

J. SPEAR.  
Stove Door.

No. 35,551.

Patented June 10, 1862.

Fig. 1.

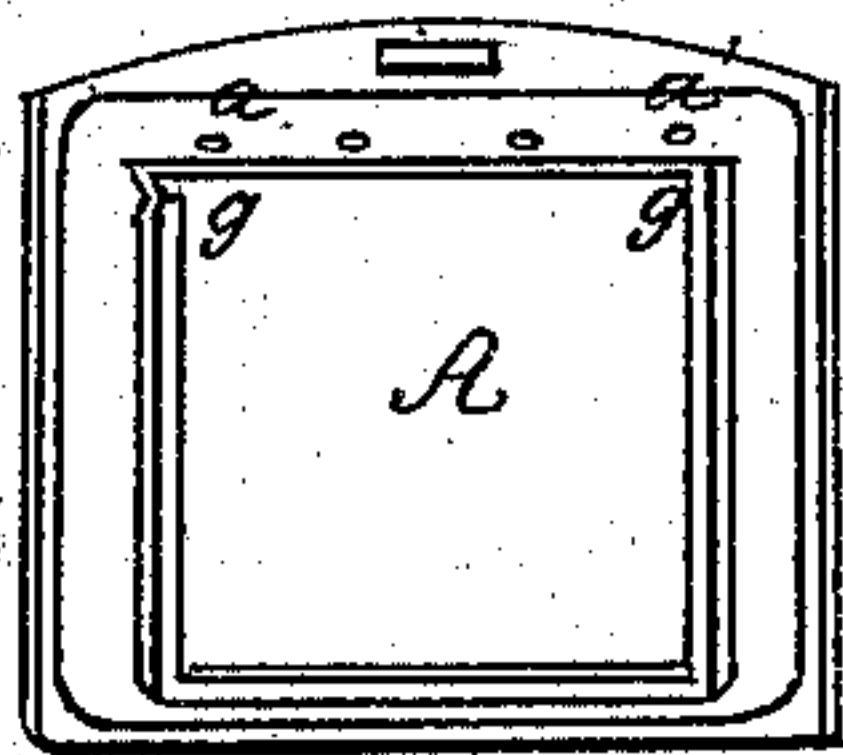


Fig. 2.

