

July 16, 1940.

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2,208,432

ELECTRIC FLATIRON

Filed Dec. 10, 1935

2 Sheets-Sheet 1

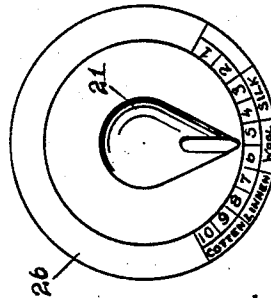
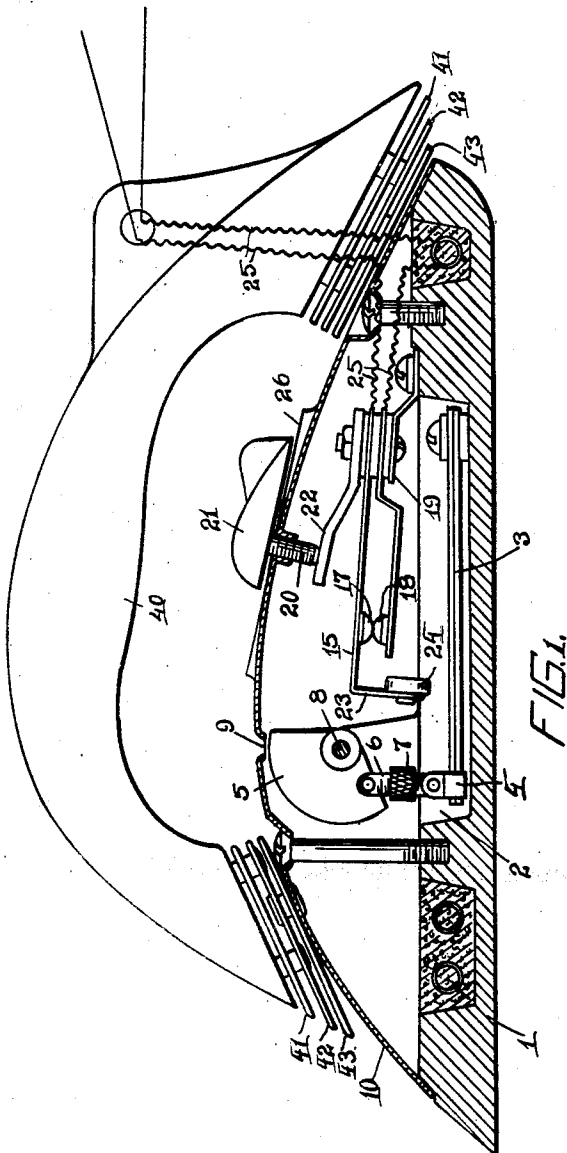


FIG. 2.

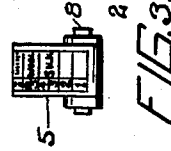


FIG. 3.

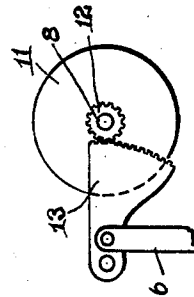


FIG. 4.

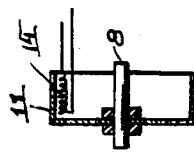


FIG. 5.

