S. MORTON.

Stove-Door Guard.

No. 78,754. Patented June 9, 1868.

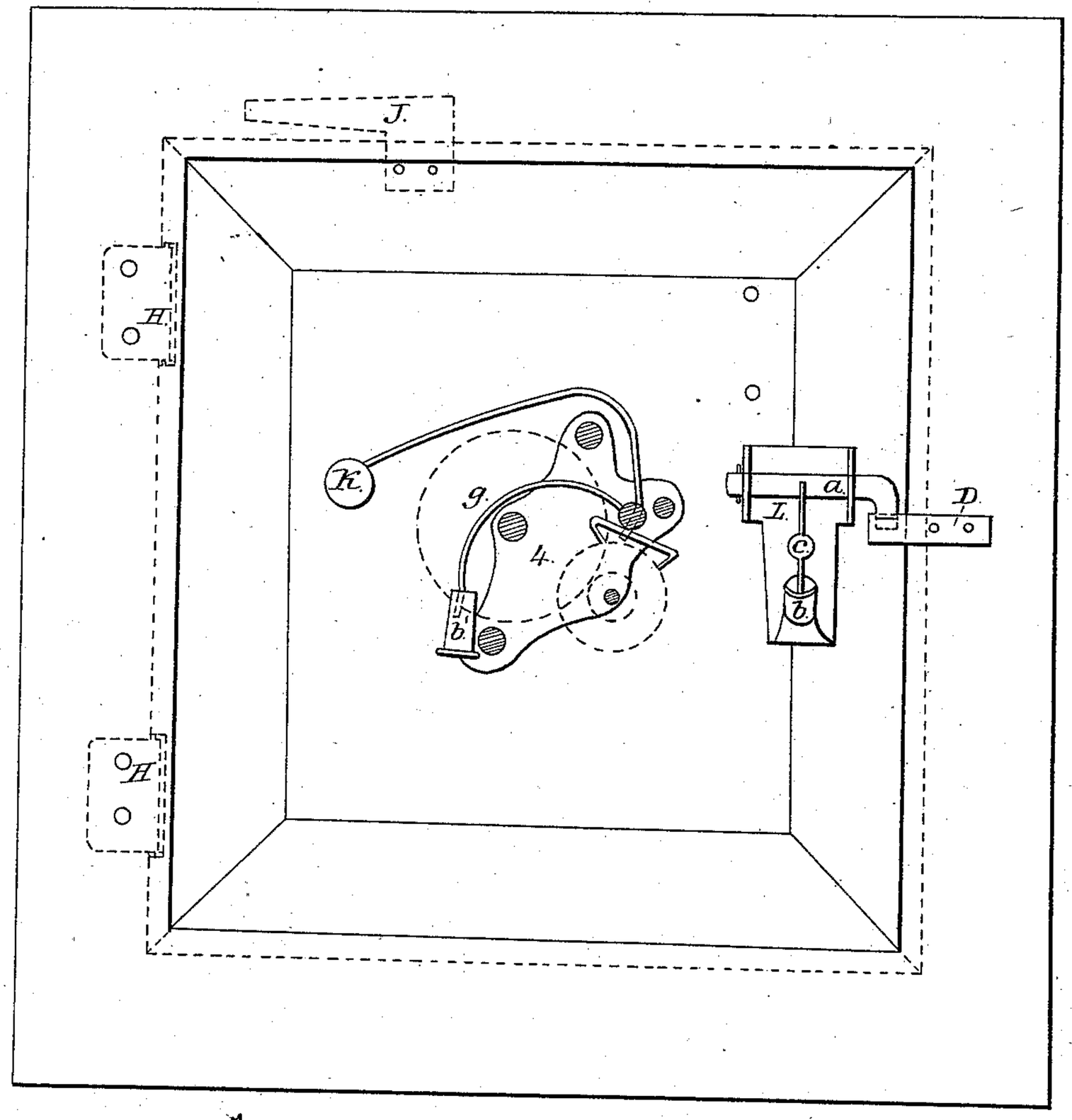

Fig. 1.