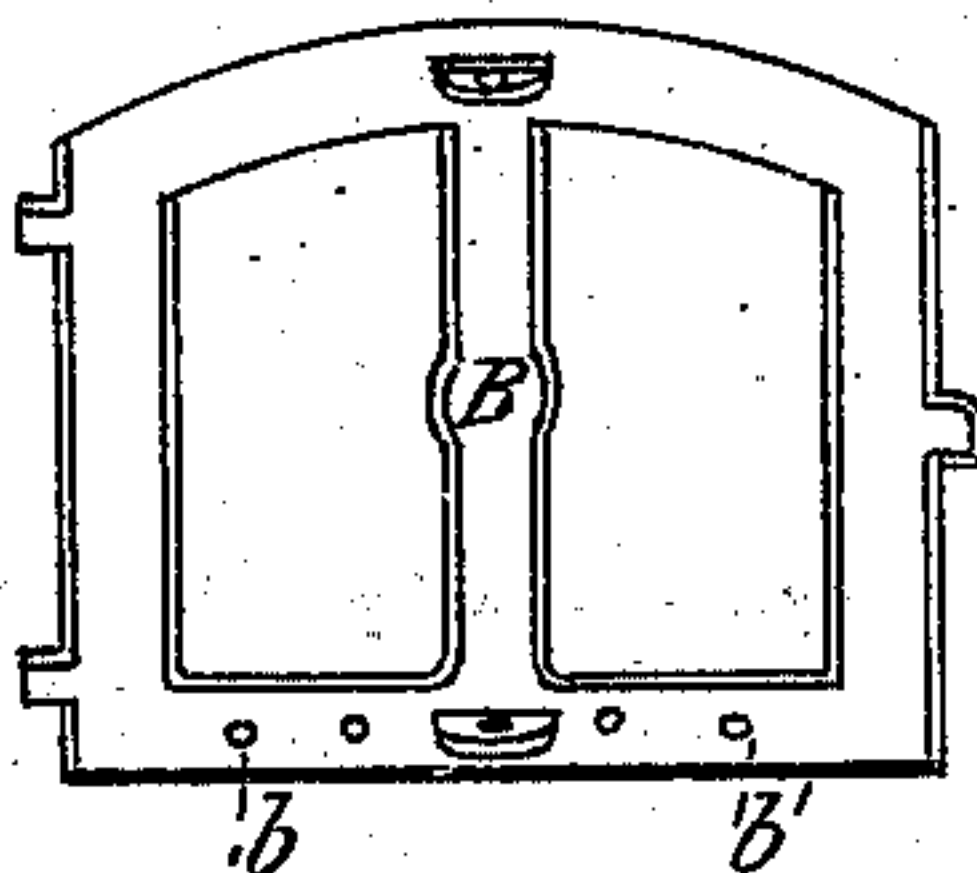


Fig. 3.

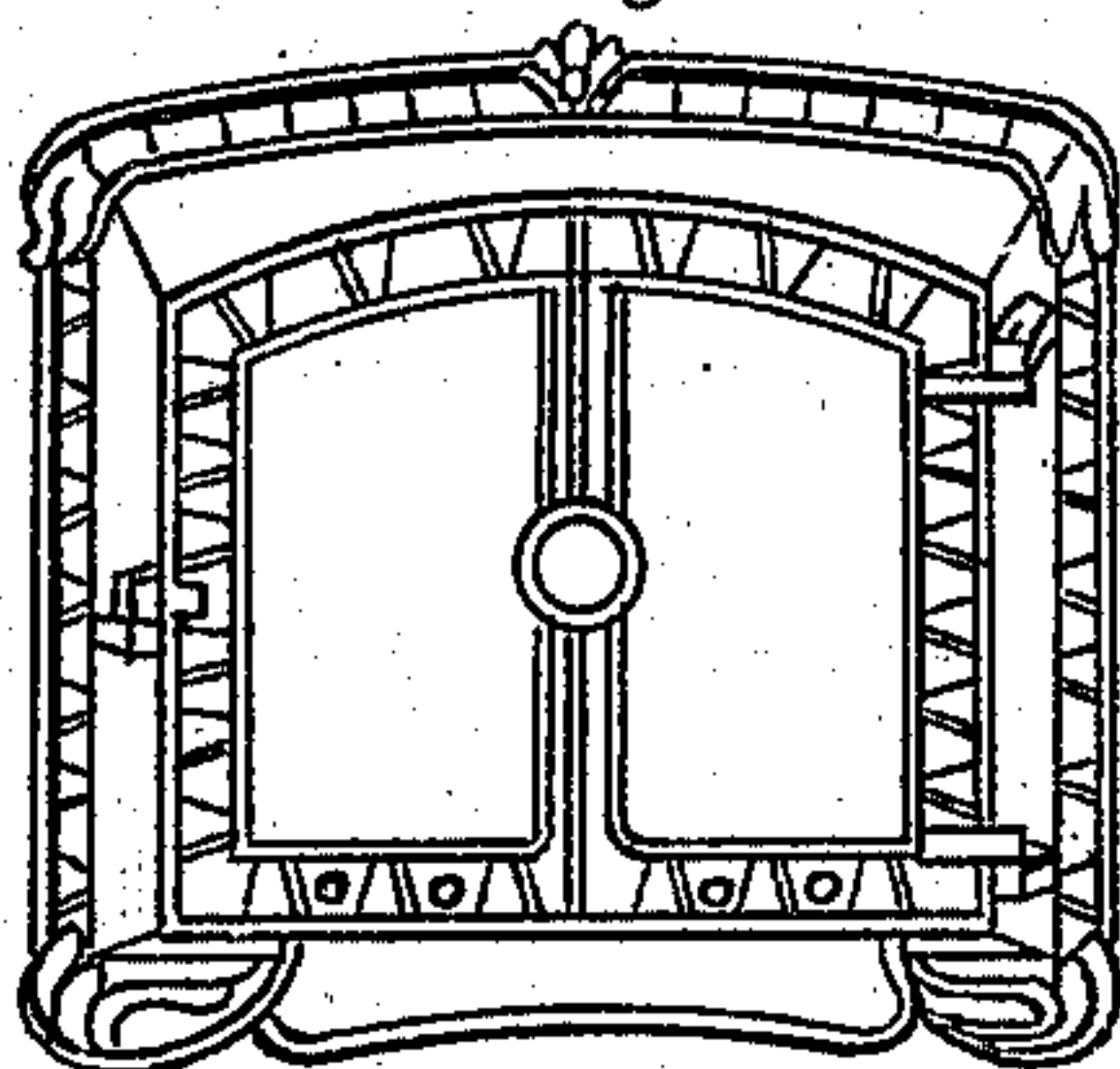


Fig. 4.