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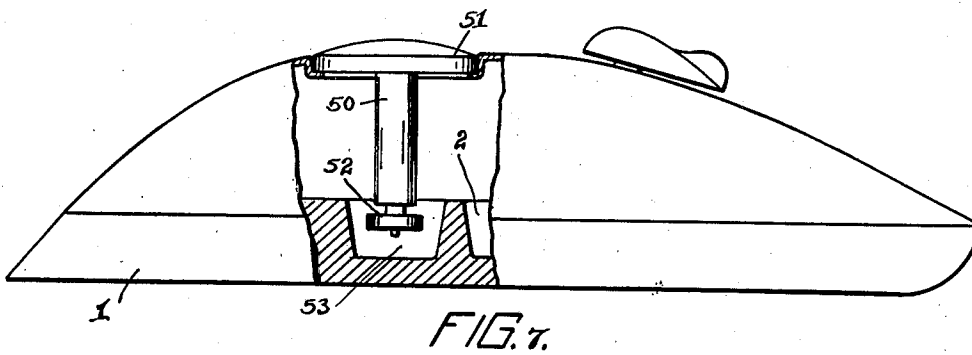
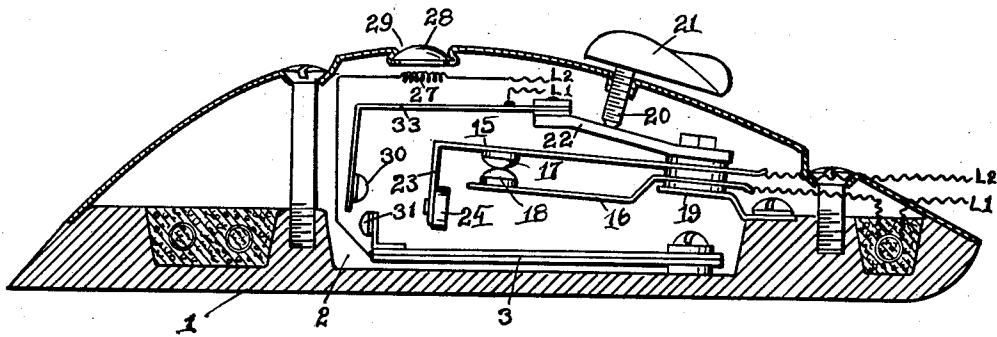
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ELECTRIC FLATIRON

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2 Sheets-Sheet 2



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2,208,432

ELECTRIC FLATIRON

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Application December 10, 1935, Serial No. 53,781

31 Claims. (Cl. 219—25)

This invention relates to flatirons and has for one of its objects to provide a flatiron with an indicating mechanism which automatically indicates the temperature of the sole plate of the iron.

Another object of this invention is to provide an electrically heated flatiron with a combined controlling and indicating mechanism with which the iron may be set for any predetermined temperature and cause the indicating mechanism to give a corresponding indication or operate a signal or do both when said temperature is reached.

A further object of this invention is to provide an electrically heated flatiron with a thermoresponsive member which is mounted on the sole plate of the iron to operate an indicator in conjunction with a switch in order to provide an always true indication of the temperature of the iron before and after the operation of the switch.

A further object of this invention is to mount the handle of the flatiron to the body thereof by means of a plurality of heat radiating baffles or fins in order to keep the heat of the iron from heating the handle.

Another object of this invention is to provide a round heel on the sole plate of the iron in combination with a novel form of combined handle and heel to provide a quick and easy movement of the iron from an active to an inactive or rest position.

All these and other objects and attendant advantages will become more readily apparent from the detailed description of the invention which follows, reference being had to the accompanying drawings in which

Figure 1 is a longitudinal sectional view of the iron embodying the invention.

Figure 2 is a detail top plan view of the manually operated indicator and its dial which is used for setting the automatic control mechanism of the iron.

Figure 3 is a detail top plan view of one form of the automatically operated indicator for continually indicating the true temperature of the sole plate of the iron.

Figure 4 is a detail side elevation of a modified form of the movement transmitting mechanism for the automatically operated temperature indicator.

Figure 5 is a detail sectional view of another modified form of the automatically operated temperature indicator.

Figure 6 is a longitudinal sectional view of the

flatiron embodying a modified form of the invention.

Figure 7 is a side elevation and partial section of another modified form of the flatiron.

In the several figures of the drawings like reference numerals indicate like parts.

The automatic heat indicator embodied in my present invention increases the practical use of a flatiron in that it indicates at all times to the user of the iron the exact temperature of the sole plate thereof. This eliminates even in the use of so-called automatic irons the uncertainty as to whether or not the temperature of the iron has reached the desired degree of temperature necessary for safely and efficiently ironing a particular kind of fabric. Thus for example, if the regulating mechanism of an automatic iron is set for a predetermined heat the iron will operate to maintain this temperature after it has been reached, but the user of the iron does not know when this temperature has been reached and the only safe way for the operator of the iron is to approximate a period long enough to give the heating unit time to heat the iron to the set temperature and then wait for that length of time after the control is set before using the iron. However in many cases even then the iron is used too early; that is before the proper temperature of the iron has been reached. In the case where the temperature of the iron must be lowered before another kind of fabric is ironed, it is even more difficult to tell just when to use the iron. For example, if the iron has been used for efficiently ironing cotton goods it has been kept at a high temperature and if it is desired to now iron silk goods, this temperature must be materially reduced to prevent the scorching of the silk fabric. The automatic iron is then set for the lower temperature and will operate to maintain the lower temperature after it is reached, but the operator of the iron has no way of knowing when it is reached and no way of finding out when it is safe to use the iron on silk fabric except by the use of the iron on the fabric. The result is that the fabric may be scorched if the temperature of the iron has not dropped sufficiently for safe use on silk.

