

F. S. BISSELL.

Stove Door.

No. 67,942.

Patented Aug. 20, 1867.

FIG. 1

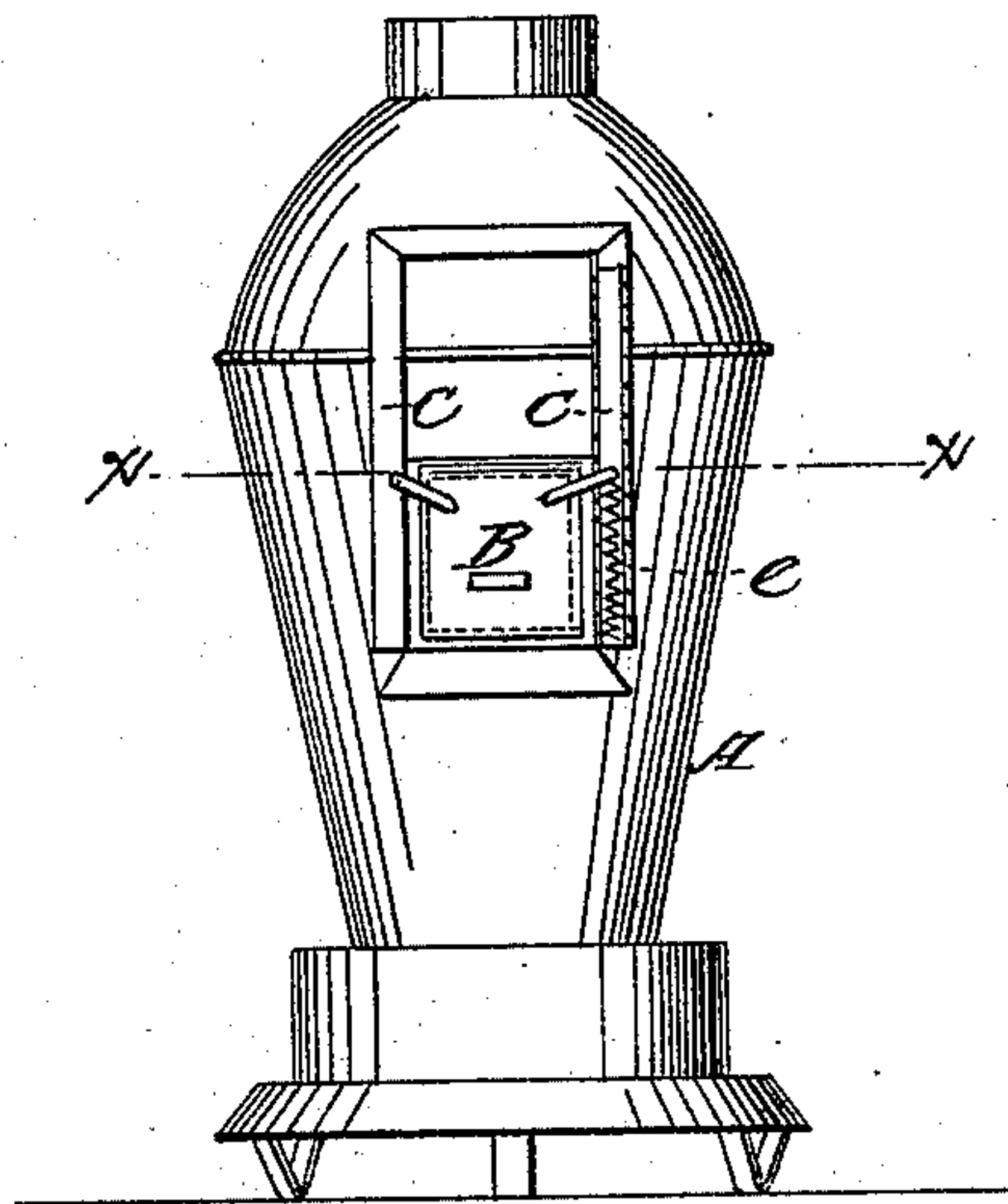
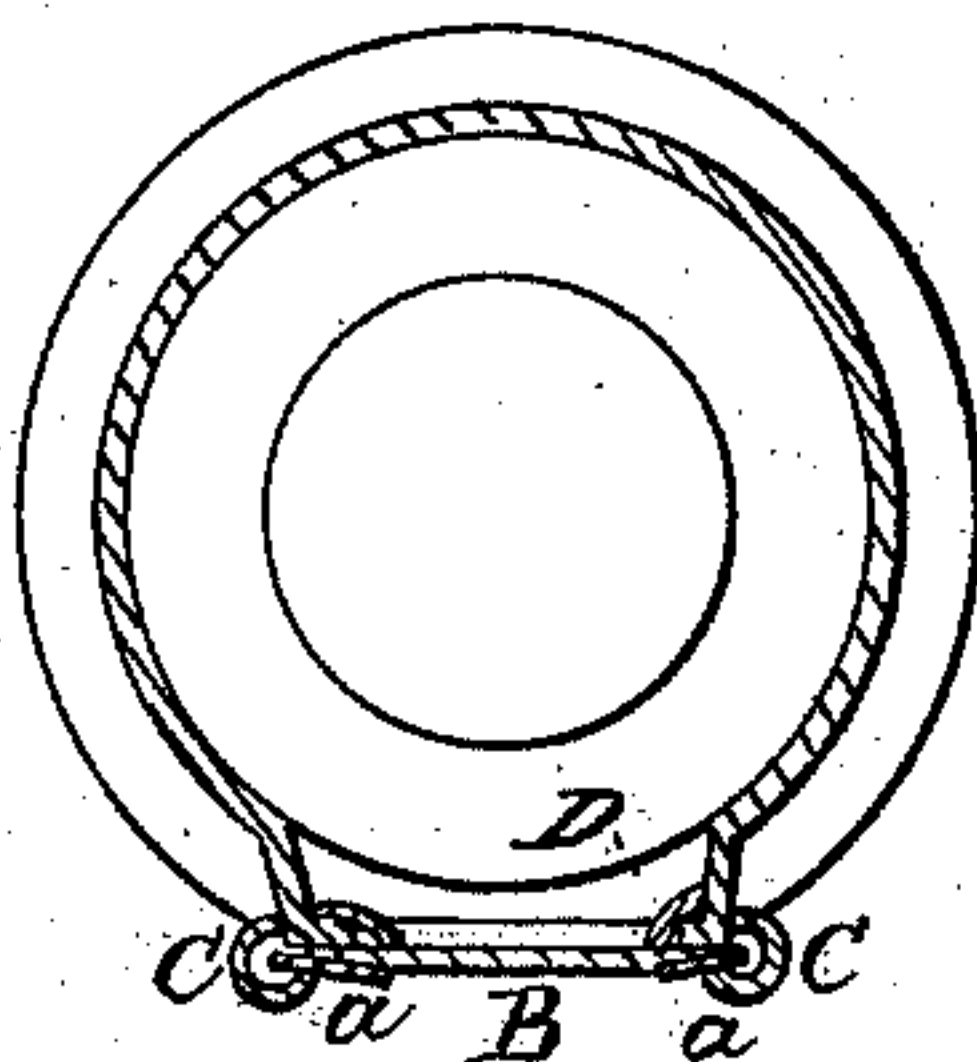


