

J. E. MICHAUD & F. McGRATH.
OVEN SHELF.

APPLICATION FILED FEB. 5, 1910.

977,422.

Patented Nov. 29, 1910.

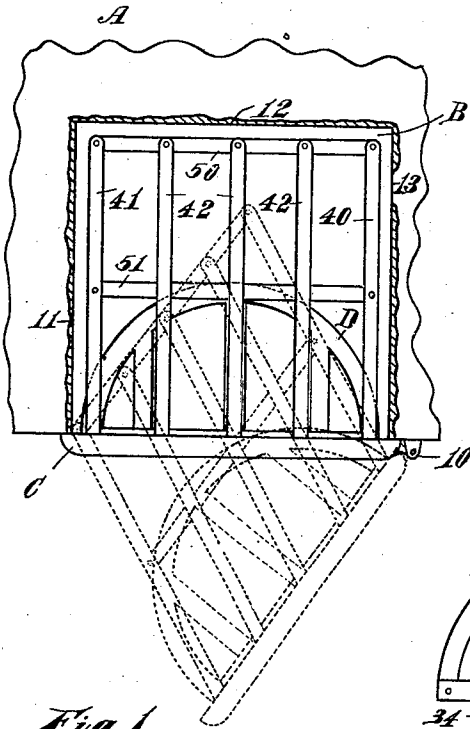


Fig. 1.

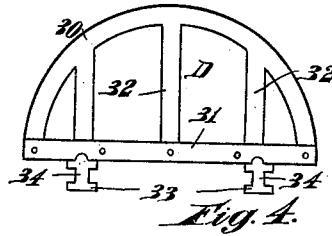


Fig. 4.

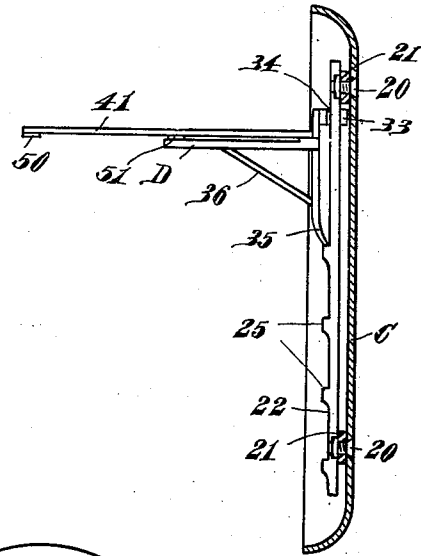


Fig. 2.

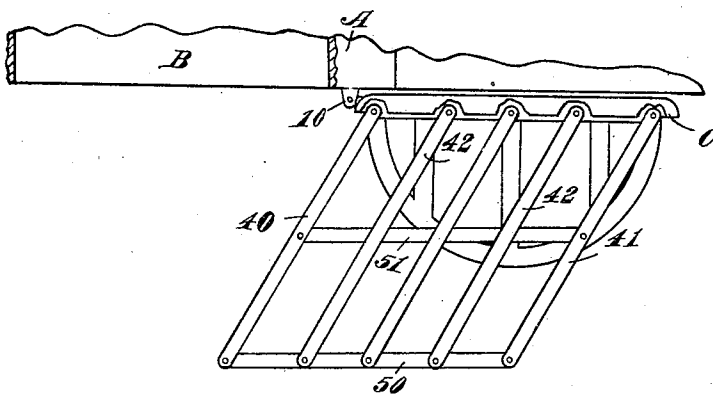


Fig. 3.

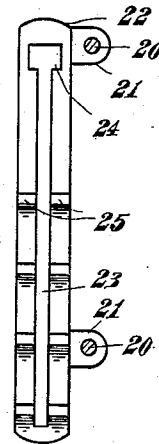


Fig. 5.

WITNESSES:

Sudgar A. Nicol.
Vera L. Lusk.