In my present invention any guess work as to how hot the iron is at any time has been completely eliminated and the operator knows at all times when or when not to use the iron on a certain kind of fabric.

This is made possible by the use of a thermoresponsive element which is incorporated in the iron and operates an indicator or a signal or both

to indicate at all times the exact temperature of the sole plate of the iron. The indicator or signal operates in conjunction with a manually operated indicator for the control of an automatic switch so that a comparison of the indication of the thermostatically operated heat indicator with the setting of the manually operated indicator of the automatic switch will show whether or not the iron is ready for use on the particular kind of fabric which is to be ironed.

In the embodiment of the invention, as illustrated in Figure 1 of the drawings, the sole plate 1 is provided with a suitable pocket 2 and in this pocket is mounted the thermo-responsive element 3 which preferably comprises a bi-metallic member. This member is fastened to the sole plate with one end thereof so as to normally extend over the bottom of the pocket 2 suitably in contact or spaced therefrom. At the free end the thermo-responsive member carries the connecting member 4 which is connected to the swinging indicator 5 by means of the link 6.

The link 6 is made up in sections in the form of a turnbuckle so that on the rotation of their connecting sleeve 7, the sections may be moved out or drawn in to lengthen or shorten the link for the initial setting of the indicator 5.

The indicator 5 is mounted to swing on its pivot 8 and the concentric periphery of the indicator is provided with numerals and words indicating relative temperatures for various kinds of fabrics. These numerals and words may be arranged as shown in Figure 3 and are visible, one at a time, thru the sight opening 9 provided in the hood 10 of the flatiron.

The temperature of the sole plate which effects the movement of the thermo-responsive element will thus indicate thru the sight opening 9 the particular relative temperature and the kind of fabric for which this temperature is most efficient for ironing purposes. Whether the flatiron is heated from within or without, this indication serves as an accurate guide for the user in applying the iron to the fabric with the correct temperature of the sole plate.

If a greater range of movement of the indicator is desired, the indicator may be made in the form of a drum 11 and the drum rotated by means of the pinion 12 and sector gear 13 with the link connected to the sector gear for the movement thereof by the thermo-responsive element 3. The drum or indicator may be made of substantially transparent material and a small electric illuminating coil 14 or an electric light is located under the surface of it in order to more clearly show up the indications thru the sight opening 9 in the hood of the iron.

For the automatic operation of the flatiron to cause it to assume and retain a predetermined temperature for ironing specific kinds of fabric, an electric switch for the control of the heating coil of the flatiron is operated by the thermo-responsive member in conjunction with the temperature indicator.

In the embodiment illustrated in Figure 1 of the drawings this switch comprises a pair of spring fingers 15 and 16 which carry the contacts 17 and 18 respectively and are held spacedly clamped together so that these contacts are normally held yieldingly in contact with each other. The spring fingers are electrically insulated from each other and from their spring support 19. The latter is suitably mounted on the sole plate so as to permit the spring support 19 with its spring fingers to jointly move toward

and away from the thermo-responsive member 3. Such a movement of the spring support with its spring fingers is effected by the adjusting screw 20 which is threaded in the hood 10 and is rotated by means of the pointer handle 21 provided on the adjusting screw.

An arm 22, which is also mounted on the spring support 19 and is electrically insulated from the spring fingers 15 and 16, is held yieldingly in contact with the end of the adjusting screw so that in threading the screw in and out on the hood the spring fingers are moved toward and away from the thermo-responsive member.

