Dec. 26, 1939. W. M. KNIGHT 2,184,813

COAL STOVE DOOR

Filed Oct. 26, 1938

Fig. 1.

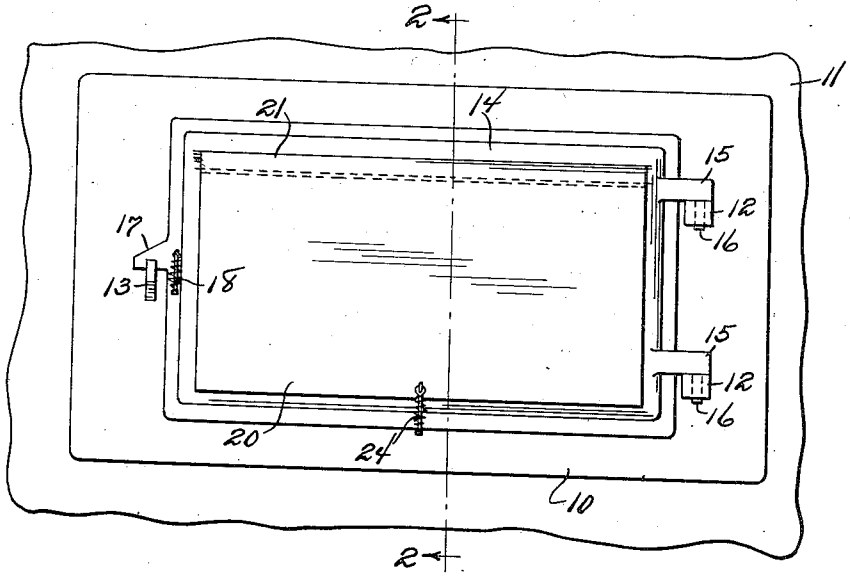


Fig. 2.

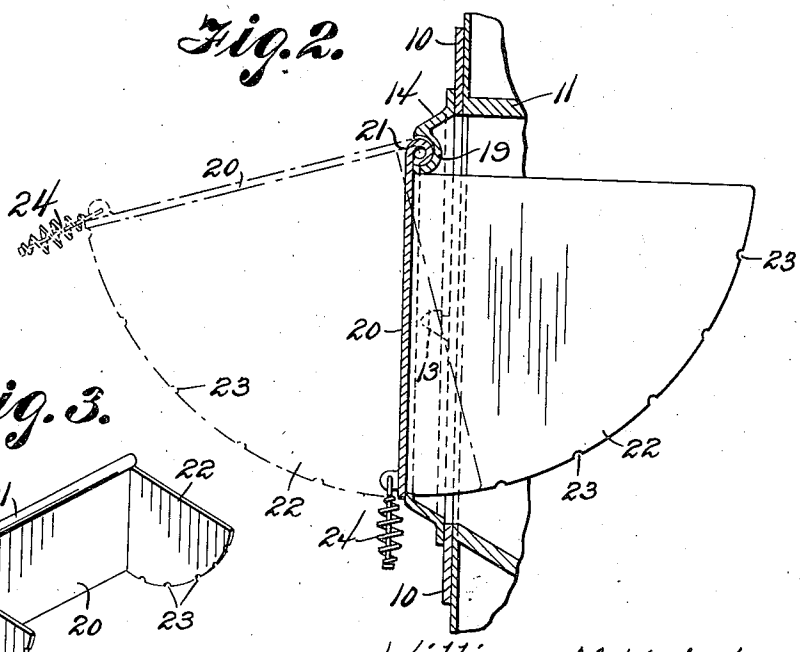


Fig. 3.

William M. Knight INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

Patented Dec. 26, 1939

2,184,813

UNITED STATES PATENT OFFICE

2,184,813

COAL STOVE DOOR

William M. Knight, Turin, Alberta, Canada

Application October 26, 1938, Serial No. 237,124

1 Claim. (Cl. 126—193)

This invention relates to coal stove doors and has for an object to provide a door having a novel damper plate which may be set to permit the cold air of the room being drawn into the fire and up the stove pipe without having to be first drawn through the fire box, to the end that the room temperature will be maintained more even than hitherto possible.

A further object is to provide a door of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a front elevation of a coal stove door constructed in accordance with the invention in applied position.

Figure 2 is a longitudinal sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a detail perspective view of the damper plate.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates the face plate which defines the door opening of a coal stove 11, both the plate and the coal stove being conventional and the face plate being provided with hinge lugs 12 and a keeper 13, as is customary.

In carrying out the invention an open frame 14 is provided, the same being adapted to replace the conventional wire door of a coal stove. The frame is provided at one end with hinge ears 15 from which depend hinge pintles 16 that are received in the hinge eyes 12 of the face plate 10. Opposite the hinged ears the frame is provided with a latch 17 adapted to engage in the keeper 13. A handle 18 is pivoted on the frame near the latch through the medium of which the frame may be opened and closed to replenish the fuel supply.

The frame is provided outwardly thereof and longitudinally of its upper end with a hollow cylinder 19 which is open at both ends and at the front and extends through the length of the frame, as best shown in Figure 2.

A damper plate 20 is located at the outer side of the frame 14 and is provided at its upper edge with a bead 21 which is mounted in the hollow cylinder 19 to permit the damper plate to swing upwardly and downwardly with relation to the frame. The damper plate is provided with segmental side members 22 and these members are provided at their curved edges with notches 23 which are adapted to receive the lower edge of the frame to support the damper plate in any desired or required position with relation to the frame. The bead 21 is a loose fit in the hollow cylinder 19 to permit the damper plate to be lifted slightly through the medium of a handle 24 which is pivoted to the outer face of the damper plate in the bottom thereof. When the damper plate is lifted slightly the notches 23 will be disengaged from the frame to permit the damper plate being swung open to a predetermined position according to whether it is desired to maintain a low fire or a hot fire. The hollow cylinder 19 forms a stop against which the upper edges of the damper plate side pieces are engaged when closed, as shown in Figure 2.

In operation when the damper plate is swung to any desired open position heat from the room will enter the coal stove through the open damper and pass over the coal bed and up through the chimney without passing up through the fire box as is customary. Thus the room temperature will be maintained more even and uniform than has hitherto been possible.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

A coal stove door comprising an open frame adapted to replace the fire door of a coal burning stove, means for pivoting the frame at one end to the coal stove, a latch at the opposite end of the frame, a hollow cylinder on the upper side of the frame open at the ends and at the front and extending throughout the length of the frame, a damper plate disposed to form a closure for the open frame and provided at its upper edge with a bead rotatably mounted in the hollow cylinder to connect the damper plate pivotally to the frame and permit the damper plate to move upwardly and downwardly with relation to the frame, and segmental side pieces on the damper plate having notches in their curved lower edges adapted to receive the lower edge of the frame to support the damper plate in adjusted positions, said hollow cylinder forming a stop against which the upper edges of the damper plate side pieces are engaged when the damper plate is closed.

WILLIAM M. KNIGHT.