INVENTORS
Joseph E. Michaud
Francis McGrath
BY
Harold W. Pearson
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOSEPH E. MICHAUD AND FRANCIS McGRATH, OF LAWRENCE, MASSACHUSETTS.

OVEN-SHELF.

977,422.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed February 5, 1910. Serial No. 542,273.

To all whom it may concern:

Be it known that we, JOSEPH E. MICHAUD, a citizen of Canada, and FRANCIS McGRATH, a citizen of the United States, both residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Oven-Shelves, of which the following is a specification.

Our invention relates to stoves, and it has especial reference to the shelves or racks which are generally used in ovens for the purpose of supporting the articles which are to be cooked. Such shelves are usually stationary, or are movable with difficulty. For that reason, in order to place articles thereon to be cooked, or to remove such articles therefrom, it is necessary to reach well into the oven with the hands. In so doing, there is great danger of burning the hands, and, as the face of the attendant is brought directly over the hot stove, it is a very disagreeable process. Moreover, it takes time to open the door and withdraw the article to be examined and during all this time the face of the attendant is subjected to the intense oven heat, while the oven itself is rapidly cooled off with the door open.

The object of our invention is to provide an oven shelf which is attached to the oven door and which will be withdrawn from the oven when the door is opened. Thereby, the oven door can be swung well back and the shelf will then extend away from the stove in such a position that the articles thereon can be easily reached or removed, and in fact are readily under control for any purpose. The door can be instantly opened, the articles inspected, and the door closed, thus saving a great deal of heat.

Our shelf is adjustable vertically and can be easily removed entirely from the oven door or attached thereto. It can be readily removed from one stove to another and it can be attached to the door of a stove of any make.

In the drawings, Figure 1 is a top view in section of an oven, and shows in full lines, our shelf in place therein, and shows in dotted lines, the position it assumes to clear the side of the oven as the door is being opened. Fig. 2 is a side view of a section of the oven door with our shelf in place. Fig. 3 shows, from the top, the oven door with our shelf attached swung back against the stove as far as possible. Fig. 4 is a top view

of the casting showing how it may be used without slats, and Fig. 5 shows one of the supporting stands.

A indicates the body of the stove and B the oven therein. C is an oven door hinged to stove A at 10. Door C is preferably dishd outward as shown in Fig. 2.

Attached to the inside of the oven door C by means of bolts or screws 20 and dogs 21 are the vertical stands 22. Their distance apart is preferably about $\frac{2}{3}$ the width of the oven door.

Each stand 22 is made of a strip of metal and is held away from the inside of door C perhaps one quarter of an inch by dogs 21. Each has a vertical slot 23 which is enlarged at the upper end to form a key hole 24. On one side or preferably on both sides of slot 23 are a series of projecting teeth which are preferably flat at their tops and slanting at the bottom. These stands can be easily bolted to a stove door of any make. It is necessary only to bore holes there-through, and attach the stands by means of stove bolts 20. Thereafter they may remain on the door as they occupy very little space.

To support the rack, we use a supporting casting D which has a flat curved track connected by a base bar 31 and preferably having strengthening braces 32, 32. The top surface of this casting D including track 30, base bar 31, and braces 32, 32 should be flat, smooth, and level. Track 30 is made semi-circular so as to clear the side of oven B when the oven door is opened. Base bar 31 should be the thickness of an oven rack slat higher than the rest of the casting. Projecting from base bar 31 are necks 34 which are slightly smaller than adjusting slot 23 and terminate in heads 33 which should be slightly smaller than key holes 24. Depending from casting D directly below heads 33 are feet 35 which curve inward so as to rest upon the top of any set of adjusting teeth 25.

Preferably, we provide two diagonal braces 36 which extend diagonally upward one from each foot 35 to a strengthening brace 32. These braces 36 thereby assist in supporting the weight of the whole oven rack and the articles thereon.

It is evident that by lifting the outer edge of track 30 so that feet 35 will clear teeth 25, the casting may be slid down or up and rested at any point by engaging feet 35 with any set of teeth 25. It may be entirely

removed by raising it until head 33 can pass out through key hole 24.

