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J. C. KEAVEY ET AL

SHELF OPERATING MEANS FOR OVENS

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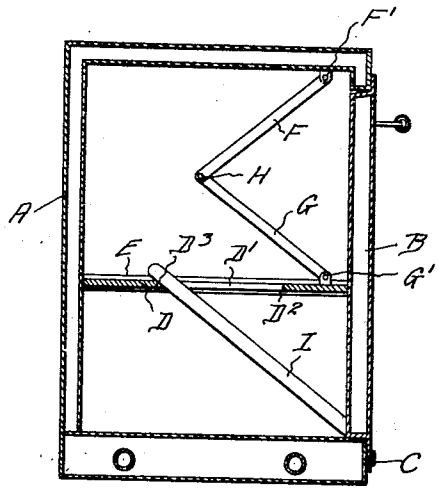


Fig. 1

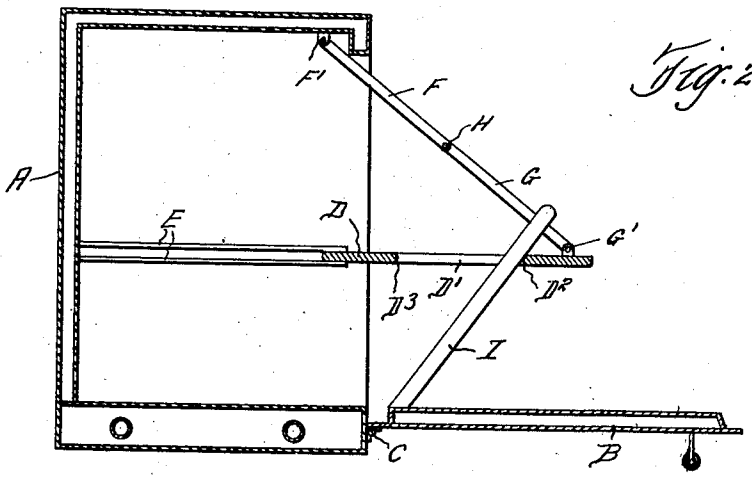


Fig. 2

Inventors
J. C. Keavey
E. J. Reese.

By Hull Brock & Wat.
Attys.

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UNITED STATES PATENT OFFICE.

JOHN C. KEAVEY, OF SOUTH EUCLID, AND EDWARD J. REESE, OF CLEVELAND, OHIO.

SHELF-OPERATING MEANS FOR OVENS.

Application filed May 28, 1921. Serial No. 473,513.

To all whom it may concern:

Be it known that we, (1) JOHN C. KEAVEY, (2) EDWARD J. REESE, citizens of the United States, residing at (1) South Euclid, (2) Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Shelf-Operating Means for Ovens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates generally to stoves and more particularly to an attachment thereto whereby the shelf or pan ordinarily arranged in the oven will be moved outwardly and inwardly as the door of the oven is opened and closed. At the present time, most ovens are provided with a shelf or pan supported upon suitable guides, and in order to get hold of the pan or other container upon said shelf or support it has been necessary to either pull the shelf or pan out or reach into the oven in order to take hold of the articles arranged upon the said shelf or pan and in doing so burns are frequently inflicted upon the person reaching into the oven and it is with the object of avoiding these defects that the present attachment has been devised and which is capable of use in connection with any and all types of stoves but is particularly adapted for use in connection with gas stoves in which the oven door opens downwardly.

With these various objects in view the invention consists in the novel features of construction hereinafter fully described and set forth in the appended claims.

In the drawings forming part of this specification, Fig. 1 is a sectional view of an oven provided with our attachment, the door of said oven being closed; and Fig. 2 is a similar view showing the door open and the shelf projected outwardly to its full extent. In carrying out our invention we employ an oven A having a door B hinged thereto at the point C. D indicates a shelf or pan supported upon the usual type of guides E connected to the sides of the oven. F and G indicate links hinged together at H, the link F being pivotally connected to the top of the oven as indicated at F′ and the lower end of the link G is pivotally connected to the forward end of the slide or pan as shown at G′. I indicates an arm connected to the inner side of the door B near each corner adjacent the hinge, said arm extending at substantially 45° from the face of the door as indicated and the free end of each arm works in slot D′ produced in the sides of the pan or shelf, said slot extending from the point D^2 to the point D^3 which are respectively adjacent to the front and rear ends of the shelf or pan.

In operation, when the door of the oven is closed the valve or pan will rest entirely within the oven and the links F and G will be folded inwardly and the operating arms I will also extend inwardly or rearwardly. When the door is opened however, the arm I working in the slot D′ will contact with the edge D^2 and slide the pan or shelf horizontally outwardly as shown in Fig. 2 and the links F and G will be carried outwardly also and serve to support the outwardly projected end of the valve or clamp and it is obvious that any pan or other article arranged upon the shelf will be carried outwardly beyond the oven proper and consequently access can be had thereto without danger of coming in contact with the heated portion of the oven.

When the door is raised for closing, the arms I are carried inwardly contacting with the edges D^3 and sliding the door inwardly to the position shown in Fig. 1 and at the same time the links F and G are folded into the oven.

It will thus be seen that by means of our improved attachments we are able to project the shelf or pan completely clear of the oven and support the same in a horizontal position while so projected so that access to anything supported upon the shelf or pan can be had thereto without danger of coming in contact with any heated portion of the oven or stove. While we have shown our invention applied to a gas oven in which the door opens downwardly, it will of course be understood that the broad principle of the invention can be applied to an oven in which the door opens to the side and it will also be understood that the invention can be applied to coal burning stoves as well as gas stoves.

Having thus described our invention, what we claim is:

1. The combination with an oven having guides on the sides thereof intermediate the top and bottom of said oven, of a shelf sliding in said guides, said shelf being longitudinally slotted at one side, a door hinged at its bottom to the bottom of said oven, an inclined arm connected to the oven

door and extending in the slot in the shelf, and means for supporting the free end of said shelf when moved outwardly.

2. The combination with an oven having guides on the sides thereof intermediate the top and bottom of said oven, of a shelf slidable in said guide and subdividing said oven into upper and lower compartments, said shelf having a longitudinal slot at one side thereof, a door hinged at its bottom to the bottom of said oven, an inclined arm connected to said door and extending into the slot in the shelf and foldable supporting links connecting the top of the oven and free end of said shelf, at a point beyond the outer end of the slot.

In testimony whereof, we hereunto affix our signatures.

JOHN C. KEAVEY.
EDWARD J. REESE.