

(No Model.)

J. D. WARD.
THERMOMETER CASE.

No. 482,050.

Patented Sept. 6, 1892.

Fig. 1.

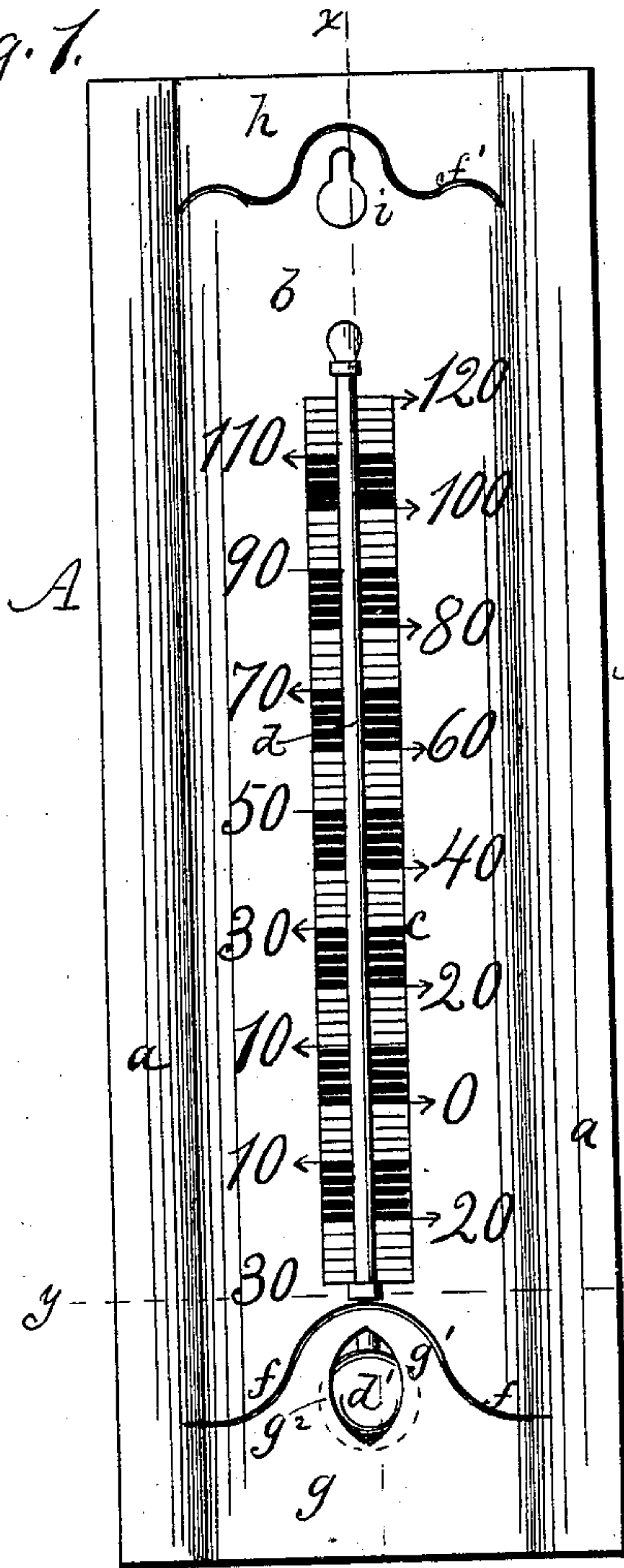


Fig. 2.

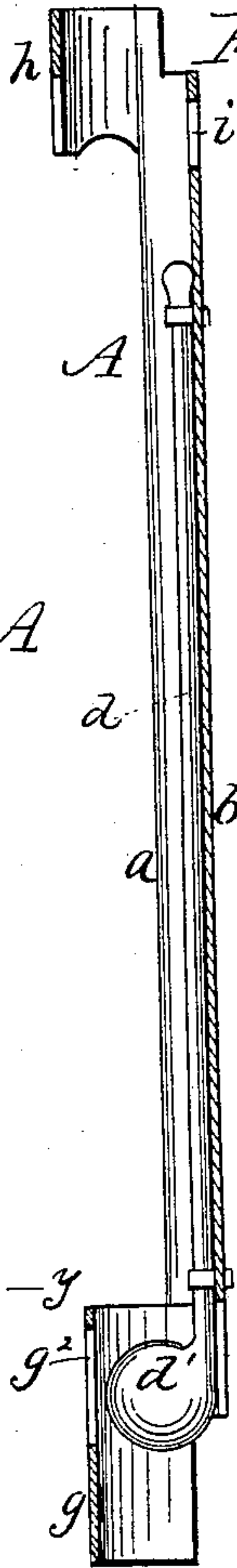


Fig. 4.

