extensions 8 to the four sides of the frame 4. Spider bars 9 also extend from the ring frame member 5 to the four corners of the frame member 4. This arrangement provides an efficient stationary grate like shelf for supporting various kinds of baking utensils in the usual manner within a stove oven, as will be apparent in Fig. 6. The spider bars 7 carry an endless supporting ring 10 which extends upwardly above the upper plane of the spider bars 7, 8 and 9 of the stationary shelf section to act as a balancing support for the rotary shelf section hereinafter described.

The rotary shelf section comprises an outer ring frame member 11, which is of less diameter than the stationary rectangular frame member 4, as shown in Figures 3, 4, 5 and 6, and a smaller concentrically arranged ring member 12 disposed within the border of the outer ring member 11. A spider is arranged within the border of the inner ring member 12 and consists of a central head portion 13 from which bars 14 extend to the inner ring member 12 and then continued from the inner ring member 12 by the extensions 15

to the outer ring member 11. Spider bars 16 also extend radially from the inner ring member 12 to the outer ring member 11 to provide in connection with the bars 14 and 15, a grate surface.

The rotary shelf section is mounted upon the bearing ring 10 of the stationary square shelf section and the two sections are connected by means of a loosely fitted pivot pin 17, which passes upwardly through an opening 18 in the head portion 6 of the square shelf section and then passes upwardly through an opening 19 in the head portion 13 of the circular rotary shelf section and which acts as a pivot for the rotary shelf section to revolve around as well as maintaining the proper relation between the two shelf sections. The lower end of the pivot pin 17 is provided with a head 20 which is receivable in a recess 21 in the head portion 6 of the square shelf section and the upper end of the pivot pin 17 is provided with a head 22 which is receivable in a recess 22′ in the head portion 13 of the rotary shelf section, as clearly shown in Fig. 7. The heads of the pin 17 prevent displacement of the pin which assisted by the supporting ring 10 prevent wabbling or tilting movement of the rotary shelf section upon the supporting ring 10 of the stationary square shelf section. The supporting ring 10 is preferably disposed inwardly of the midway point between the pivot pin 19 and the rectangular frame member 4 as it offers little friction to the rotary member at this point allowing the rotary shelf section to be more easily revolved than when it is positioned further outward.

The upper face of the outer ring member 11 of the rotary shelf is provided with a suitable recess 23 between each spider bar 16 thereof so that the rotary shelf may be readily revolved by the operator, either by the fingers of the operator, or by a convenient tool.

In Figures 4 and 5, the stationary shelf section is shown as supported upon the rests 2 in reversed relation to that shown in Fig. 6, whereby the rotary shelf section is positioned above the stationary shelf section for supporting the utensils instead of the stationary shelf section, as illustrated in Fig. 6.

From the foregoing description, it is evident that we have designed a shelf for use in ordinary gas or other stove ovens, a shelf that may be quickly placed in the oven, and effectually serve as a rotary shelf, when installed as shown in Fig. 5, thereby enabling the cook to revolve the circular shelf to bring the utensils to the convenient reach of the cook, so as to prevent burning of the cook's hands, and more important to enable the utensils to be moved with the shelf to various parts of the oven to receive the desired heat in order that the different sides of the different articles of food may be evenly cooked or may be cooked in the manner desired.

When, however, it is not desired to use the rotary shelf section for supporting utensils when cooking or baking, the shelf may be reversed from the installation shown in Fig. 5, to that shown in Fig. 6, which will provide a stationary shelf for supporting the utensils instead of a rotary shelf, as shown in Fig. 5. When the shelf is installed in an oven, as shown in Fig. 6, the stationary shelf section is the upper or supporting shelf while the rotary shelf section is disposed below said shelf section and of no service at all not even as a supporting member, but when it is installed as shown in Fig. 5, the rotary shelf section becomes a support for the utensils and the stationary shelf section merely becomes a support for the rotary shelf section.

The many advantages of the herein described invention will readily suggest themselves to those skilled in the art to which it appertains.

From the foregoing description, it is evident that a simple device for this purpose has been disclosed, but it is to be understood that we do not desire to restrict, or limit ourselves to the very details of the construction shown and described, which is merely illustrative, it being obvious that changes, not involving the exercise of invention, may be made without conflicting or departing from the spirit of the invention within the scope of the appended claims.

What we claim is:

1. In a shelf structure for stove ovens, a rectangular shelf section, a supporting ring fixed thereto having its upper plane disposed above the upper plane of the rectangular shelf section, a circular shaped shelf section concentrically mounted upon said supporting ring, a pivot pin carried by the rectangular shelf section and passing through said circular shaped shelf section around which the circular shaped shelf section is revoluble, a head formed at each end of the pin and receivable in recesses formed in both the rectangular and circular shaped shelf sections to prevent tilting displacement of the circular shaped shelf section upon the supporting ring and to prevent separation of the two shelf sections and marginal recesses formed in the upper face of the circular shaped rotary shelf section.

2. In a shelf structure for stove ovens, a rectangular frame member, a ring member disposed within the borders of the rectangular frame member, a central head member, spider bars connecting the head member with the ring member, spider bars connecting the ring member with the rectangular frame member, a supporting ring fixed to the spider bars connecting the head member with the ring member and having its upper

plane disposed above the upper plane of the ring member the rectangular frame member and said spider bars, a circular shelf having an outer and an inner ring member, a central head member, inner spider bars connecting the head member with the inner ring member, outer spider bars connecting the inner ring member with the outer ring member, said circular shelf having its outer spider bars mounted upon the aforesaid supporting ring and a pivot pin connecting the circular shelf with the central head member so that the circular shelf will be rotatable upon the supporting ring and recesses formed in the upper face of the outer ring member of the circular shelf.

In testimony whereof we have hereunto affixed our signatures.

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