

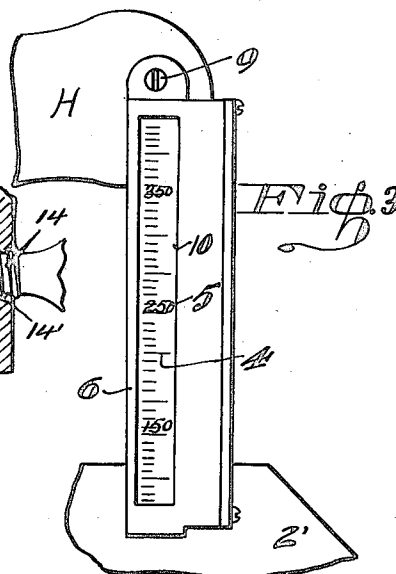
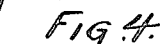
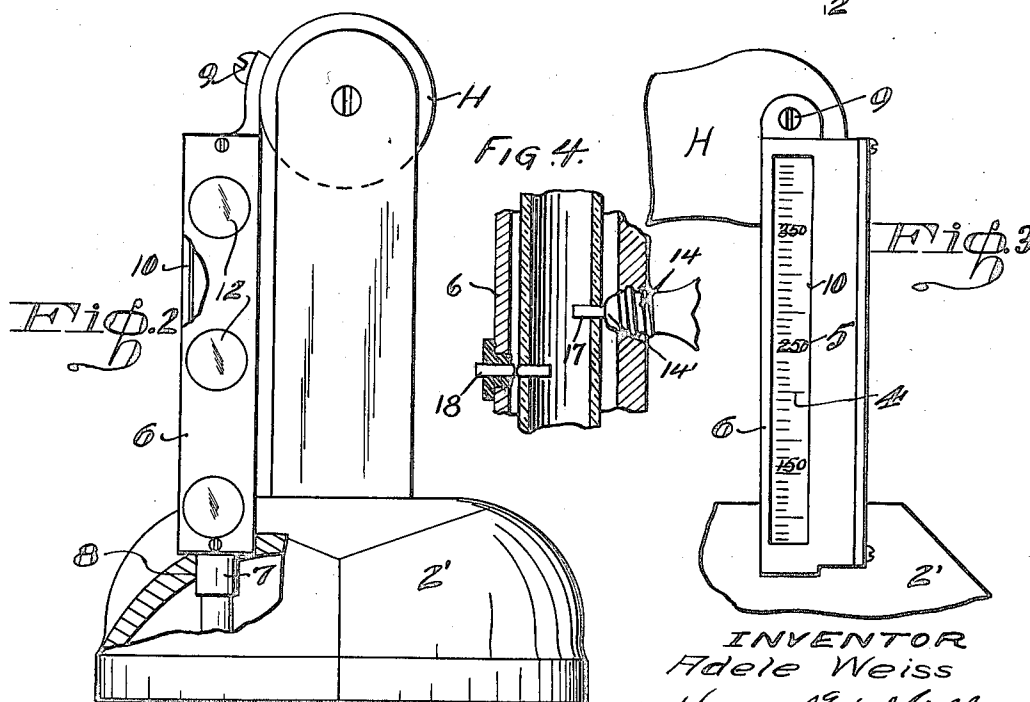
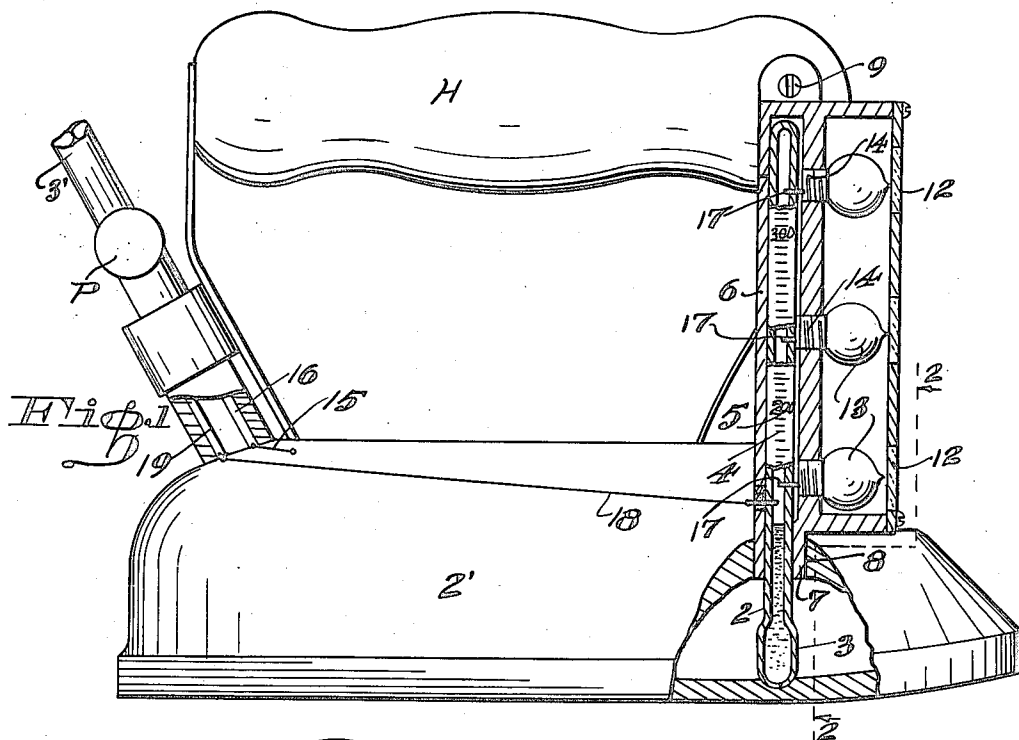
Dec. 18, 1923.

