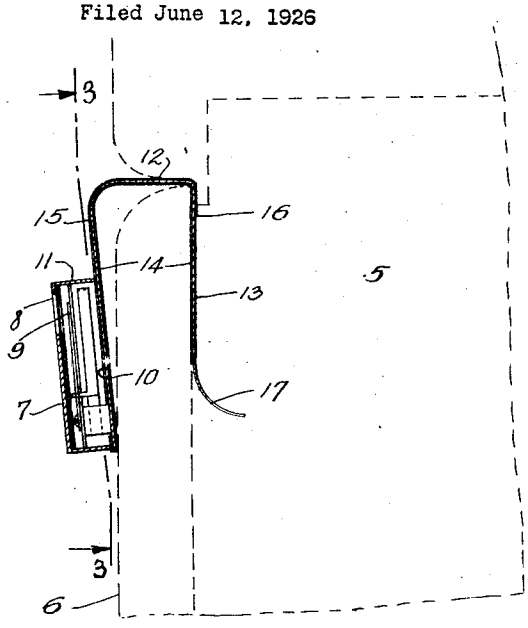
Dec. 13, 1927. 1,652,838

H. E. RIDER

HEAT INDICATOR

Filed June 12, 1926

Fig. 1,



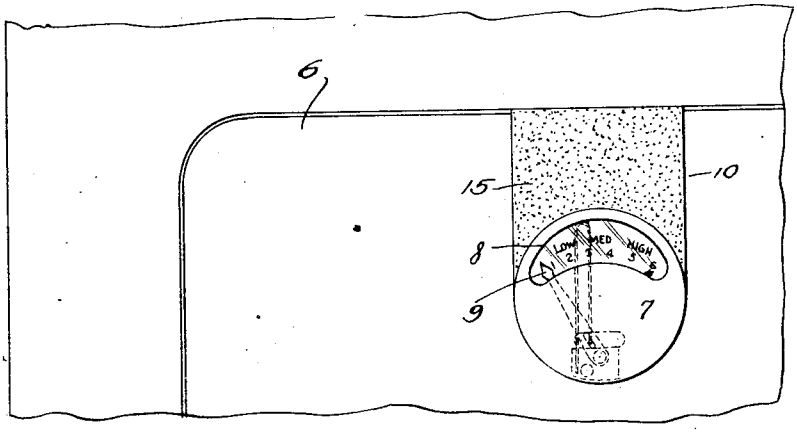




Fig. 2,

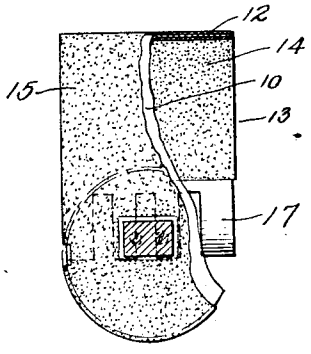



Fig. 3,

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# UNITED STATES PATENT OFFICE.

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## HEAT INDICATOR.

Application filed June 12, 1926. Serial No. 115,573.

This invention relates to thermostats or heat indicating devices and more particularly to a novel and improved portable heat register or indicator designed for convenient, detachable connection to an oven door, for instance, whereby the interior temperature may be determined from the outside of the oven proper.

One of the objects of my invention is to provide a thermostat or heat indicating device constructed and arranged to be positioned on the outer side of the door of a conventional type oven and in detachable relation thereto without effecting the opening and closing of said door, and insulated therefrom, whereby the oven temperature may be determined on an exteriorly located register or dial.

Another object of my invention is to provide a thermostat casing and clamping means threfor constructed for detachable connection to the top of an oven door and in which the clamping means is insulated from the body of the door permitting the interior temperature to be determined on an exterior dial or register by conduction to the thermostat indicating arm.

To enable others skilled in the art to fully comprehend the underlying features of my invention, that they may embody the same in the various modifications contemplated, drawings depicting a preferred form have been annexed hereto as illustrating the device or apparatus in which

Fig. 1 is a vertical, sectional view showing the device in position on the door of an oven, the latter being shown in dotted lines.

