Nov. 27, 1923. 1,475,838

J. F. LAMB

HINGE FOR OVEN DOORS

Filed Aug. 1, 1922

Fig. 1.

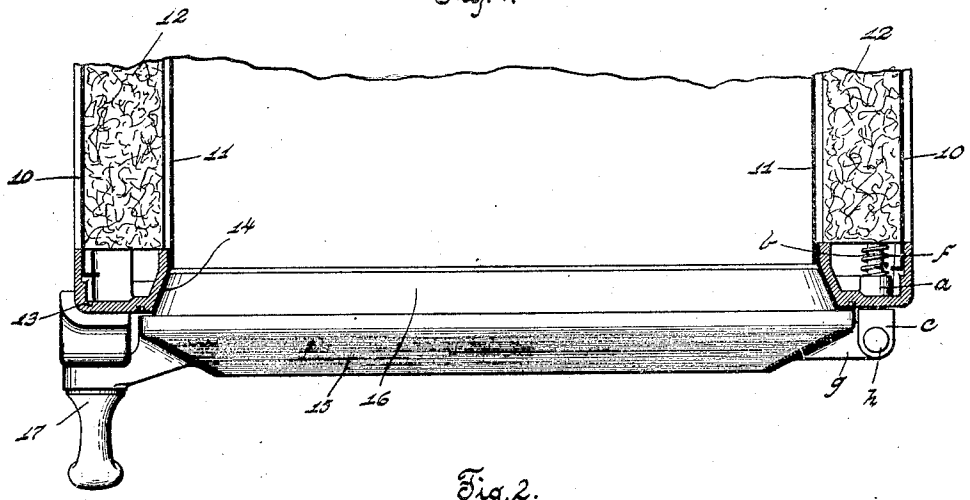


Fig. 2.

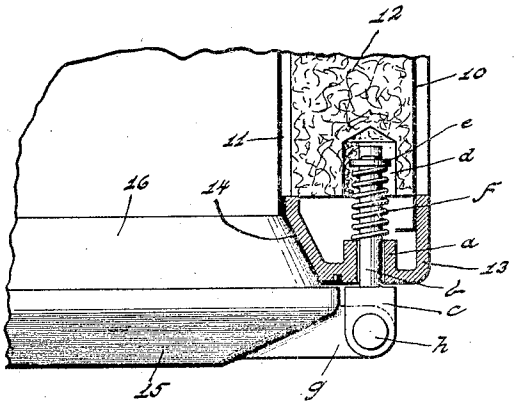
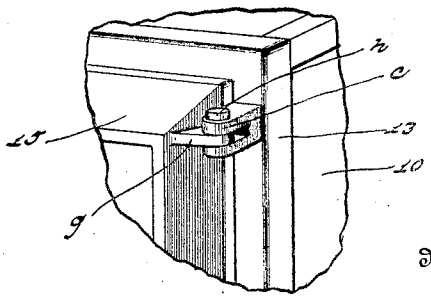


Fig. 3.



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UNITED STATES PATENT OFFICE.

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HINGE FOR OVEN DOORS.

Original application filed April 2, 1921, Serial No. 458,105. Divided and this application filed August 1, 1922. Serial No. 578,981.

To all whom it may concern:

Be it known that I, JOSEPH F. LAMB, a citizen of the United States, and a resident of New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in a Hinge for Oven Doors, of which the following is a specification.

The present application is a division of my co-pending application Serial No. 458,105, filed April 2nd, 1921, and covering improvements in a range.

The present invention relates to a hinge for oven doors, and has as its object to provide a device of this sort having various features of novelty and advantage. The present invention contemplates a hinge of such construction that the door of the oven is yieldingly held closely against the oven wall or frame, thus providing a tight closure or fit therebetween which will prevent escape of heat or vapors from the oven about the edge of the door.

My improved hinge is very simple in construction, may be economically manufactured, and is very sightly; all but the lug or yoke to which the door is secured being concealed by the oven frame.

In the accompanying drawing, wherein I have shown for illustrative purposes one embodiment which the present invention may take,

Fig. 1 is a horizontal sectional view through an oven showing my improved hinge applied thereto;

Fig. 2 is a fragmentary view taken in horizontal section through the hinge; and

Fig. 3 is a view in perspective of one corner of the oven.

My improved hinge may, of course, be applied to an oven of any suitable construction, the showing of the oven in the drawing being by way of exemplification only. In this drawing, the oven is shown as having an outer shell 10, an inner lining 11, heat insulating material 12 therebetween, and a front or frame 13 having a sheet metal, outwardly flaring throat 14 which, if desired, may be welded to the forward end of the lining 11. 15 designates the oven door which may be of any suitable construction, in the present instance it having a tapered portion 16 adapted to snugly fit within the throat 14. Between the free edge of the door and the front 13 is a suitable latch 17 by means of which the free edge of the door is forced against the oven frame. This latch may be of any suitable construction and is, therefore, not shown in detail in the drawings.

Referring now to the construction of my improved hinge, it will be seen that the front 13 of the oven is provided with an apertured hub *a* in which is slidably mounted a hinge member having a stem *b* extending through the bearing *a* and a yoke or lugs *c* on the outer end of the stem. The body of insulating material 12 is recessed as at *d* to receive the inner end of the stem. On this end of the stem is fixed a collar *e* between which and the hub *a* is a spring *f* coiled about the stem *b* under tension so that this spring normally urges the hinge member inwardly. The oven door has a lug *g* hingedly connected to the yoke *c* by a pintle *h*.

With the arrangement described, it will be seen that when the door is closed, the spring *f* will pull the hinged edge of the door towards the oven so that the tapered portion 16 of the door will closely or snugly fit in the throat 14, thus providing a tight closure which will prevent the escape of gases or vapors. My improved hinge comprises an extremely few number of parts, each of which is very simple in construction. Also, since the spring and other parts of the hinge are concealed, the neat appearance of the oven is maintained.

I claim as my invention:—

1. In combination, a frame, a door, a hinge member to which said door is pivoted and slidably mounted in said frame, and resilient means urging said member in a direction to bring said door and frame in contact.

2. In combination, a frame, a door, a hinge member having a stem slidably mounted in said frame, a spring urging said member inwardly, and means for pivoting said door to said member.

3. In combination, an oven having a tapering throat, a door adapted to fit snugly in said throat, and a hinge provided with

means for drawing said door inwardly of the throat to obtain a steam-tight fit.

4. In an oven and in combination, an oven frame having an apertured hub, a door, a hinge member pivoted to said door and having a stem slidably mounted in the bearing provided by said hub, an abutment on the inner end of said stem, and a coiled spring about said stem and interposed between said hub and abutment for normally urging said stem together with the door connected thereto inwardly of the oven.

JOSEPH F. LAMB.