Spring finger 15 is provided with a substantially right angle extension 23 and on this extension is mounted a button 24 of insulating material so as to overhang the end of the extension. Jointly moving the spring fingers 15 and 16 by means of the regulating screw 20 thus adjusts the position of the button 24 above the thermo-responsive member 3. In deflecting upwardly on the heating thereof, the thermo-responsive member, after traversing the space between it and the insulating button 24, begins to raise the button and with it the spring finger 15 and in so doing separates the contact 17 from the contact 18 and opens the electric circuit 25 of which the spring fingers form a part as indicated diagrammatically in Figure 1.

The temperature required for the deflection of the thermo-responsive member thus operates to separate the contacts 17 and 18 and opens the switch. By decreasing the space between the thermo-responsive member 3 and the button 24, a comparatively lower temperature is sufficient to deflect the thermo-responsive member to the point where it opens the switch, and by increasing the space between these two members a higher temperature is required before the switch is opened thereby. By regulating the position of the button 24 by means of the pointer handle 21, as above described, the switch may be set to open at any desired temperature and then close again when the temperature drops below this temperature as the thermo-responsive member recedes on the decrease of the temperature and allows the contacts 17 and 18 to move together again and close the switch to prevent any further drop in the temperature of the iron. In this way the sole plate of the iron, which is heated by a heating unit either embodied therein or mounted thereon, may be maintained at any desired temperature according to the setting of the regulating or indicating lever handle 21 while the correct temperature of the sole plate, as given by the deflection of the thermo-responsive member, is at the same time indicated by the indicator 5 thru the sight opening. This indication lags behind the indication of the indicating lever handle 21 as it depends on its operation by the thermo-responsive member but not until the indications of both are identical is the sole plate at the temperature for which the iron is adjusted. The indicating lever handle 21 is surrounded by the fixed dial 26 located on top of the hood 10. This dial is calibrated with heat values which are supplemented with the names of the fabrics which correspond to those provided on the swinging indicator 5 so that the operator can quickly compare the fixed indication of the lever handle 21 with the temperature indicator 5 to make sure that the sole plate of the iron is actually at the desired temperature.

In the modification of the mechanism illustrated in Figure 6 of the drawings, the indicating

member 5 is replaced by a light signal which consists of an electric light coil or incandescent light 27 located below the lens 28 in the sight opening 29 of the hood. This lighting coil or incandescent light is connected in an electric circuit which is controlled by a switch provided by the contacts 30 and 31, the electrically insulated extension 33 of the arm 22 which carries the contact 30 and the thermoresponsive member which carries the contact 31 and in this case is electrically insulated from the sole plate on which it is mounted. The two contacts 30 and 31 are so arranged that when the position of the button 24 is adjusted by the indicating lever handle 21 so that it will be raised at a predetermined temperature by the thermo-responsive member 3, the position of the contact 30 is similarly adjusted with the arm 22 so that the contact 31 of the thermo-responsive member will make contact with it and close the signal light circuit substantially at the same time or a little ahead of the time that it operates the switch which controls the heating of the iron. The lighting of the signal light thus indicates that the sole plate has reached the temperature for which the indicator handle 21 was set for the operation of the iron. L1 and L2 indicate the electric circuit in which the heating coil and automatic control switch are included. A connection of this circuit with the auxiliary signal light circuit in the manner indicated by the same reference characters L1 and L2 will cause the signal light to operate from the same circuit which furnishes current to the heating unit.

In Figure 1 I have illustrated a novel mounting of the handle 40. In this mounting three baffle or heat radiating fins 41, 42 and 43 are interposed between the hood and each end of the handle 44 so as to cause the heat from the iron to be radiated by these baffles or fins and eliminate practically all conduction of heat from the iron to the handle in order to keep the handle cool during the operation of the iron. The handle 44 may be made of wood, cast from originally plastic material, phenol products, etc.; in fact may be made of any substantially non-heat conducting material that can be fashioned into the desired form for the handle.

In Figure 7 I have illustrated a modified form of the flatiron in which the thermo-responsive indicator forms a separate unit from the automatically operated switch. This indicator preferably comprises a suitable casing 50 with an indicating housing 51 at the top and a coil shaped thermo-responsive operating member 52 at the bottom. The casing 50 is mounted on the hood so as to hold the thermo-responsive member 52 suspended in the pocket 53 of the sole plate causing the thermo-responsive member to quickly respond to the change in temperature of the sole plate.