Fig. 2 is a front view.

Fig. 3 is a view taken on the line 3—3 of Fig. 1.

Referring now to the drawings wherein ike reference numerals designate corresponding parts throughout the several views, 5 designates the interior of an oven and 6 the front oven door, shown in dotted lines to illustrate the use and application of my invention.

The front face or wall 7 of the thermostat casing may be circular as shown or designed in any other convenient shape, being provided with a segmental or arcuate observation opening 8 with a transparent window suitably graduated. The indicating arm 9 of any suitable thermostat mechanism is adapted to operate across the observation opening, the position of which will determine the heat either in terms of degrees or relatively, viz, high, low and medium.

The thermostat casing is provided with a rear wall 10 that extends considerably above the top 11, being bent inwardly as at 12, substantially at right angles, and then downwardly as at 13, forming a U-shaped clamp which may frictionally engage and be seated on the top of the oven door. The rear wall of the thermostat is insulated throughout its length as at 14, 15 by any suitable insulating material, such as asbestos for instance, it being observed however, that the outside insulation material 15 extends just beyond the top edge of the oven door as at 16 so that the portion 13 of the U-shaped clamp is exposed to the heat of the oven. The extreme, lower free end of the clamp 17 is bent or curved outwardly so as to extend somewhat within the interior of the oven chamber and by conduction the degree of heat will be indicated by the position of the arm of the thermostat of the casing.

It is of course understood that the metal comprising the rear wall of the casing and the U-shaped clamp is of very thin metal and that the insulation is correspondingly thin so that it does not offer an obstruction to the closing of the door or permit of the escape of heat within the oven. The insulation on the metal thus prevents conduction of heat that may be stored up by reason of the door itself becoming very hot. The clamping portion makes contact with the door at but two places, viz on the outside of the door and at the point of locking connection of the top of the door. The inner exposed portion 13 of the clamp and the free, non-insulated bent or curved end 17 is directly effected by the heat within the oven so that by conduction it is transmitted to the thermostat mechanism proper and thus observed on the outside of the oven door.

I am aware of that class of oven thermostats built or installed within the body of oven doors whereby the interior heat of the oven may be determined. By my invention, however, the device may be positioned and used where and when desired, being detachable. A more accurate determination of the generated heat may be had by my device for the reason that being insulated from the door proper, it does not register the induced heat of the door itself which is difficult to

overcome in the first mentioned type of thermostats. Another advantage is the fact that by reason of its detachable feature, the thermostat can be replaced, repaired or moved where desired without effecting the use or operation of the oven door.

Having shown and described my invention, what I now claim as new and desire to secure by Letters Patent of the U. S. is:

1. A heat indicator comprising a casing having a thermostat and temperature indicating means including a calibrated dial, a partly insulated metal strip connected in thermal relation with said thermostat at one end thereof, said strip being formed for detachable connection with the door of an oven.

2. A heat indicator comprising a casing having a thermostat and temperature indicating means including a calibrated dial, a metal strip insulated on opposite faces connected in thermal relation with said thermostat at one end thereof, a portion of said strip being exposed and adapted to be clamped to the top of an oven door whereby said exposed portion may be effected by the heat of an oven and registered by the thermostat.

3. A heat indicator comprising a casing having a thermostat and temperature indicating means including a calibrated dial, a metal strip serving as a clamp formed with the rear wall of the casing, said strip being insulated and a portion of the clamp being exposed on one face thereof whereby the interior heat of an oven may be registered by conduction through the thermostat.

4. A heat indicator comprising a casing having a thermostat and temperature indicating means including a calibrated dial, an insulated metal strip formed with the rear wall of the casing, said strip being bent in the form of a U-shaped clamp for detachable connection to the top of an oven door, a portion of said clamp being exposed on one face thereof whereby the interior heat of an oven may be registered by conduction through the thermostat.

In testimony whereof I have affixed my signature.

HERBERT E. RIDER.