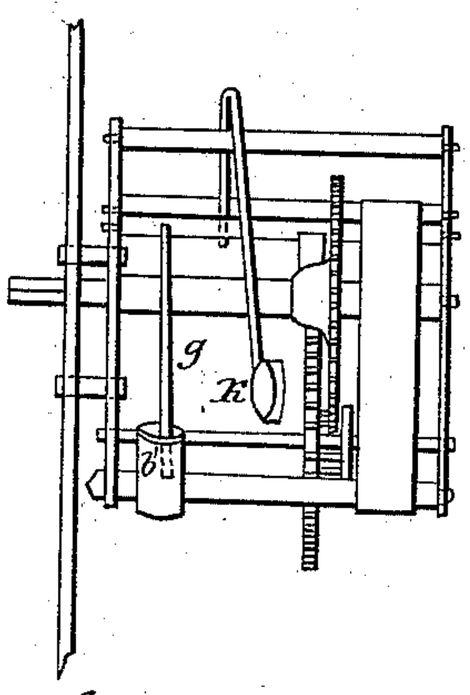

Fig. 2.

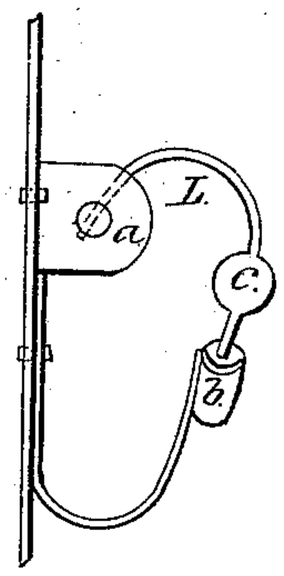

Fig. 3.

WITNESSES

H J Carpenter

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INVENTOR

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SMITH MORTON, OF VALPARAISO, INDIANA.

Letters Patent No. 78,754, *dated June* 9, 1868.

IMPROVEMENT IN ATTACHMENT FOR BAKE-OVEN DOORS.

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, SMITH MORTON, of the city of Valparaiso, in the county of Porter, in the State of Indiana, have invented a new and improved Mode of Preventing Articles from Burning in Ovens while Baking; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in so hanging the oven-door, that when free to move, its weight, or a spring, will cause it to open. It is to be provided with a movable latch or catch, some part of which is to be inserted in a fusible metal or metallic alloy, so that when the metal is not fused the latch or catch is stationary, and when the door is closed the catch will hold it firmly to its place until the oven shall have attained a given degree of heat, when the metal will fuse, and allow the latch or catch to turn and loosen its hold, and the spring or weight to open the door. I also attach an alarm, which is moved by a weight or spring, and may be such as is used in clocks, or any ordinary alarm, which is to be held motionless by some part of it being inserted in said fusible metal or metallic alloy, so that when fused by a given degree of heat attained by the oven, it will give notice by sounding an alarm, said metal or metallic alloy being so attached to the alarm that when not fused it is held from sounding.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I take any ordinary oven, such as is found in the cooking-stoves of the day, of which Figure 1, in the accompanying drawing, is the side of the oven with the door closed.

I is a spring, by which the door is opened, H the hinges, and P a point, upon which the latch fastens. *a* is the catch; *b*, a cup, to hold the fusible metal or metallic alloy; L, a wire, running from the catch into the metal in the cup. When the heat of the oven is sufficient to melt the metal, the spring I will cause the catch *a* to turn and the door to open.

Figures 2 and 4 represent the alarm.

b' is a cup, containing the metal or alloy; *g*, a wire from shaft which drives the hammer K. It is inserted in the cup *b'*, which contains the metal. When the metal is melted, and the alarm wound up, it will notify those in charge of the heat of the oven.

In general I compose this fusible metal of tin and bismuth, in such proportion as will insure its melting at a given temperature, which must be that at or immediately before that at which the article being baked will burn.

For ordinary baking, I use twelve parts tin to one of bismuth, but the proportion is to be varied as the taste of those for whom the baking is done, some choosing articles cooked with more heat than others.

When the temperature in an oven thus arranged reaches a point at which the article being baked will burn, the metal will fuse, and the door open, and the alarm notify those in charge, thereby avoiding all danger of the article burning.

What I claim as my invention, and desire to secure by Letters Patent, is—

The application, to the doors of ovens, of a latch or catch, held immovable by the within-described metal or metallic alloy while it is unfused, but which, when the said metal is fused, turns and unfastens itself, in combination with a weight or spring, to open the door, and the fusible metal and alarm on the inside of the oven, substantially as shown and described.

SMITH MORTON.

Witnesses:

CHARLES N. MORTON,

J. J. CARPENTER.