1,478,271

A. WEISS

HEAT INDICATOR FOR ELECTRIC IRONS

Filed March 16, 1920



INVENTOR
Adele Weiss

Adele Weiss

By Hazard Miller

Atty' vs.

UNITED STATES PATENT OFFICE.

ADELE WEISS, OF PASADENA, CALIFORNIA.

HEAT INDICATOR FOR ELECTRIC IRONS.

Application filed March 16, 1920. Serial No. 366,337.

To all whom it may concern:

Be it known that I, ADELE WEISS, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented new and useful Improvements in Heat Indicators for Electric Irons, of which the following is a specification.

This invention relates to electric irons and has for its object to provide in irons of this kind means for automatically indicating different stages of temperature of the iron body so as to enable the control of temperature to provide for the efficient and safe ironing of different kinds of material. The invention consists of the construction and combination, an embodiment of which invention is illustrated in the accompanying drawings and described and claimed hereinafter.

Figure 1 is a side elevation and partial section of an iron to which the invention is applied and which is shown in section, the electric circuit contacts being diagrammatically shown.

Figure 2 is a sectional, elevational view, the section being on line 2—2 of Fig. 1.

Figure 3 is a side elevation of the thermometer casing showing a portion of the iron.

Figure 4 is a detail of a form of contact arrangement for the electric circuit.

The present invention consists of a set of temperature controlling signal devices for indicating approximately the different stages at predetermined degrees of temperature during the use of an iron of the electrically heated type such as conventionally shown at 2'. At one end of the iron is a suitable pull plug P connected to an extension cord 3' taking current from any suitable source. To secure the desired indication of different degrees of temperature a thermometer of any suitable type is mounted upon the flat iron body so as to be subjected to the heat generated by the usual unit in the iron when the unit is energized. A form of thermometer including a tube 2 with a bulb 3 is mounted upon the iron with the bulb adjacent to the bottom of the iron and the tube of the bulb is extended upwardly and may be provided with the usual graduation marks 4 some of which may be indexed as at 5 to give the degrees of heat when the mercury or other medium in the

tube expands so that its upper level registers with the different marks.

In the present case the tube 2 is shown as mounted in an appropriate shell or casing 6 having at its lower end a tubular part 7 extending into a bore 8 therefor in the body of the iron and the upper end of the casing 6 may be fastened as by a screw 9 to a convenient portion as the handle H of the iron. The casing is provided on one side with a window 10 through which the graduated body of the thermometer may be seen. The thermometer casing is also provided at one side with a window or a series of windows 12 through which may be seen a set of electric light bulbs 13 that may be of contrasted colors or otherwise suitably characterized from each other so that when they are illuminated, as will be explained, the degree of temperature is effectually signaled while the iron is in use.

The shells 14 of the lamp stems are threaded into a grounded body or other part of the device such ground being connected as at 15 to one of the terminals 16 of the electric unit in the iron. The central contact or button 14' of each electric bulb 13 is connected to a respective terminal or contact piece 17 of which there is a series spaced at suitable points in and along the thermometer tube the inner ends of these contact pieces being exposed for engagement by the mercury as it rises in the tube and in order to complete the electric circuit between the mercury and the successive contacts, a lead wire 18 is tapped into the tube 2 and is connected to the other terminal as at 19 of the iron.

From the above it will be seen that when the iron is in use as it becomes heated the mercury in the thermometer tube rises, and passing the lower terminal end of the wire 18 will engage the first terminal 17 as of the lowermost bulb 13 and thus complete a circuit through the ground line. Preferably the first bulb energized is positioned in the thermometer tube to indicate a temperature of about 150° which is a desirable degree of heat for the ironing of lace, lawn, silks, etc. The next successive bulb in circuit is positioned so as to be energized at a temperature of the iron of about 250° which is sufficient for ironing gingham and the like and the uppermost bulb is positioned to be energized when the iron

is heated to about 350° which is effective for pressing over a damp cloth and for other purposes.

As the iron reaches the desired temperature according to the work in hand the plug P is pulled from the socket and further increment of temperature is prevented; the plug being replaced as soon as the temperature falls sufficiently to disconnect the desired signal circuit.

Various changes may be made without departing from the spirit of my invention as claimed.

What is claimed is:

1. A heat indicator for electric irons comprising a housing, a tube arranged in said housing and having lateral contact pieces, the lower portion of which tube extends downwardly into the iron to which the device is applied, said tube containing a current conducting liquid that is expansible under heat, a contact in the lower portion of the tube which contact is connected to the heating circuit of the iron, said housing having grounded lamp sockets, and a plurality of electric lamps arranged within the sockets at different elevations along the tube therein and one of the terminals of each lamp making contact with the said

pieces whereby each lamp circuit is closed as the heat responsive liquid rises in said tube.

2. A heat indicator for electric irons comprising a housing that is adapted to be electrically grounded and connected to an electric iron, said housing having a pair of separate chambers, a tube arranged in one of said chambers, the lower portion of which tube projects below the housing and is positioned in the iron to which the device is applied, said tube containing an electric conducting liquid that is expansible under heat, contact pieces in the tube and engageable by the liquid, a contact member extending into the lower portion of the tube which contact member is connected to the heating element of the iron with which the device is associated, and a plurality of electric lamps seated in the partition in the housing between the two chambers which lamps are spaced apart and located above the contact member in the lower portion of the tube, and each lamp having one of its contact members engaging one of said pieces.

In testimony whereof I have signed my name to this specification.

ADELE WEISS.