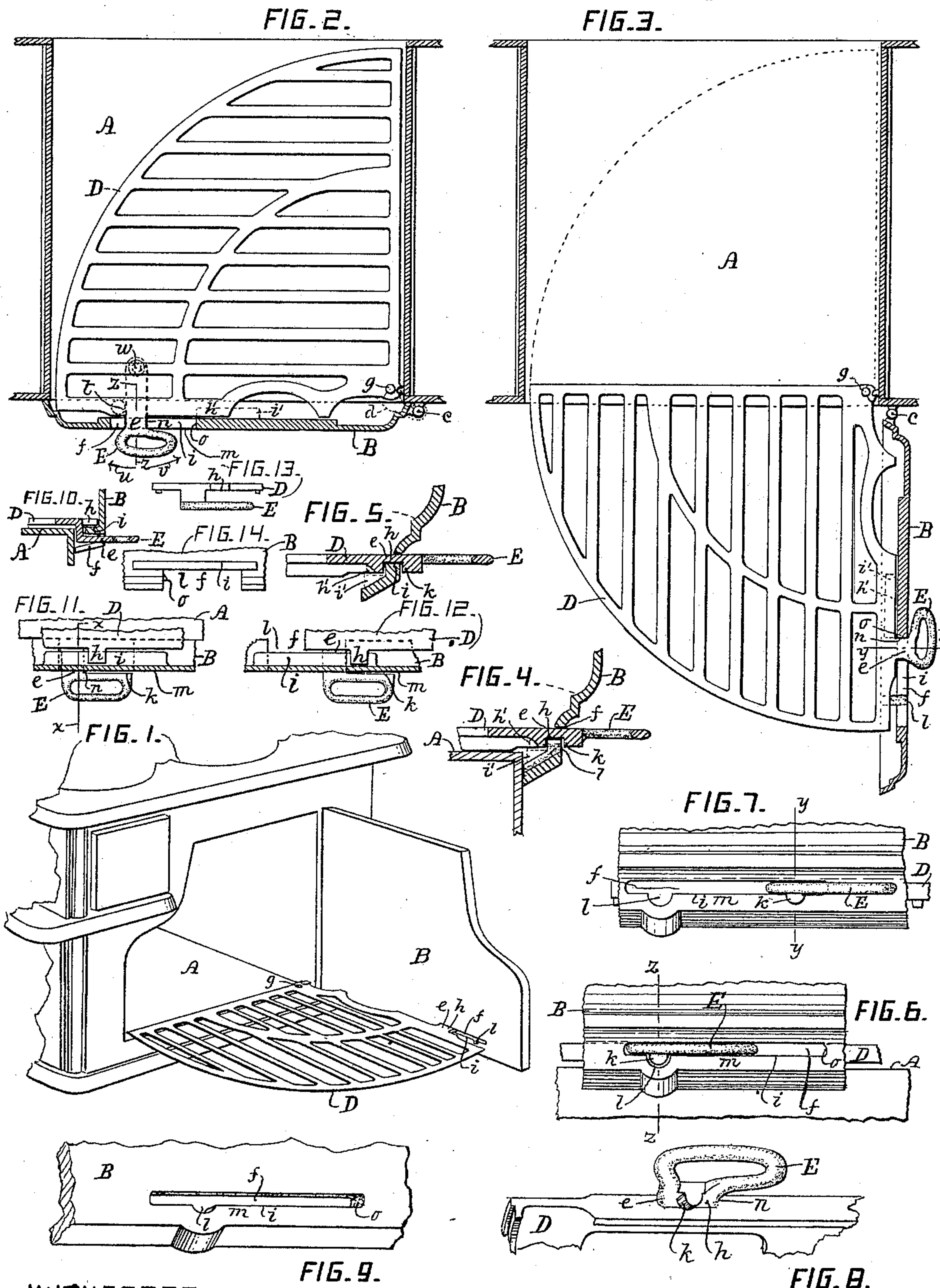


(No Model.)