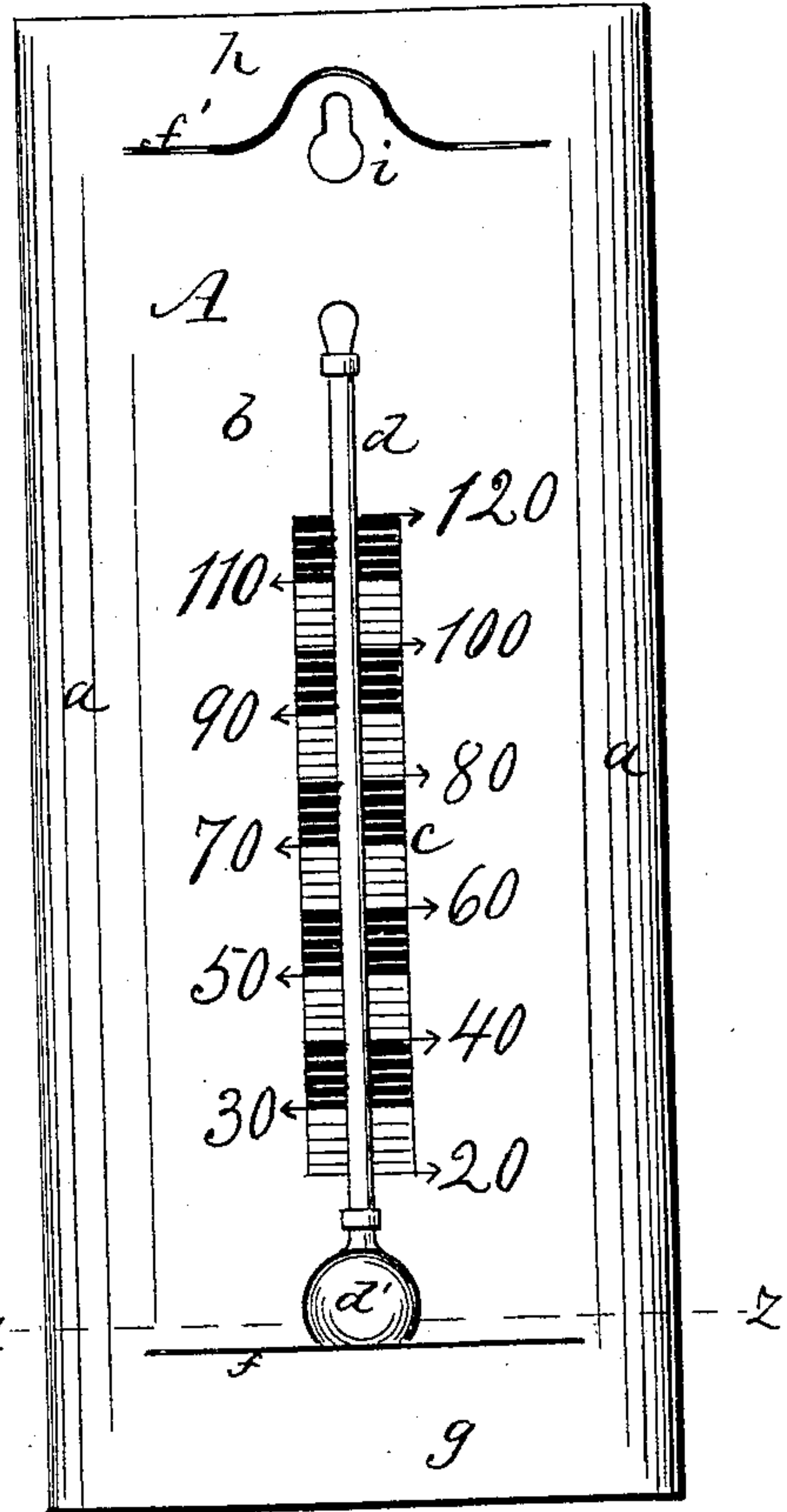


Fig. 3.