The oven rack proper comprises the outer projecting slats 40 and 41 which are pivoted at each end of base bar 31 and are pivotally connected together by connecting slat 50. Where these slats 40, 50 and 41 are pivoted together, their ends are preferably rounded. We may use one or more additional projecting slats 42 parallel to 40 and 41 and pivoted respectively to connecting slat 50 and to base bar 31. We also use a middle connecting or supporting slat 51 which runs parallel to slat 50 and is pivoted to the outside projecting slats 40 and 41. This supporting slat 51 should be pivoted at such a point that it will always rest upon curved track 30 of casting D. As it rests upon track 30, it supports slats 40, 41 and 42 under which it passes, and through them, it supports connecting slat 50.

As the oven door C is opened, the joint between projecting slat 41 and connecting slat 50 will come in contact with the adjoining side 11 of oven B and as the door is further opened, the contact will distort the rack to the shape shown by the dotted lines in Fig. 1. When it has reached the outer edge of side 11, the distortion will cease and the rack will remain in that shape as shown in Fig. 3. When closing the door, the rack will swing clear into the oven until the joint between connecting slat 50 and projecting slat 40 strikes the back 12 or the other side 13 of the oven. As the closing continues, the rack will be forced back into substantially its original shape.

If, while it is outside the stove, the rack is pushed out of its normal distorted position, it will resume that position as the door is being closed, for connecting slat 50 will strike the outer end of side 11, and, as the closing continues, the rack will be brought back to the proper position to reënter the oven.

It is evident that two or more shelves, one above the other, may be used in the same oven if desired and that both will operate as readily as one alone.

If desired, the slats 40, 41, 42, 50 and 51 may be removed as shown in Fig. 4, or omitted and the casting D used as a small oven shelf operative with the door. It is also evident that the shape and size of the top of this casting may be changed if desired.

What we claim as our invention and desire to cover by Letters Patent is:—

1. The combination in a stove, of an oven,

and an oven door therefor, combined with a horizontal base bar attached to said door and projecting slats pivoted thereto, together with one or more connecting slats pivoted to the projecting slats.

2. The combination in a stove, of an oven, with a door therefor, and a casting which comprises a curved track and a base bar horizontally attached to the door, projecting slats pivoted at one end to the base bar, a connecting slat which pivotally connects the other ends of the projecting slats, and a supporting slat intermediate the base bar and the connecting slat which passes under the projecting slats and is pivotally attached thereto and which rests upon the top of the curved track of the casting as described.

3. The combination in a stove, of an oven, and a door therefor, with a horizontal base bar detachably attached to said door, and a horizontal automatically collapsible oven rack pivotally attached to said base bar.

4. The combination in a stove, of an oven, and a door therefor, with a horizontal base bar detachably attached to said door and vertically adjustable thereon, and a horizontal oven rack which is automatically and horizontally collapsible, and is pivotally attached to said base bar.

5. The combination in a stove, of an oven, with a door therefor, a supporting casting adjustably and detachably carried by said door, and a horizontal automatically collapsible oven rack pivotally attached to said casting and carried thereby.

6. The combination in a stove, of an oven, with a door therefor, vertical stands carried on the inside of the door, each stand having a longitudinal adjusting slot with a keyhole at the top thereof and a series of adjusting teeth, a casting which is made with a curved track, with a base bar, with strengthening braces and diagonal braces, with necks adapted to engage the slots in the stands and which terminate in heads adapted to pass through the keyholes, and with feet adapted to engage the teeth on the stands, and a horizontal collapsible oven rack which comprises connecting slats and projecting slats pivotally attached thereto and to the base bar and supported by the track as described.

In testimony whereof we hereto affix our signatures in presence of two witnesses.

JOSEPH E. MICHAUD.
FRANCIS McGRATH.

Witnesses:

HELEN V. FLEMING,
GARDNER W. PEARSON.