J. JEWETT.
OVEN FOR STOVES.

No. 436,788.

Patented Sept. 23, 1890.



WITNESSES.

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OVEN FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 436,788, dated September 23, 1890.

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To all whom it may concern:

Be it known that I, JOSIAH JEWETT, a citizen of the United States, residing in the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Ovens for Stoves and Ranges, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to such stoves and ranges as have an oven furnished with a laterally-swinging door and with a segmental slide, shelf, or grate arranged to be slid part way out and in on the oven-bottom in an arc
15 of a circle or a curved course.

The general objects of this invention are to construct the oven-door with an opening at its lower part, and the oven-slide with a handle extending through said opening and outside of the oven when the door is closed: First, so that the door can be freely opened without drawing out the slide, and that when the door is closed the slide can be conveniently drawn out by its handle and the door thereby
25 simultaneously opened; second, so that when the door is opened by drawing out the slide by its handle the drawn-out side of the slide will be supported by the opened door; third, so that when the door is opened by drawing
30 out the slide by its handle the slide will be so automatically locked to or engaged with the door that the two cannot be carelessly disengaged while the door remains far open, and, fourth, so that when the door is opened by
35 drawing out the slide the opening of the door and the drawing out of the slide shall be automatically stopped when the slide is drawn out to a predetermined extent. These objects are attained by the means illustrated in the
40 accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a cooking stove or range having its oven furnished with one form of my invention, and showing the oven-slide drawn out and its
45 drawn-out side supported by the opened oven-door. Fig. 2 is a plan and partial section of a similar oven door and slide with the door closed and a handle on the slide and extending therefrom through and beyond an aperture, slot, or opening in the door, and suited
50 to permit the door to be opened freely with-

out drawing out the slide, and so that the door will be opened by drawing out the slide by its handle extending outside of the door. Fig. 3 is a plan and partial section of the
55 same, showing the slide pivoted or mounted to move in an arc eccentric to that of the swing movement of the door, and the slide drawn out and the door opened as by drawing out the slide by its handle extending out-
60 side of the door, and the drawn-out side of the slide supported by bearing on a lower part of the door, and the slide so locked to or engaged with the door that the slide cannot
65 be accidentally or otherwise readily disengaged from the door while the slide remains far drawn out, and the opening movement of the door and the drawing-out movement of the slide automatically stopped by the meeting of
70 stops on the slide and door. Fig. 4 represents a vertical section of parts of the same, on a larger scale, at about the line *z z* in Figs. 2 and 6. Fig. 5 is a similar section of parts of the same at the line *y y* in Figs. 3 and 7. Fig. 6 is an elevation showing the outside of a part of the lower
75 portions of the oven-door, and the handle of the slide when the door is closed, as in Figs. 2 and 4. Fig. 7 shows in elevation a part of the outer side of the lower portion of the door and the handle of the slide when the door is
80 opened, as shown in Figs. 1, 3, and 5. Fig. 8 shows the under side of the handle on the oven-slide, and Fig. 9 shows the slot through the lower portion of the oven-door represented in Figs. 2 and 3. Figs. 10, 11, 12, 13,
85 and 14 illustrate a modification of the parts by which the outer side of the slide is supported by and engaged with the door when the door is opened by drawing out the slide, Fig. 10 being a section at the line *x x* in Fig. 9
90 11, which is a sectional plan of adjacent parts of the oven-bottom, door, and slide, with its handle when the door is closed. Fig. 12 is a plan of the same parts of the door and slide with its handle when the door is opened
95 by drawing out the slide. Fig. 13 is a front elevation of a part of the slide with its handle, and Fig. 14 is an elevation of the inner side of the part of the door with which the slide is engaged in Fig. 12.
100

A is the oven-bottom; B, the oven-door, hinged at *c* to swing to and fro laterally, and

furnished on its outer side with its usual handle, lug, or knob, and D the quadrant-shaped or segmental slide, which can be slid out and in on the oven-bottom in a curved course or arc of a circle eccentric to the course of the swinging movement of the door.

