

K. K. ROBY.
THERMOSTAT.
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1,437,818.

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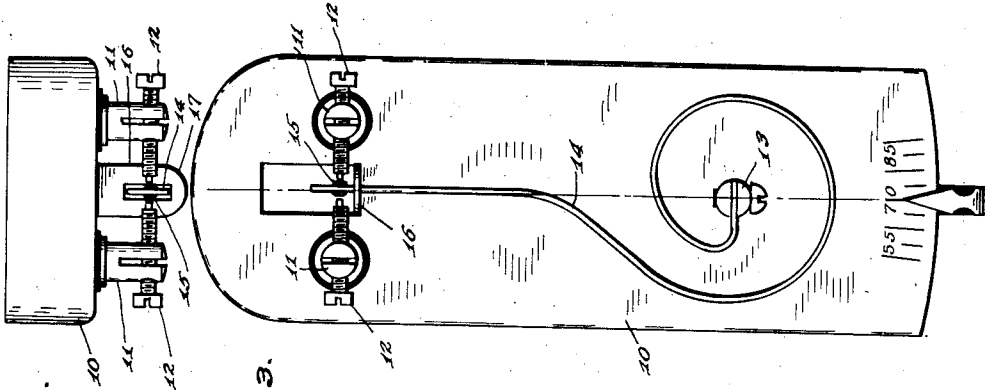


Fig. 2.

Fig. 3.

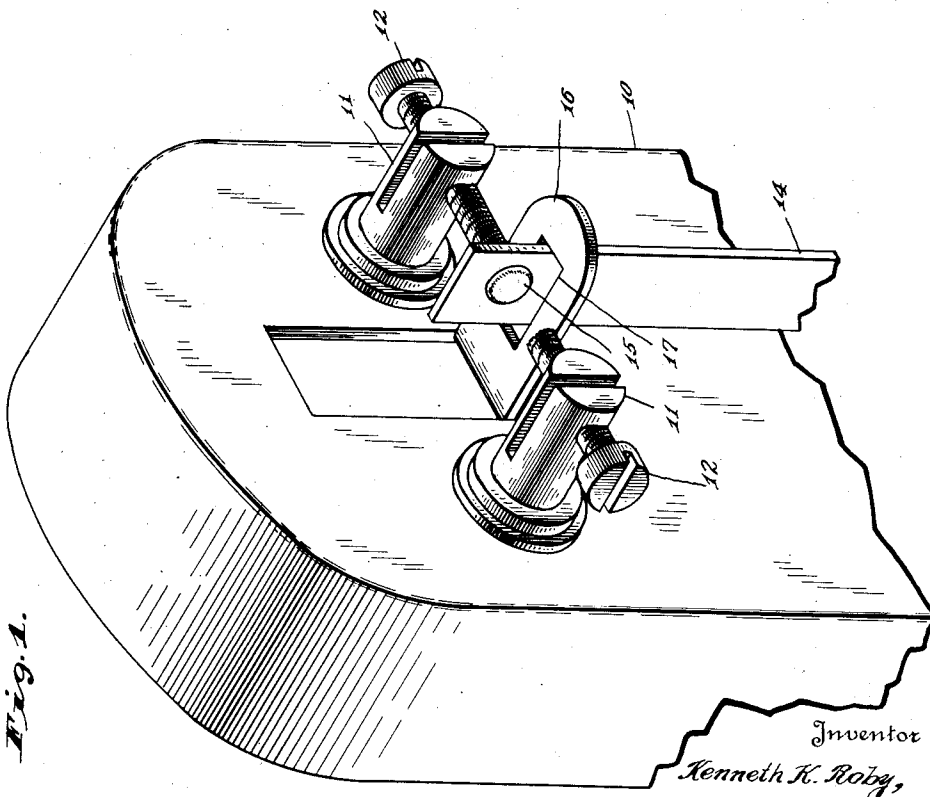


Fig. 1.