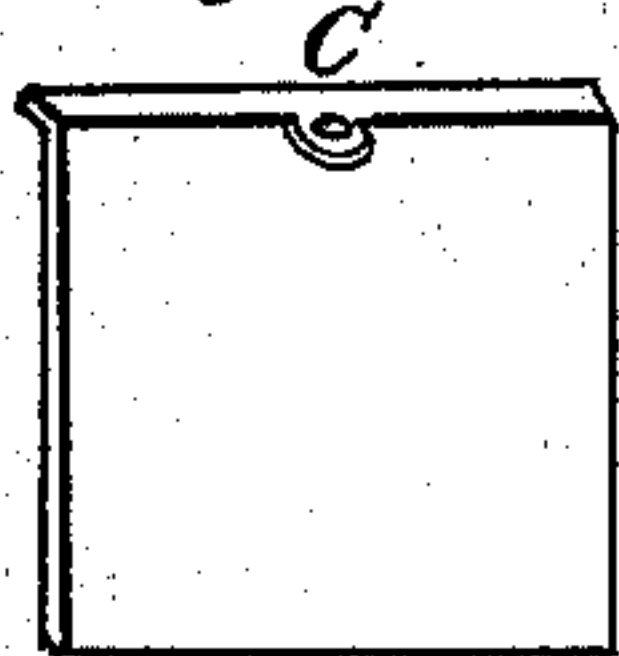


Fig. 5.

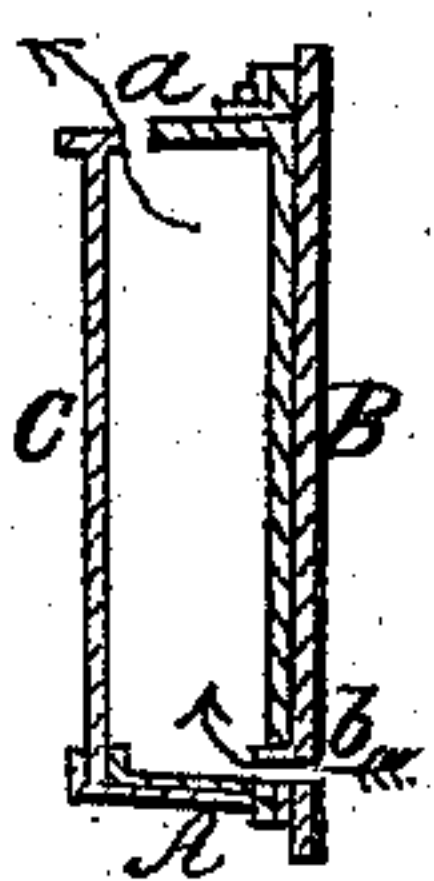


Fig. 6.

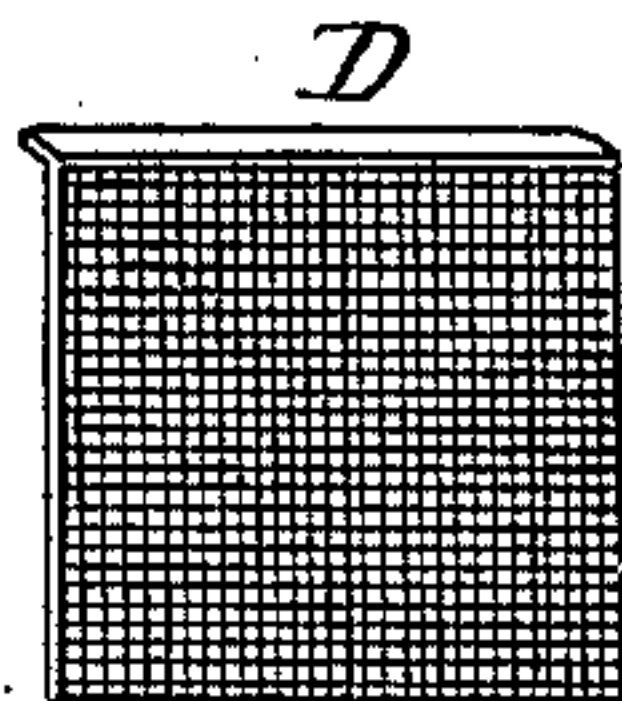


Fig. 7.

