

(No Model.)

A. B. STRICKLER.
THERMOMETER ATTACHMENT FOR OVENS.

No. 471,654.

Patented Mar. 29, 1892.

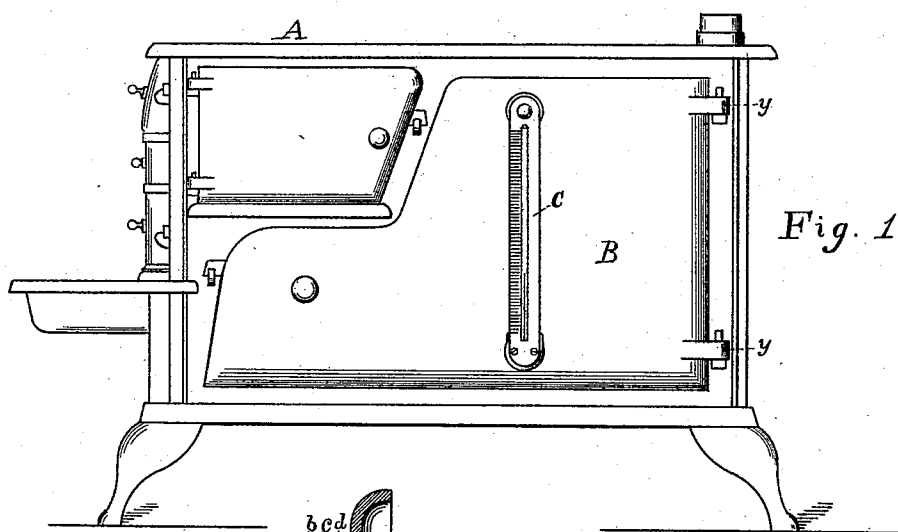


Fig. 1.

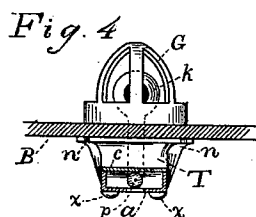


Fig. 4.

Fig. 3.

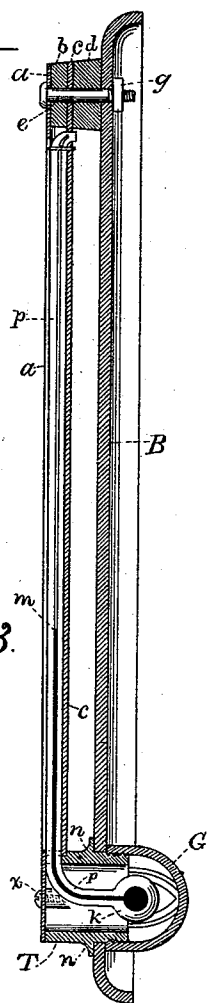
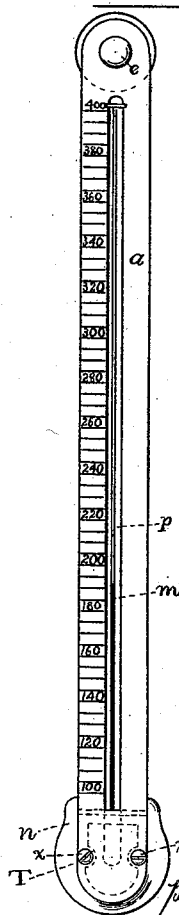


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

AMBROSE B. STRICKLER, OF SIOUX CITY, IOWA.

THERMOMETER ATTACHMENT FOR OVENS.

SPECIFICATION forming part of Letters Patent No. 471,654, dated March 29, 1892.

Application filed March 11, 1891. Renewed February 11, 1892. Serial No. 421,107. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE B. STRICKLER, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in a Thermometer Attachment for Ovens; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to that class of inventions that indicate the temperature of a given place, and the object is to provide means for the regulation of the temperature in stove-ovens, bakers' ovens, coke-ovens, furnaces, and all similar ovens or places where a steady temperature is desired.

My invention comprises the combination of a thermometer with an oven-door in such a manner that the exact degree of temperature in the oven can be readily perceived by looking at the face of the thermometer, which appears upon the outside of said oven-door.

