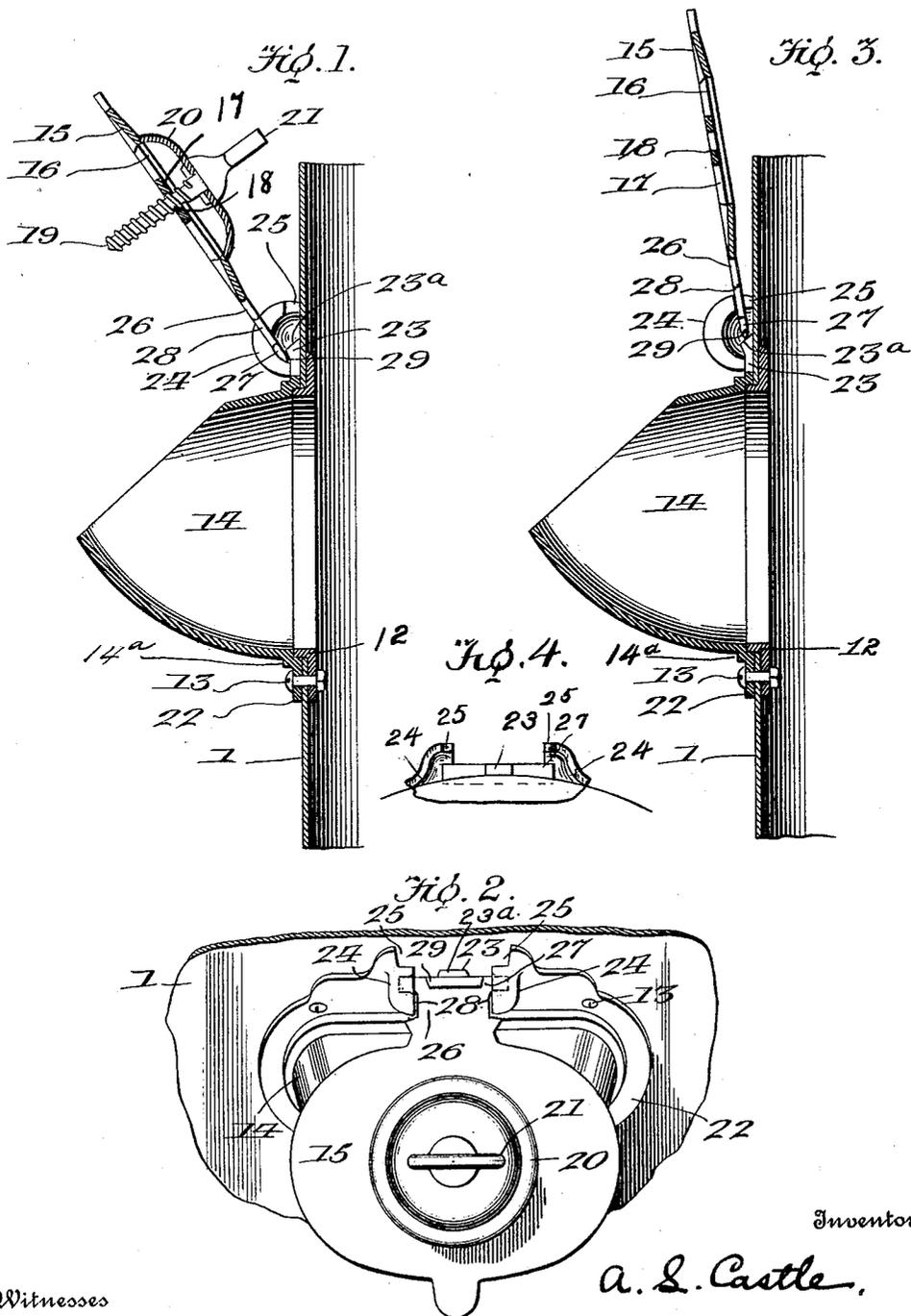


A. L. CASTLE.
 STOVE DOOR.
 APPLICATION FILED JUNE 16, 1913.

1,108,698.

Patented Aug. 25, 1914.



Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED L. CASTLE, OF QUINCY, ILLINOIS.

STOVE-DOOR.

1,108,698.

Specification of Letters Patent.

Patented Aug. 25, 1914.

Application filed June 16, 1913. Serial No. 773,966.

To all whom it may concern:

Be it known that I, ALFRED L. CASTLE, citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented new and useful Improvements in Stove-Doors, of which the following is a specification.

My present invention pertains to stoves, and consists in the peculiar and advantageous stove door, hereinafter described and claimed, designed more particularly for use as an ash door.