Of course, the construction shown and described may be changed in various ways, and variations may be required under certain conditions, therefore, while some of the constructional details are deemed preferable and I have shown and described these specifically, it is to be understood that I do not limit myself to such precise construction, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

I claim:

1. In an electrically heated flatiron, a sole plate, temperature indicating means and electric

current control means located above said sole plate and a common thermo-responsive means carried by said sole plate to continuously operate said indicating means and intermittently operate said electric current control means.

2. In an electrically heated flatiron, a sole plate, a switch located above said sole plate, a pair of separable contacts in said switch, indicating means, and a common thermo-responsive member mounted on said sole plate so as to continuously operate said indicating means and intermittently separate said contacts on the movement thereof by the change in temperatures of said sole plate.

3. In an electrically heated flatiron, a sole plate, a yielding switch support on said sole plate, a switch carried by said support, a thermo-responsive member mounted on said sole plate for the operation of said switch, means for moving said support to locate said switch at varying distances from said thermo-responsive member so as to cause said thermo-responsive member to operate said switch for varying heating periods or varying temperatures, and indicating means connected to said thermo-responsive member to constantly indicate the position of said thermo-responsive member in its movement for the operation of said switch.

4. An electrically heated flatiron having a sole plate, a heating unit carried by said sole plate and a hood over said sole plate, a switch for controlling the electric current to said heating unit, a temperature indicator, and a thermo-responsive element on said sole plate, means connecting said temperature indicator with said thermo-responsive member to cause a continuous operation thereby, and means operated by said thermo-responsive member for an intermittent operation of said switch.

5. An electrically heated flatiron having a sole plate, a heating unit and a hood over the sole plate, a thermo-responsive member on said sole plate, a movable temperature indicating dial and a fixed temperature indicating dial, a variably operating control switch, manually operable indicating means on said fixed dial for varying the operation of said switch according to the temperature indicated thereby on said fixed dial, means operated by said thermo-responsive member to continuously operate said movable indicating dial, and means operated by said thermo-responsive member to operate said switch to cause a change in the temperature to that indicated by the manually operable indicating means on said fixed dial and cause said movable temperature indicating dial to give a substantially duplicate indication.

6. An electrically heated flatiron having a sole plate, a heating unit and a hood over said sole plate and heating unit, a thermo-responsive member on said sole plate, a yielding switch support, a switch on said support, means for moving said support to provide for varying operations of said switch by said thermo-responsive member, a temperature indicating member operably connected to said thermo-responsive member to constantly indicate the temperature of the sole plate before and substantially at the operation of the switch by the thermo-responsive member.

7. An electrically heated flatiron having a sole plate, a heating unit and a hood over the sole plate and heating unit, a switch comprising a pair of yieldingly contacting spring fingers, a movable support for said spring fingers, means

for varying the position of said switch support, a thermo-responsive member adapted to separate the contact between said spring fingers at varying positions of said switch support, and indicating means operably connected to said thermo-responsive member to indicate the movement thereof and its position substantially at the point of operation of said switch thereby.

8. An electrically heated flatiron having a sole plate, a heating unit and a hood over the sole plate, a thermo-responsive member mounted on said sole plate, a movable indicating dial operatively connected to said thermo-responsive member, a sight opening in said hood over said dial, a movable switch mounted for operation by said thermo-responsive member, a movable indicator for positioning said switch for its operation by said thermo-responsive member, and a fixed dial surrounding said indicating member for a predetermined location of the switch by said movable indicator.

9. In an electrically heated flatiron having a heating unit, a sole plate and a hood, the combination of manually operated temperature setting indicating means and automatically operated temperature indicating means, an electric switch, adjusting means operated by said manually operated means for a predetermined operation of said switch at a predetermined temperature of the sole plate indicated by said manually operated indicating means, a thermo-responsive member for operating said automatically operated temperature indicating means and for operating said switch with the indications of both temperature indicating means in substantially the same indicating position.