My invention therefore consists in the novel construction of the parts and their combination, as will be hereinafter particularly described, and pointed out in the claims.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a plan view of stove, showing thermometer attached to the oven-door. Fig. 2 is a front view of thermometer, showing graduated dial-plate. Fig. 3 is a sectional view of oven-door and thermometer. Fig. 4 is a sectional view of thermometer.

Referring now to the illustrations, wherein like parts are designated by the same letters of reference, A designates a stove or range of any ordinary construction.

B designates the oven-door, hinged to the stove by the hinges *y y* in the ordinary manner.

C designates a thermometer of the construction used in my combination. Thermometer C consists of the following parts, viz: *a* designates the dial-plate with the degrees suitably graduated thereon. *c* designates the in-

ner or supporting plate. *b* and *d* designate blocks placed between said plates to keep them in position; *p*, a circular glass tube suitably secured to the dial-plate in a vertical position; *k*, the bulb at the lower end of the same; *m*, the mercury placed inside of the tube and bulb and which by rising or falling indicates the temperature upon the dial-plate. T designates a circular iron tube or chamber, which is placed around the bottom of the glass tube and which is intended to pass through the oven-door as a support to the lower part of the thermometer and a protection to keep the glass tube from getting broken. *n n* are flanges made of iron or steel, which are attached to the upper and lower sides of tube T to prevent said tube from passing completely through the oven-door and to hold it in place against the outside surface of said door. G designates a metal shell threaded at its inner end and adapted to screw onto the inner end of tube T and intended to be placed on the inside of and up against the oven-door for the purpose of protecting the bulb *k* and preventing it from getting broken, and also for the purpose of holding the tube and the bottom part of the thermometer in place upon the oven-door. A circular opening is to be made in the oven-door to permit the lower part of the thermometer so constructed to pass through the door. Plates *a* and *c* and blocks *b* and *d* are held together at the top of the thermometer by the bolt *e*, which passes through the same. This bolt may be extended so as to also pass through the oven-door, a small circular opening being provided in said door for this purpose and secured on the inside of the door by the nut *g*. A bolt having a round head at one end and a thread cut upon its other end is intended to be used for this purpose. *x x* designate screws used to hold the dial-plate in place.

The oven-door of a stove, furnace, or other article upon which my invention can be used can easily be molded with suitable openings to allow the attachment of the thermometer.

The operation of my device is readily perceived. The thermometer being attached to the oven-door, as described, the bulb will be inside of the oven, the face of the thermometer with the graduated dial-plate will appear upon the outside of the oven-door, and the

temperature of the oven, being registered on the dial-plate, will be known and perceived at a glance at said plate.

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

1. The combination of the oven-door B with the stove A, provided with suitable openings to receive a bolt and circular iron tube, as described, with the thermometer C, consisting of dial-plate *a*, plate *c*, blocks *b* and *d*, placed between said plates, the bolt *e*, passing through said plates and blocks and oven-door and held in place upon the inside of the door by nut *g*, the tube *p*, provided with the bulb *k*, the mercury *m*, and suitable fastenings for securing said tube to the dial-plate, the flanges *n n*, the tube T, the shell G, adapted to screw onto the inner end of said tube, and the lower part of a thermometer adapted to pass through an oven-door and held in place there, all substantially as described.

2. The combination of an oven-door provided with a small opening to receive a bolt

and a larger opening underneath the small opening and in a vertical line with it to receive the bulb end of a thermometer of the construction described with a thermometer composed of a dial-plate *a*, back plate *c*, blocks *b* and *d*, placed between said plates at the upper end of the thermometer, the glass tube *p*, vertically secured to the dial-plate and provided with a bulb *k*, and mercury *m*, adapted to rise and fall within said tube, the flanges *n n*, the iron tube T, threaded at its inner end, the shell G, also threaded at its inner end to allow it to screw onto the threaded end of said iron tube to hold the tube in place when inserted in the opening of the oven-door above described, and screws *x x*, used to secure the dial-plate to the back plate, all constructed and arranged substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

AMBROSE B. STRICKLER.

Witnesses:

W. H. HOYT,
GUY C. RICH.