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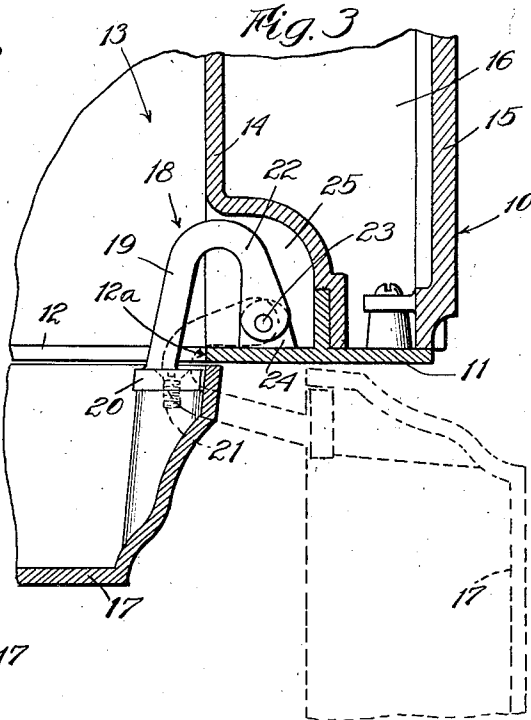
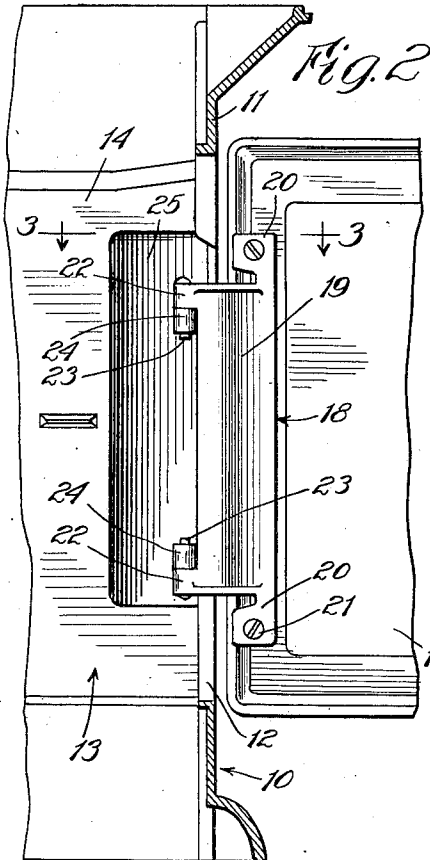
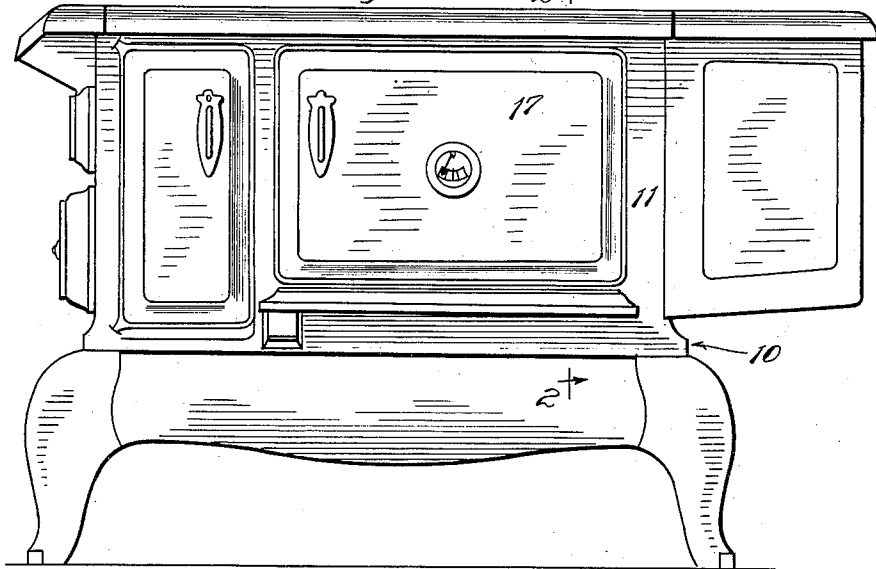
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1,835,331

CONCEALED HINGE

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Fig. 1



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UNITED STATES PATENT OFFICE

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CONCEALED HINGE

Application filed April 3, 1930. Serial No. 441,193.

The invention relates generally to hinged door mountings for stoves and more particularly it relates to such a door mounting wherein the hinge is wholly concealed when the door is in closed position.

The general object of the present invention is to provide a new and improved concealed hinge which is of simplified yet sturdy construction and which may be mounted on the other parts of the stove by a simple and easily performed operation.

Other objects and advantages will become apparent from the following description taken in connection with the accompanying drawings, in which:

Fig. 1 is a front elevational view of a stove embodying the invention in its preferred form.

