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A. A. WEISS, JR

2,395,701

THERMOMETER

Filed Nov. 16, 1943

FIG. 1.

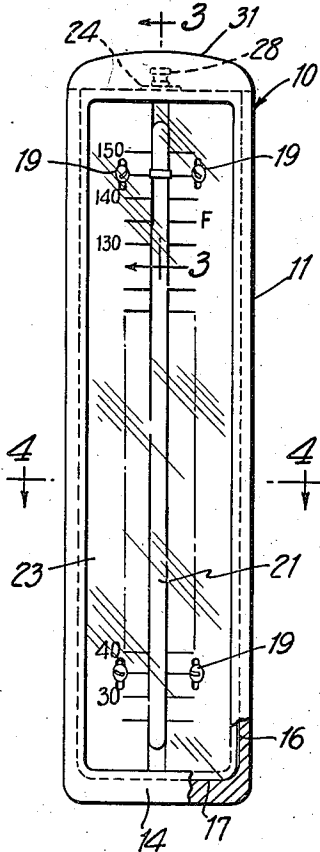


FIG. 2.

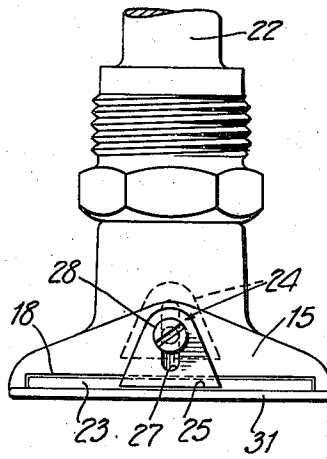


FIG. 3.

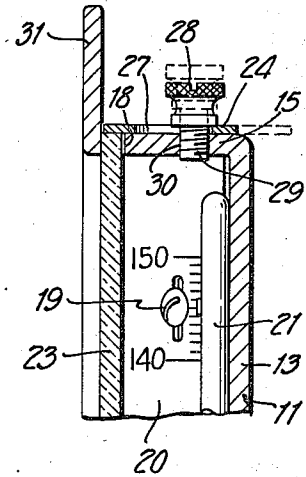


FIG. 5.

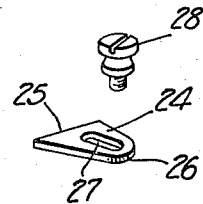
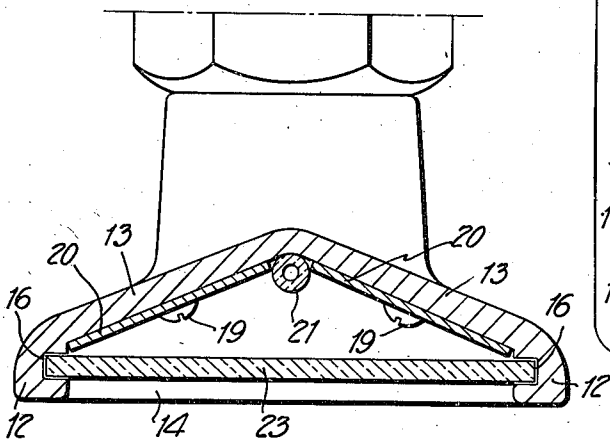
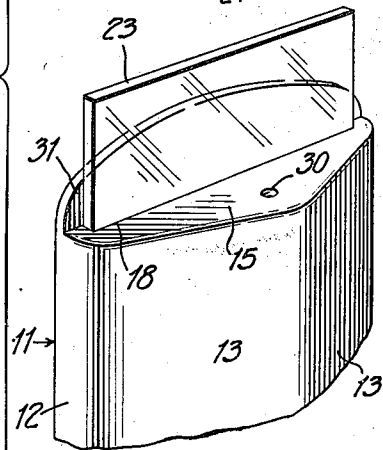


FIG. 4.



WITNESS
E. A. Weiss, Jr.

INVENTOR
 ALBERT A. WEISS, JR.

BY
E. A. Weiss, Jr.
 ATTORNEYS

UNITED STATES PATENT OFFICE

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THERMOMETER

Albert A. Weiss, Jr., Brooklyn, N. Y.

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2 Claims. (Cl. 73—374)

This invention relates to improvements in thermometers.

The primary object of the invention resides in a thermometer of the commercial type having a novel means for removably mounting the transparent panel in the shell or casing to facilitate easy removal of the panel for cleaning and for replacement thereof when cracked or broken.

Another feature of the invention is to provide a thermometer in which the transparent panel is slidably inserted into the casing through a slot in the top thereof, the top end of the panel serving to close the slot when the panel is fully inserted into position.

A further feature of the invention is the provision of a thermometer which includes a novel means for securing the sliding transparent panel in position within the casing to prevent accidental upward sliding movement thereof which might be caused by vibration, or by unscrupulous manual sliding of the panel.