In the drawings, accompanying and forming part of this specification: Figure 1 is a view showing my door as an ash door, and as detachably secured in a raised position. Fig. 2 is a detail view showing the ash door closed, and also showing the relation of the said door to its frame and the body of the stove. Fig. 3 is a detail view showing the damper removed from the ash door and also showing the latter positioned to permit of its being lifted and disconnected from the frame. Fig. 4 is a detail view showing the relation of the T-head of the ash door and the parts with which said T-head cooperates.

Similar numerals of reference designate corresponding parts in all of the views of the drawing.

The body 1 of the stove is preferably of sheet-metal. The frame 14 of the ash door 15 is disposed at the outer side of the body 1 and is connected, preferably by bolts 13 equipped with nuts, to the body 1 and a cast-metal collar 12 disposed at the inner side of the body 1. By reason of the sheet-iron or steel of the body 1 being interposed between the collar 12 and the frame 14, and the collar being drawn tight by bolts or the like, a perfectly air-tight joint between the sheet-iron or steel and the cast-iron elements is attained. The frame 14 is preferably of the shape shown—i. e., is directed outward and upward, and its outer and inclined end is preferably machined as is also the opposed side of the door 15, in order to assure a tight closure of the latter when it gravitates against the end of the frame. The door 15 is provided with an opening 16, bridged by a bar 17 in which is a threaded aperture 18, and disposed in said aperture 18 is the threaded stem 19 of a damper 20 which also has a handle 21. By turning the said handle the damper 20 can be opened to a greater or less extent and can also be tightly closed. Also by turning the thread-

ed stem of the damper entirely out of the threaded aperture in the bridge bar, the damper can be entirely removed from the ash door for a purpose hereinafter set forth.

The frame 14 and the ash door 15 are of cast-iron, and the base flange 22 of the former is provided at its top with an upwardly extending catch 23 having a beveled head 23^a. At opposite sides of the said catch 23 the base flange 22 is provided with two chambered lugs 24 having notches 25 in the rear portions of their upper walls. The door 15 is provided on its upper edge with a stem 26 having a T-head 27 and notches 28 in front of said T-head. It will also be seen that the outer end of the stem 26 is beveled at its outer side, as indicated by 29. The ends of the T-head 27 are disposed in the chambered lugs 24, while the notches 28 loosely receive the edges of the said chambered lugs, and hence the door 15 can be freely swung up and down without liability of being accidentally disconnected from the frame 14. It will also be noted that when the door 15 is swung up to an upwardly and outwardly inclined position and the beveled end of the stem 26 is disposed under and against the head of the catch 23, Fig. 1, the door will be maintained in a raised position. The door 15 cannot be swung back far enough to permit of its being disconnected from the chambered lugs of the frame 14 so long as the damper 20 is in position away from said door. When, however, the damper 20 is removed and the door 15 is swung up and back until the ends of the T-head are in vertical alinement with the notches in the chambered lugs, the T-head can be readily lifted from the said lugs and as readily replaced therein. The beveled head 23^a of the catch 23 cooperates with the beveled outer side of the outer end of stem 26 to facilitate the lifting of the T-head from the chambered lugs of the door frame and the replacing of said T-head in the said lugs and the disposition of the T-head in front of the catch 23, as shown in Fig. 1, in which position the door is free to swing vertically.

It will be observed by reference to Figs. 1 and 2, that the collar 12 is provided with an outwardly directed flange, and that the said flange is disposed in an angular portion 14^a of the frame 14. In other words, the collar 12 is interlocked with the frame 14, and the edge of the sheet-metal body 1 is completely covered by the outwardly di-

rected flange of the collar. It is due to this relative arrangement of parts that the air-tight joint hereinbefore alluded to is attained.

5 Having described my invention, what I claim and desire to secure by Letters-Patent, is:

10 In a stove, the combination of a body having an upright side wall, an ash-door frame fixed with respect to the body and having on its upper portion a flange provided with an upwardly extending catch having an upwardly and inwardly beveled head and further having chambered lugs arranged at opposite sides of said catch and provided in their upper walls adjacent the side wall of the body with notches that are open at their inner ends and also at their upper and lower sides, and an ash door hav-

ing a stem on which is a T-head disposed in the chambered lugs and also having the outer side of the end of said stem beveled and further having side notches disposed in front of the said T-head; said ash door being further provided at its outer side with means detachably connected therewith and extending laterally therefrom and adapted to bring up against the upright wall of the body and thereby prevent alinement of the T-head with the notches in the chambered lugs, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALFRED L. CASTLE.

Witnesses:

H. C. STOLL,
J. R. WOODRUFF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."