E is a handle, which is on and carried by the slide, and which when the door is closed extends in any suitable shape outside of the door through a slot, notch, or opening *f* in the lower part of the door, so as to permit the door to be freely opened and closed without moving the slide out or in, and so as to allow a person to take hold of the handle where it extends outside of the closed door, and thereby draw out the slide and simultaneously open the door. The opening *f* has somewhat greater size and horizontal extent than the handle E on the slide, and is shown in Figs. 1, 6, 7, and 9 in the form of a slot, and in Fig. 14 in the form of a recess in the lower edge of the door, which recess may extend as an opening of any suitable size and shape along the door. The shank *e* of the handle E has much less horizontal extent than the opening *f*, so as to permit a considerable sliding movement of the oven-slide or its handle to and fro along the door while the door is being opened and closed simultaneously with or by the drawing out and pushing in of the oven-slide.

In Figs. 2 and 3 the segmental slide D is shown as pivoted at a point *g* away from or eccentric to the hinge *c* of the door, so that in drawing out the slide by its handle extending outside of the door, the outer side of the slide is compelled to slide or move along the door, as illustrated by Figs. 2 and 3, because the centers of the movements of the door and slide are thus separated or eccentric to each other. Whenever the segmental slide D is not pivoted in the oven but is entirely loose and free to be moved therein in varying directions, upon then drawing out the slide and simultaneously opening the door by the handle E, extending through the opening *f* and outside of the door, the outer side of the slide will generally have a considerable movement inward along the door in thus drawing out the slide, because of the retarding action of the weight and inertia of the slide, with or without a load of baking thereon; or in such case the slide may have the same movement along the door imparted by the hand of the person who draws out the slide by its handle, and thereby simultaneously opens the door. On the oven-slide is a bearing *h*, and a corresponding bearing *i* is on the door and lower than the bearing *h*. The bearings *h* and *i* are so constructed and arranged and are of such extent that when the slide is drawn out by its handle extending outside of the door and the door is thereby opened, the part *h* will then bear upon and be supported by the bearing *i*, about as indicated by Figs. 1, 3, 5, 7, and 12, so that thereby the oven door will support the drawn-

out side of the slide whatever shall be the length of the sliding movement of the supporting-bearings *h* and *i* along each other.

In the construction shown by Figs. 1, 2, 3, 4, 5, 6, 7, 8, and 9, the shank *e* of the handle E serves as the bearing *h* on the slide, and the lower side of the slot or opening *f* serves as the bearing *i* on the door.

In the modification illustrated by Figs. 10, 11, 12, 13, and 14, the part *h* on the slide is away from the handle E and its shank, and the bearing *i* is on the inner side of the door, as might be the case in Figs. 2, 3, 4, and 5, and as indicated in those figures by dotted lines at *h'* *i'*.

In order to automatically lock the slide to the door so that the two will not be accidentally disengaged when the door is opened by drawing out the slide, the slide is made with a locking catch or bearing *k*, which is outside of and opposite to an opening *l* in the door when the door is closed, as illustrated in Figs. 4, 6, and 11, so as to then freely permit the door to be opened and closed without moving the slide, and which part *k* travels in one direction along the outside of a bearing *m* on the door as the door is opened by drawing out the slide, as indicated by Figs. 5, 7, and 12, and travels in the reverse direction to opposite the opening *l* in closing the door and simultaneously shoving in the slide. This automatic locking of the slide to the door by the movement of the part *k* of the slide along the part *m* of the door as the slide is drawn out by its handle and the door thereby opened, occurs whether the slide is loose in the oven or is pivoted therein, as at *g*; but in the latter case the pivoted slide cannot be even willfully disengaged from the door while the slide remains far drawn out.