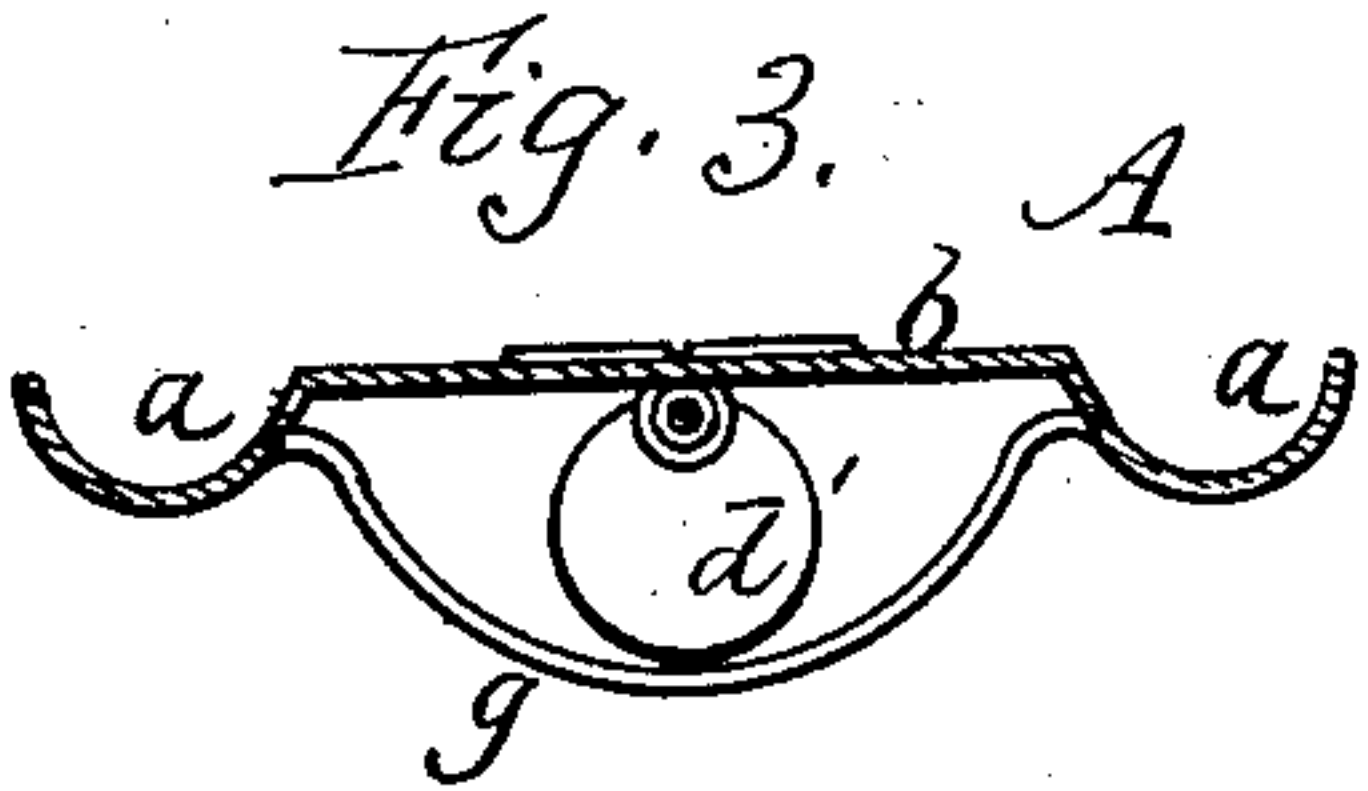
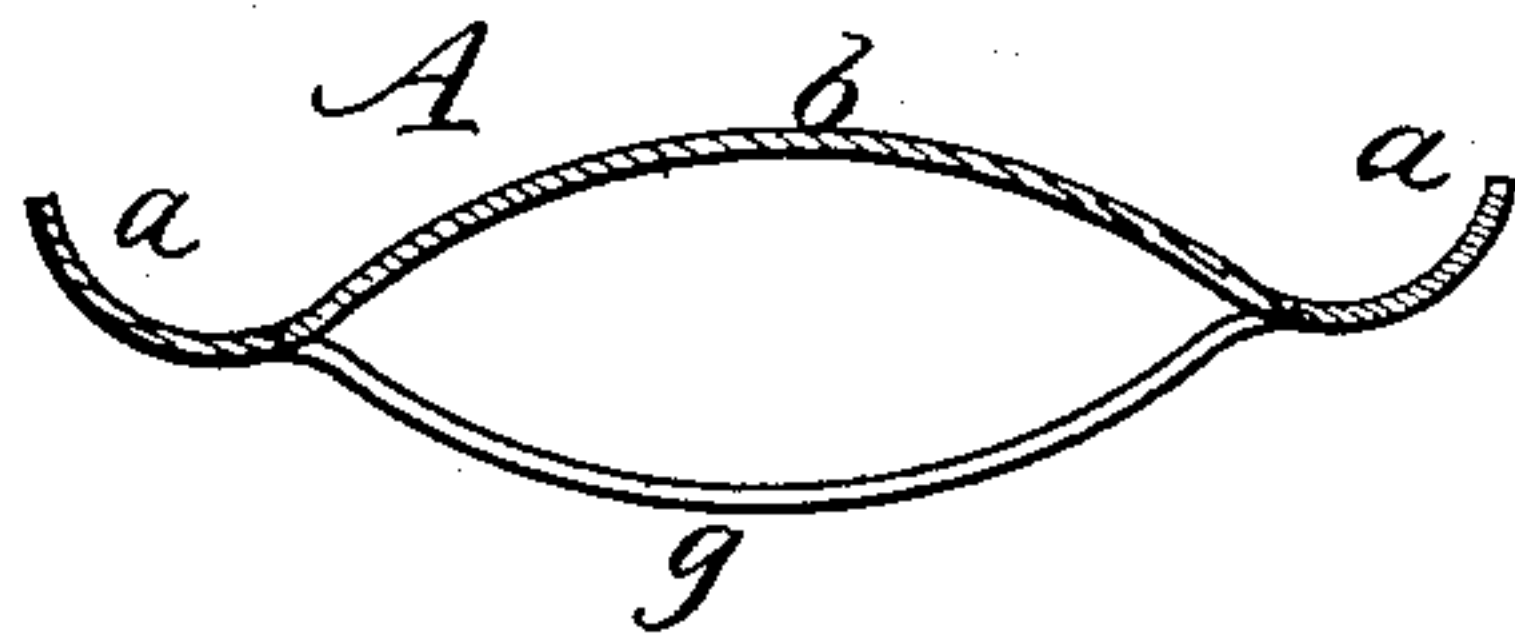