FIG. 2



WITNESSES:

Theo Truske  
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INVENTOR:

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Attorneys

# United States Patent Office.

FRANK S. BISSELL OF PITTSBURG, PENNSYLVANIA.

*Letters Patent No. 67,942, dated August 20, 1867.*

## IMPROVEMENT IN DOORS FOR STOVES AND FURNACES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, FRANK S. BISSELL, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Doors for Stoves and Furnaces; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved method of preventing accidents and damage by fire from the upsetting of stoves in railroad cars, and for other purposes; and it consists in so arranging a stove or furnace door that it is closed by springs, which springs operate upon it whenever it is not held open by force, as will be hereinafter described.

Figure 1 represents a front elevation of the stove with the door attached, partly in section.

Figure 2 is a horizontal section through the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the stove or furnace, and B is the door. In this example of my invention, the door is represented as having a vertical motion between two upright tubular pieces, which are marked C; D represents the door-way or throat of the stove projecting from the stove around the aperture, and presenting an even surface, against which the door slides. The inner edges of the sides form ways, which guide and support the door in its motion up and down. The tubular side pieces C are attached to the outer edge of the door-way D, and are connected together at the top in any suitable manner. The lower portion of these pieces C contain spiral springs, *e*, which are attached to the bottom ends of the tubes C. The tops of the spring are attached to small bars, which project from the door. The upper portion of the tubes C is slotted, for the purpose of allowing the bars of the door to move up and down over the spring. These bars are seen at *a*, fig. 2. The door is held in place by jaws upon its inside, as seen in the same figure. It is intended that the door shall be separated from the stove as much as would be convenient, and that the door-way D should be composed of zinc or some other equally good non-conducting metal, for the purpose of preventing the door from being warped by the heat of the fire.

I do not confine myself to the particular arrangement of the door herein shown and described. It may be closed upward or be moved sidewise instead of vertically; other kinds of springs may also be used. The door may be operated by a knob, as seen at *d*, or by a lever attached to it in any suitable manner. It will be seen that when the door is raised it will be brought down and closed by the springs automatically, thus confining the contents of the stove in case of accident, and thereby preventing the disastrous results which not unfrequently occur in consequence of the upsetting of the stove.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A stove or furnace door, which is closed by springs, substantially in the manner herein shown and described and for the purposes set forth.

The above specification of my invention signed by me this 27th day of March, 1867.

FRANK S. BISSELL.

Witnesses:

WM. S. BISSELL,

WM. H. COLLINGWOOD.