Witnesses;  
Wm. A. Allen  
John Thompson

Inventor,  
James Spear



# UNITED STATES PATENT OFFICE.

JAMES SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN STOVE-DOORS.

Specification forming part of Letters Patent No. 35,551, dated June 10, 1862.

*To all whom it may concern:*

Be it known that I, JAMES SPEAR, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Doors for Stoves.

The trouble heretofore experienced in doors for parlor-stoves has been that when the fire was kindling the smoke and soot, as well as the dampness arising from the fuel, settled on the mica, blackening it in such a manner as to prevent one from seeing through it, and, in a great measure, detracting from the beauty of the stove; also, in many cases the mica has to be renewed at considerable expense. This blackening of the mica always takes place while kindling the fire, particularly in stoves where anthracite coal is used; and after the fire is once kindled the mica may remain in the stove for weeks at a time and no further blackening will take place.

The object of my invention is to find a ready and effectual means of preventing the blackening of the mica during the process of kindling the fire. To accomplish this, I have constructed a peculiar frame for the inside of the door of the stove, one side of it holding the mica to its place against the inside of the door, and the other side admitting of a piece of sheet-iron or other metal being slipped down in front of the frame, leaving an air-space between the mica and the metal plate; and I have also placed holes in the bottom of the door, which communicate with the space between the mica and metal plate, and have also placed openings in the top part of the frame, so as to allow the air between the mica and the metal plate to escape into the stove when it becomes heated, thus preventing the metal plate from becoming overheated and warping.

The nature of my invention consists in so constructing the door of a stove or heater that a metal plate may be placed before the mica while kindling the fire and be easily removed after the fire is kindled.

To enable others skilled in the arts to make and use my invention, I will proceed to describe more fully its construction and operation; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Take any stove-door in which mica is used

and place a frame, A, Figure 1, having a wide flange on the inside, one side of which frame will press the mica against the inside of the door B, Fig. 2, and the other edge having an opening, *g g'*, Fig. 2, at the top, through which a metal plate, C, Fig. 4, may be slipped down between the fire and the mica. Openings *b b'* are made in the lower part of the door B, Fig. 2, so as to allow air to pass into the space between the mica and the metal plate, and openings *a a'*, also made in the top part of the frame A, Fig. 1, so as to allow air to pass into the stove, as is shown in Fig. 5. The frame is held to the door by means of a rod passing down through lugs cast on the door, thus firmly holding it to its place. This rod can be withdrawn and the frame removed at any time that the mica may require to be renewed. Again, as a permanent fixture for the sides of a stove, where it is not convenient to use a metal plate, wire-gauze D, Fig. 6, may be used, although not so perfect a shield to the mica as the metal plate. The openings *b b'* at the bottom of the door B, Fig. 2, and the openings *a a'* at the top of the frame A, Fig. 1, operate the same with the wire gauze as with the metal plate, and also drive out of the space the smoke that may be forced through the gauze.

Fig. 1 represents the frame. Fig. 2 represents the door. Fig. 3 represents the door closed, showing the openings *b b'*. Fig. 4 represents the metal plate. Fig. 5 represents a sectional view of the door. Fig. 6 represents the wire-gauze. Fig. 7 represents a plate used to hold the metal plate D to its place in the bottom of the frame A.

I am well aware that metal plates have been used in stoves for preventing the mica from becoming smoked; also, wire-gauze has been used as a partial remedy in stoves and lamps for the same purpose; but these, simply and broadly, I do not claim; but

What I do claim, and wish to secure by Letters Patent, is—

The combination of the openings *b b'* at the bottom of the door and the openings *a a'* at the top of the frame when in connection with the mica and metal plate or wire-gauze, constructed substantially as herein described.

JAMES SPEAR.

Witnesses:

WM. A. ALLEN,  
JOHN THOMPSON.