Fig. 5.



Witnesses

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John C. Culver

John D. Ward, Inventor
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UNITED STATES PATENT OFFICE.

JOHN D. WARD, OF PHELPS, NEW YORK.

THERMOMETER-CASE.

SPECIFICATION forming part of Letters Patent No. 482,050, dated September 6, 1892.

Application filed January 21, 1892. Serial No. 418,740. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. WARD, of Phelps, in the county of Ontario and State of New York, have invented a certain new and useful Improvement in Thermometer-Cases; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this specification.

The object of my improvement is to make the case from a single piece of sheet metal and to form the same with a guard at the bottom, which shields the bulb.

To this end the invention consists in the construction, and arrangement hereinafter described and claimed.

In the drawings, Figure 1 is a front elevation of a thermometer, showing my improvement. Fig. 2 is a longitudinal vertical section of the same in line xx of Fig. 1. Fig. 3 is a cross-section of the same in line yy of Fig. 1. Fig. 4 is a view similar to Fig. 1, but showing a modification. Fig. 5 is a cross-section of Fig. 4 in line zz .

The case A is made from a single piece of flat sheet metal. It is struck up with two side ribs or beads a , which extend from top to bottom and give stiffness and strength, and also present an ornamental appearance. The body b is struck back and may be flat, as shown in Figs. 1 and 3, or concave, as shown in Figs. 4 and 5. The scale c is printed on the back, and the tube d is also mounted thereon in the usual way.

My improvement is as follows: A cross-slit f is cut in the metal near the bottom, extending across the body b , but not across the side ribs a . The body of metal below the slit is then stamped or swaged outward, forming the convex guard g . This guard projects outward sufficiently to leave space for the glass bulb d' to rest between it and the plane of the back of the case, so that when the case is hung against a side wall the bulb will not come in contact therewith. In Fig. 1 the slit f is of curved form, making an arch g' , which projects up such a distance as to completely cover the bulb. An opening g^2 is made in this arch opposite the bulb, through which air can freely pass, thereby making the bulb more sensitive to the surrounding

temperature. The guard thus formed corresponds with the ordinary guards of thermometer-cases, which are made of several parts by seaming or otherwise joining together and form a close chamber in which the bulb lies and through which air can pass only in a circuitous way. This device, being made from a single piece, has the advantage of greater cheapness and of admitting air more directly to the bulb, whereby it is more sensitive to variations in temperature. It also acts as a perfect shield and presents an ornamental appearance. The top of the case is cut with a corresponding cross-slit f' , and a guard h , of the same form as that below, is struck out. In the plane back of the case is formed an eyelet i , by which the device may be hung on a nail or other support. The scale may be marked directly on the back of the case or on a separate strip attached to the case, and it may be made of any known form. The figures which indicate degrees are marked in large size on opposite sides of the scale, as shown.

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

1. A thermometer-case made from a single piece of sheet metal provided with a guard g , struck out from the bottom, forming a shield and cover to the bulb, as herein shown and described.

2. A thermometer-case made from a single piece of sheet metal provided with a guard g , struck out from the bottom, said guard having an arch g' , with an opening g^2 therein which comes opposite the inclosed bulb, as and for the purpose specified.

3. A thermometer-case made from a single piece of sheet metal provided with the body b , the side ribs a , the guard g at the bottom, forming a shield to the bulb, and the corresponding guard h at the top, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN D. WARD.

Witnesses:

R. F. OSGOOD,
CHAS. A. WIDENER.