Other features of the invention will appear as the following specification is read in conjunction with the accompanying drawing, in which,

Figure 1 is a front elevational view of my improved thermometer with a part broken away in section.

Figure 2 is a top plan view, the dotted lines indicating the keeper plate in releasing position.

Figure 3 is an enlarged fragmentary vertical sectional view on the line 3—3 of Figure 1, the dotted lines indicating the clamping screw and keeper plate in releasing position.

Figure 4 is an enlarged horizontal sectional view on the line 4—4 of Figure 1.

Figure 5 is a fragmentary collective perspective view of the top end of the thermometer looking at the rear thereof, with the transparent panel partially extending therefrom, the keeper plate and clamping screw shown separated.

Referring to the drawing by reference characters, the numeral 10 designates my improved thermometer in its entirety which includes an elongated casing 11 which is cast in one piece and is of substantially rectangular shape in front elevation. The casing 11 is open at the front and includes parallel side walls 12—12 and rearwardly converging rear walls 13—13 whereby the casing is substantially V-shaped in horizontal section. The casing also includes a bottom wall 14 and a top wall 15. The side walls 12—12 are provided with parallel grooves 16—16 in the inner sides thereof, and communicating with these grooves is a groove 17 provided in the inner side of the bottom wall 14. The top wall 15 is

provided with a slot 18 which extends between the top ends of the grooves 16—16 and is in alinement therewith.

Fixedly secured by screws 19 to the front sides of the rear walls 13—13 are graduated scale plates 20—20, the inner vertical edges terminating in spaced relation adjacent the crotch portion of the casing and disposed between the plates is the vertical thermometer tube 21, the lower end of which extends into a rearwardly projecting tubular element 22. Whereas the tubular element 22 is shown as extending at right angle to the glass thermometer tube 21, the same may extend downwardly, depending upon the particular use to which the thermometer is to be applied.

The open front of the thermometer casing 11 is closed by a transparent panel 23 which may be of glass or plastic and which is of a thickness and width to snugly slide through the slot 18 and have its side edges disposed in the grooves and with its lower edge seated in the groove 17. The transparent panel 23 is of a length so that its top edge is disposed on the same plane as the exterior of the top wall 15 or slightly therebelow as best illustrated in Figure 3.

For preventing upward sliding movement of the panel 23 I provide a keeper plate 24 which is substantially triangular shape in plan and includes a straight front edge 25 and a rear curved edge 26. An elongated slot 27 is provided in the keeper plate and extends fore and aft thereof. The keeper plate 24 rests upon the top wall 15 with its straight front edge 25 overlapping the top edge of the panel 23 and it is secured in such position by clamping screw 28, the threaded shank 29 thereon freely passing through the slot 27 and having threaded engagement with a threaded opening 30 provided in the top wall 15.

With the parts shown in full lines in Figure 3, assume that access to the interior of the casing 11 is desired for repair or cleaning purposes, the operator may unscrew the clamping screw 28 to the dotted position, thus releasing the clamping action on the keeper plate 24. The keeper plate 24 may now be slid rearwardly to a position where the straight front edge 25 is clear of the slot 18. The transparent panel 23 may now be slid upwardly as illustrated in Figure 5 and fully withdrawn from the grooves 16. This mounting of the panel within the casing and the novel keeper means also permits the easy replacement of the panel 23 should the same become broken.

Rising upwardly from the top wall 15 at the

front thereof, is a flange 31 which acts as a blind for concealing the keeper plate 24 and the clamping screw 28 from view when looking at the front of the thermometer. Also, when the keeper plate 24 is in closed position over the slot 18, the straight front edge 25 abuts or is in close proximity to the flange 31 and is prevented thereby from accidental turning. It is necessary to slide the keeper plate rearwardly in order to clear the slot 28 to enable the upward sliding of the transparent panel 23.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a thermometer, a casing open at its front and adapted to mount a thermometer on its rear wall, said casing having a top wall and vertical parallel grooves in the opposed walls of the open front thereof, said top wall having a slot whose ends terminate in vertical alinement with

said grooves, a transparent panel having its side edges disposed in said grooves and its top edge terminating within said slot, a keeper plate resting upon the top wall and normally overlying the slot, said keeper plate having a slot therein extending in a front to rear direction, and a clamping screw having a head and threaded shank freely passing through the slot in the keeper plate and threaded in an opening provided in the top wall with the head in clamping engagement with said keeper plate.

2. In a thermometer as set forth in claim 1 in which the casing has an upwardly extending flange coextensive with the front wall of the slot in the top wall thereof, and wherein the keeper plate is provided with a straight front edge disposed in close proximity to the flange for preventing accidental turning movement thereof relative to the clamping screw.

ALBERT A. WEISS, Jr.