To automatically stop the simultaneous drawing out of the slide and opening of the door when the slide is pivoted at *g* and is drawn out to a certain extent, I arrange on the slide or its handle and on the door-stops, so as to thereby prevent drawing the slide too far out of the oven. This is illustrated by Fig. 3, wherein the stop *n* on the shank of the handle of the slide is shown as arrested by the stop *o* at the inner end of the opening through the door.

In carrying out this invention the handle E, which is on and carried by the quadrant-shaped or segmental slide D is commonly integral with or firmly secured to the slide, as shown by full lines in the drawings; but the handle can be secured to the slide so as to have a limited movement thereon, as indicated by broken lines in Fig. 2, by being pivoted to the slide at *w*, so as to have a movement to and fro in the directions of the arrows *v* and *u*, and limited in the direction of the arrow *u* by a stop at *t* on the slide.

Whenever the segmental slide D is pivoted to the door or concentrically with its hinge, as by having fast on the slide a lug extending to and around the axis of the door-hinge

c, as indicated by dotted lines at *d* in Fig. 2, the slide will not then have movement along the door, as the slide is drawn out and the door simultaneously opened by the handle E, 5 extending through the opening *f*; but in that case the bearings *h* and *i* will serve to support the drawn-out side of the slide, and the door can be locked to and unlocked from the slide by the parts *k* and *m* by moving the 10 handle E to and fro by hand along the door when the handle is pivoted to the slide, as indicated in Fig. 2 at *w*, and above specified.

I claim as my invention—

1. The combination, with the oven furnished with the door hinged to turn laterally 15 and having the opening in its lower part, of the quadrant-shaped slide on the oven-bottom, the handle permanently secured to the slide and smaller than said opening and extending freely through it and outside of the 20 door when closed and permitting the door to be freely opened and closed without moving said handle or slide, and the fixed bearing on the door to support the slide when it is drawn 25 out and the door simultaneously opened by means of said handle extending through said opening and outside of the door, substantially as set forth.

2. The combination, with the oven furnished with the door hinged to turn laterally 30 and having the opening in its lower part, of the quadrant-shaped slide on the oven-bottom and having the handle permanently secured to the slide and smaller than said opening and extending freely through it and outside 35 of the door when closed, the slide-supporting bearing *i* and locking-bearing *m* on the door, and the correlative bearings *h* and *k* on the slide, substantially as described.

40 3. The combination, with an oven furnished with a door hinged to turn laterally and having an opening at its lower part, of a segmental slide on the oven-bottom and pivoted

at *g* eccentrically to the hinge *c* of the door, and having a handle extending through said 45 opening and outside of the door when closed, substantially as described.

4. The combination, with an oven furnished with a door hinged to turn laterally and having an opening at its lower part, of a segmental slide on the oven-bottom and pivoted 50 eccentrically in relation to the hinge of the door, and having a handle smaller than said opening and extending through it and outside of the door when closed, and stops *n* and 55 *o*, one on the slide or its handle and the other on the door, as described.

5. The combination, with an oven furnished with a door hinged to turn laterally and having an opening *f* at its lower part, of the quadrant-shaped slide on the oven-bottom and pivoted 60 eccentrically in respect to the hinge of the door, and having the handle E smaller than said opening and extending through it and outside of the door when closed, and the 65 slide-supporting and locking bearings *i* and *m* on the door and *h* and *k* on the slide or its handle, substantially as set forth.

6. The combination, with the oven furnished with the laterally-swinging door B, having the 70 opening *f* at its lower part, of the segmental slide D on the oven-bottom and pivoted eccentrically in relation to the hinge of the door, and having the handle E smaller than said opening and extending through it and outside 75 of the door when closed, and the slide-supporting and locking bearings and stops *i*, *m*, and *o* on the door and *h*, *k*, and *n* on the slide or its handle, substantially as set forth.

In testimony whereof I hereunto set my 80 hand, in the presence of two subscribing witnesses, this 28th day of December, 1887.

JOSIAH JEWETT.

Witnesses:

ELLIOTT C. MCDUGAL,
JOHN L. DANIELS.