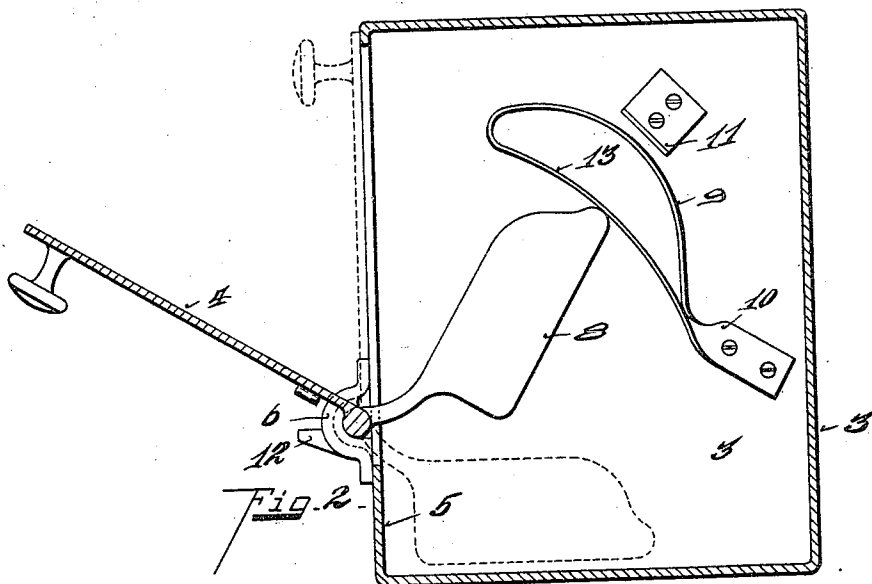
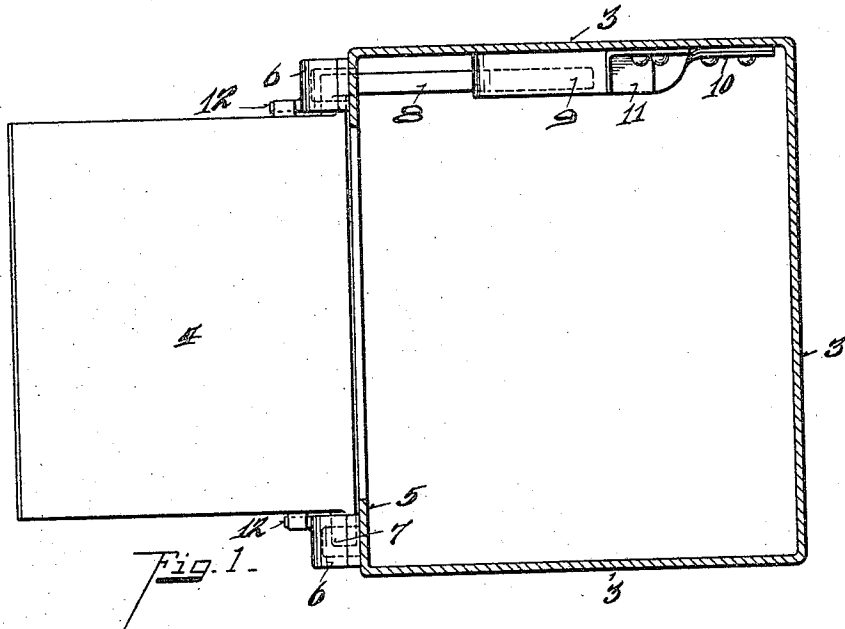


OVEN DOOR.

Patented Feb. 22, 1910.

949,984.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK V. KNAUSS, OF PORTSMOUTH, OHIO.

OVEN-DOOR.

949,984.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed June 7, 1909. Serial No. 500,662.

To all whom it may concern:

Be it known that I, FRANK V. KNAUSS, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Oven-Doors, of which the following is a specification.

My invention relates to an improvement in stove oven doors.

10 The object of my invention is to provide an oven door with means to prevent sudden opening of the door, and when the door is closed maintaining the same in such position without the use of a catch. This is a very important feature in oven doors of gas stoves, preventing a blowing out of the door by an accumulation of gas within the oven, as such pressure will cause the door to swing open and relieve itself, thereby avoiding an explosion.

Another object of my invention is to provide an oven door for stoves with a counter-balance weight, said weight being adapted to frictionally engage a brake during a portion of the open swing of the door to retard its movement.

The features of the invention are more fully set forth in the description of the accompanying drawing, forming a part of this specification, in which:—

Figure 1 is a horizontal section of a stove oven, showing the door open. Fig. 2 is a central vertical section of the same.

3 represents the side and rear walls of the stove oven.

4 represents the oven door, hinged to the front wall 5.

6 represents a cap secured to the front wall, forming a hinge member for the pintle 7 of the door, and at the same time serving as a housing therefor.

8 represents a counter-balance weight, preferably provided with an arm and rigidly secured to one of the pintles of the door. When the door is closed the weight 8 occupies the position shown in dotted lines, Fig. 2.

In order to prevent the door from moving too violently against the stop lugs 12 in

opening the door, I provide the following devices:—9 represents a flexible brake, preferably made of hoop-iron or other similar metal, doubled over and bent in the form, shown in Fig. 2. 10 represents the shank which is securely bolted to the side walls of the oven. 11 represents a stop guard, against which the brake is stopped from moving out of the path of the weight 8. The weight 8 is rounded off, so that the tip or toe portion engages with the curved section 13 of the brake, so as to secure a friction engagement with the weight during a portion of the final movement to open position of the door. In the preferred form of construction, the flexible brake normally lies in the path of the weight and is forced upward by the weight of the door, until it strikes the stop 11. When the inner leaf of the brake is flexed by the weight of the door it imparts resistance, checking any abrupt movement of the door. The weight and brake are inclosed by the inner lining plate of the oven, not shown.

It is obvious that the brake might be made of elastic metal, such as spring steel, and of sufficient thickness to form a spring stiff enough to break the rapid travel of the weight of the door, and it would be a full equivalent of the form here shown, as long as the elasticity is unimpaired by the heat of the oven. I do not wish to limit myself to the precise form of the brake, except wherein the same is specifically set forth in the claim.

Having described my invention, I claim:—

In an oven, a hinged door, a counter-balance weight attached to the door projecting into the oven, a flexible brake secured to one of the side walls of the oven and projected forward to engage the weight, and a guard to stop an extended movement of the brake.

In testimony whereof, I have hereunto set my hand.

FRANK V. KNAUSS.

Witnesses:

OLIVER B. KAISER.

EMMA SPENER.