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UNITED STATES PATENT OFFICE.

KENNETH K. ROBY, OF WABASH, INDIANA, ASSIGNOR TO THE HONEYWELL HEATING SPECIALTIES COMPANY, OF WABASH, INDIANA, A CORPORATION OF INDIANA.

THERMOSTAT.

Application filed November 7, 1921. Serial No. 513,315.

To all whom it may concern:

Be it known that I, KENNETH K. ROBY, a citizen of the United States, residing at Wabash, in the county of Wabash and State of Indiana, have invented a new and useful Thermostat, of which the following is a specification.

In the shipment of that class of electric-contact thermostats which are commonly used for controlling damper-operating devices, the adjustable contact terminals are carefully and closely adjusted with relation to the thermostatic tongue which carries a corresponding contact button. When such a device is shipped it is found that the tongue may become jarred and laterally displaced in such manner that its contact button becomes caught upon one of the fixed terminals so that, when the device is put in place by the average workman it is found that a closed circuit is established and the injury done by the improper interlocking of the parts tends to prevent a proper readjustment of the parts.

The object of my present invention is to provide a simple, inexpensive, but efficient preventive of the difficulty mentioned above.

The accompanying drawings illustrate my invention: Fig. 1 is a fragmentary perspective of a thermostat embodying my invention; Fig. 2 is a plan; and Fig. 3 is a front elevation.

In the drawings, 10 indicates the usual sheet-metal main body of the instrument carrying the insulated terminal parts, 11, 11, adjustable contact terminals, 12, 12, rotatable terminal post 13, and thermostatic tongue 14 provided with contact button 15 lying between terminals 12, 12.

In use, the two terminals 12, 12 are adjusted so very close to the opposite faces of button 15, for any given neutral position of the free end of tongue 14, that the button is barely free from each contact terminal 12.

As a consequence the button 15 normally rests against one or the other of the terminals 12 because the surrounding temperature generally differs from the neutral-position temperature. Under such normal con-

ditions a lateral displacement of the tongue 14, by an amount slightly greater than half the diameter of the button 15, will lock a side of the button against a side of the contacted contact point and thus tend to hold the tongue against a temperature readjustment of the tongue.

To prevent this difficulty I strike up, from body 10, a guard ear 16 perforated by a short slot 17 having a width ample to permit freedom of adjustment and temperature movement of tongue 14, and a length very slightly in excess of the width of tongue 14. This guard ear is arranged closely adjacent terminals 11, and tongue 14 is projected through slot 17 and is thereby prevented from lateral displacement sufficient to permit the objectionable results mentioned above.

By this simple means I am able to prevent a difficulty which has long given much trouble to manufacturers of this type of instrument.

I claim as my invention:

1. In a thermostat the combination with the main body, thermostatic tongue provided with a contact button, and cooperating contact points, of a guard ear having parts disposed on opposite sides of the tongue so as to limit lateral displacement of the tongue relative to the contact points to an amount less than that required to carry the button out of alinement with the contact points while permitting a free movement of the tongue on its support.

2. In a thermostat the combination with the main body, thermostatic tongue provided with a contact button, and cooperating contact points, of a guard member carried by the main body and cooperating with the thermostatic tongue to limit possible lateral displacement of the tongue relative to the contact points to an amount less than that required to carry the button out of alinement with the contact points while permitting a free movement of the tongue on its support.

3. In a thermostat the combination with the main body, opposed contact point and thermostatic tongue arranged with its free

end to move toward and from the contact point, of a guard having a portion overlying a portion of the contact tongue near its free end so as to limit displacement of the contact tongue laterally of the line of movement of the tongue toward and from the contact point to an amount less than the contacting area of the tongue by permitting a free movement of the tongue on its support. 10

In witness whereof, I have hereunto set my hand at Wabash, Indiana, this 27th day of October, A. D., one thousand nine hundred and twenty-one.

KENNETH K. ROBY.