Fig. 2 is a fragmental vertical sectional view taken along the line 2—2 of Fig. 1, showing the oven door in its open position.

Fig. 3 is a fragmental plan view taken along the line 3—3 of Fig. 2.

For purposes of disclosure the preferred form of the invention is illustrated in the drawings and will hereinafter be described in detail as applied to a door mounted on a stove in a particular manner, but it is to be understood that this disclosure is not intended as a limitation of the invention to stove doors or to doors mounted so as to pivot about vertical axes, it being contemplated that various changes might be made by those skilled in the art to adapt the invention to other forms of doors without departing from the spirit and scope of the invention as defined by the appended claim.

In the drawings the invention is illustrated as embodied in a solid fuel cooking range having a body 10 with a front wall 11 which forms a door frame and has a door opening 12 therein through which access may be had to an oven compartment 13. The oven compartment is formed in the usual manner by walls including a pair of spaced walls 14 and 15 which provide a flue space 16 therebetween through which heat is transmitted to the oven.

A door 17 for closing the opening 12 is arranged to overlie the edges of the door

opening 12 (Figs. 2 and 3) and in the present case is mounted on the stove body 10 for swinging movement about a pivotal axis which is parallel to one of the vertical side edges 12^a of the door. In accordance with the present invention the means for pivotally supporting the door is of such a character that it is wholly concealed when the door is in its closed position and it is adapted to be quickly and easily mounted in its operative relation to the stove body and the door 17. To this end a hinge member 18 is provided which is adapted for connection with the inner sides of the door 17 and the forward wall 11 of the stove body, and in the present case the member 18 is arranged to provide two spaced pivotal connections.

The hinge member 18 is of a substantially U-shape as viewed from above (Fig. 3) and has a web section 19 forming one side of the U and adapted to be secured to the door 17 so that it projects rearwardly therefrom as shown in Fig. 3. For the purpose of securing the web section 19 in such a position, a pair of apertured ears 20 are formed at the forward edge of the upper and lower ends thereof, substantially perpendicular to the web section 19 and adapted to be secured in abutting relation to the inner side of the door 17 by means of screws 21 extending through the apertures in the ears 20 and engaging the door. At the upper and lower ends of the rear edge of the web 19, a pair of arcuately shaped arms 22 are formed so as to project laterally therefrom and then forwardly, substantially parallel to the web 19 whereby to provide the other side and the intermediate portions of the U-shape above mentioned.

The ends of the arms 22 are pivotally connected to the inner side of the wall 11 by pins 23 projecting vertically through the arms 22 and engaging lugs 24 which extend rearwardly from the wall. As shown in Fig. 3, the pivotal axis is spaced transversely from the adjacent vertical edge 12^a of the opening 12 while the connection of the web section 19 with the door 17 is made at a point spaced from the edge of the door. It will also be noted that the adjacent edge of the door 17 is positioned between the pivotal axis and the

point at which the hinge is connected to the door so that the edge of the door will have a clear path during the swinging movement of the door.

5 In order to provide clearance for the rearwardly projecting body of the hinge when the door is in closed position, the side wall 14 of the oven compartment is offset laterally, (Figs. 2 and 3) so as to form a recess 25. By
10 this arrangement the necessary flue space may be provided without increasing the length of the stove body, and the dimensions of the oven may be maintained substantially the same as the corresponding dimensions of the door
15 opening 12.

When the door is in closed position, the hinge member 18, together with all its connecting means, is concealed within the stove body as shown in Figs. 1 and 3 so that an
20 unusually attractive stove is provided. In its open position the hinge extends around the edge 12^a of the door opening and the door is supported in a laterally offset position as shown in dotted outline in Fig. 3 so that it
25 does not interfere with the operation of placing an object in or removing it from the oven compartment.

It will be obvious that the door mounting obtained by the use of the hinge herein disclosed is unusually rigid and that the assembling operation is quite simple since it may be performed after the body of the stove has been completely assembled.

I claim as my invention:

35 In a stove having a front frame member with a door opening therein, walls defining a compartment rearwardly of said opening, one of said walls being vertical and perpendicular to said frame member and aligned with
40 an edge of said opening, means forming a flue space outside of said vertical wall, said last mentioned wall being offset laterally into said flue space adjacent to said frame member to provide a recess along said edge, a door for
45 closing said opening, and a hinge for supporting said door for pivotal movement about a vertical axis, said hinge comprising an elongated web adapted to extend inwardly from the inner side of said door substantially perpendicularly thereto, a pair of apertured ears
50 formed on the outer edge of said web in substantially perpendicular relation thereto and adapted to abut the inner side of said door, means extending through said ears to secure
55 the hinge to said door, a pair of spaced arcuate arms projecting laterally and then outwardly from the inner extremity of said web, and means pivotally connecting the ends of said arms to the inner side of said frame, said
60 arms being adapted to be positioned in said recess when the door is closed.

In testimony whereof, I have hereunto affixed my signature.

GEORGE E. PICKUP.