

(No Model.)

A. BAYER.  
THERMOMETER.

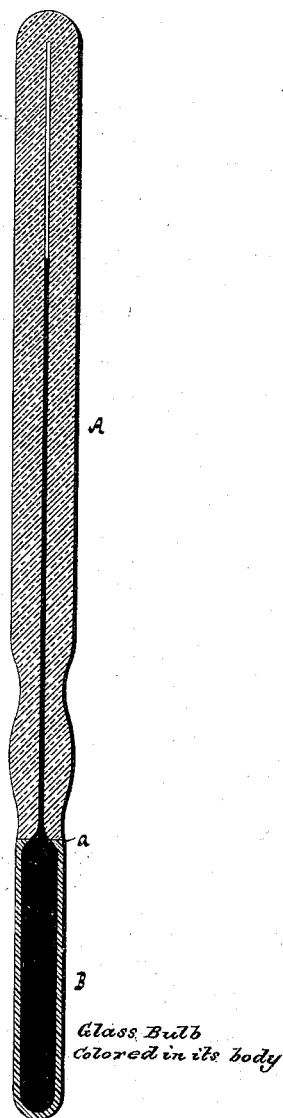
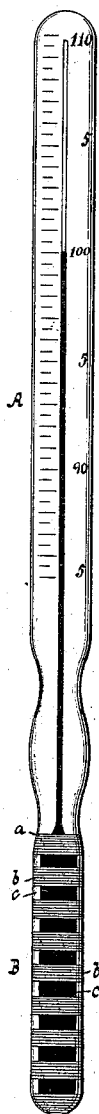
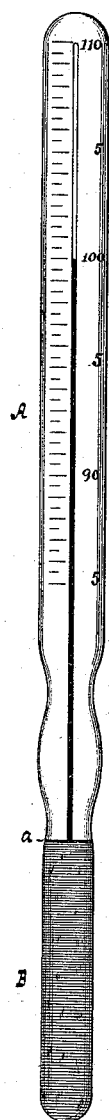
No. 383,691.

Patented May 29, 1888.

Fig. 1.

Fig. 3.

Fig. 2.



**WITNESSES:**

A. Faber du Faurgr.  
William Miller

*INVENTOR.*

Adolph Bayer.

BY

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# UNITED STATES PATENT OFFICE.

ADOLPH BAYER, OF BROOKLYN, NEW YORK.

## THERMOMETER.

SPECIFICATION forming part of Letters Patent No. 383,691, dated May 29, 1888.

Application filed December 29, 1887. Serial No. 259,317. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH BAYER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Thermometers, of which the following is a specification.

My invention relates to improvements in clinical thermometers; and it consists in a clinical thermometer having a transparent glass tube and a bulb of glass colored in its body, all of which is more fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a face view of a thermometer embodying my invention. Fig. 2 is a vertical section thereof. Fig. 3 is a face view of a modification.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates a thermometer-tube, which is made of the usual transparent glass.

B is the bulb, which is made from a glass rendered more or less opaque by the use of coloring-matter in the body thereof. In the manufacture of such thermometers the tube A is drawn in the usual manner, and the bulb of colored glass is then attached at a to the tube, according to the usual method of uniting glass objects.

The glass used for the bulb may be of any color, varying in shades from opaque white to black, or two or more colors may be combined in one bulb.

In Fig. 3 I have shown transverse portions b of colored glass alternating with transverse portions c of transparent glass, said portions extending about the girth of the bulb—however, they could extend lengthwise. Instead of the transparent portions c colored portions could be substituted, the latter portions differing in color from those marked b.

The advantage of a colored bulb is that the thermometer is rendered thereby more sensitive to changes in heat, which is especially valuable in clinical thermometers, as these are

brought into contact with the person and should indicate any slight change in temperature. The colored bulb also improves the appearance of the thermometer.

It is obvious that a thermometer having its bulb externally blacked or coated with paint is not practicable for clinical purposes, since if a bulb of this kind should be inserted into the mouth or the rectum the paint would be liable to become dissolved and removed; and, furthermore, in cleaning the thermometer, which is necessary after each application, the paint is liable to wash off. These objections are obviated by employing a thermometer having a bulb colored in its body.

It is evident that the bulb must not necessarily be colored throughout the entire thickness of the glass of which it is made, as a coating of colored glass or enamel over the transparent glass would answer the same purpose. The colored bulb can be applied to thermometer-tubes of any construction, and therefore I do not wish to restrict myself to the ones shown.

It is well known that thermometers are made containing a colored liquid which gives to the bulbs the appearance of being colored, although the bulbs are made of transparent glass. This of course I do not claim.

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

1. A thermometer having a transparent glass tube and a bulb of glass colored in its body, substantially as shown and described.

2. A thermometer having a transparent glass tube and a bulb of glass having transparent portions b and portions c, colored in their body, substantially as shown and described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

ADOLPH BAYER. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.