10. In combination with an electric heater, manually operated temperature setting indicating means and automatically operated temperature indicating means mounted for comparison with each other, a switch associated with said manually operated indicating means and adjustable cooperatively therewith in accordance with the indication of said manually operated indicating means, and a common thermo-responsive means associated with said electric heater for the operation of said automatically operated indicating means and said switch so as to provide by a joint indication of both of said indicating means a true indication of the temperature of the electric heater as effected by said switch on the operation by said manually operated indicating means.

11. In combination with an electrically heated flatiron having a sole plate, manually operated temperature setting indicating means and automatically operated indicating means mounted on said flatiron for comparison with each other, a thermo-responsive member associated with said sole plate and said automatically operated indicating means, an electric heating element, a switch connected with said heating element and associated with said manually operated indicating means and operable by said thermo-responsive member in accordance with the indication of said manually operated indicating means to cause a change in temperature of said sole plate and have said automatically operated indicating means reach substantially the same indication as said manually operated indicating means.

12. In an electrically heated flatiron, a sole plate, a switch comprising a pair of switch arms, a yielding switch support on said sole plate supporting said switch arms, a thermo-responsive member mounted on said sole plate for the operation of said switch, and means for moving

said support to locate said switch at varying distances from said thermo-responsive member so as to cause said thermo-responsive member to operate said switch for varying heating periods or varying temperatures.

13. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, temperature indicator means comprising a measuring scale plate, and common means responsive to the temperature of said sole plate for causing said temperature indicator means to indicate the temperature of said sole plate and for actuating said control means, said scale plates being positioned in the same field of view of the operator of said iron.

14. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, temperature indicator means comprising a measuring scale plate, and common means responsive to the temperature of said sole plate for causing said temperature indicator means to indicate the temperature of said sole plate and for actuating said control means, said scale plates being provided with corresponding graduations.

15. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, temperature indicator means comprising a measuring scale plate, and common means responsive to the temperature of said sole plate for causing said temperature indicator means to indicate the temperature of said sole plate and for actuating said control means, said scale plates being provided with corresponding range graduations designated by names of fabrics for which the sole plate temperatures of the ranges covered by said graduations are respectively suitable.

16. In an electrically heated flatiron, a sole plate, an electrical heating element, a switch connected for controlling said heating element, adjustable setting indicator means comprising a relatively movable setting scale plate and a setting register member for adjusting the actuation characteristic of said switch, temperature indicator means comprising a relatively movable measuring scale plate and a measuring register member, a heat responsive element in heat exchange relation with said sole plate, a first control means associated with said switch and with said heat responsive element for the actuation of said switch by said heat responsive element, and a second separate control means associated with said temperature indicator means and with said heat responsive element for the actuation of said temperature indicator means by said heat responsive element.

17. In an electrically heated flatiron, a sole plate, an electrical heating element, a switch connected for controlling said heating element, adjustable setting indicator means comprising a relatively movable setting scale plate and a set-

ting register member for adjusting the actuation characteristic of said switch, temperature indicator means comprising a relatively movable measuring scale plate and a measuring register member, a heat responsive element in heat exchange relation with said sole plate, a first control means associated with said switch and with said heat responsive element for the actuation of said switch by said heat responsive element, and a second separate control means associated with said temperature indicator means and with said heat responsive element for the actuation of said temperature indicator means by said heat responsive element, said scale plates being provided with corresponding graduations.

18. In an electrically heated flatiron, a sole plate, an electrical heating element, a switch connected for controlling said heating element, adjustable setting indicator means comprising a relatively movable setting scale plate and a setting register member for adjusting the actuation characteristic of said switch, temperature indicator means comprising a relatively movable measuring scale plate and a measuring register member, a heat responsive element in heat exchange relation with said sole plate, a first control means associated with said switch and with said heat responsive element for the actuation of said switch by said heat responsive element, and a second separate control means associated with said temperature indicator means and with said heat responsive element for the actuation of said temperature indicator means by said heat responsive element, said scale plates being provided with corresponding range graduations designated by means of fabrics for which the sole plate temperatures of the ranges covered by said graduations are respectively suitable.

19. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, separate visual signaling means, and common means responsive to the temperature of said sole plate, for substantially simultaneously actuating said control means and said visual signaling means.

20. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, temperature indicator means comprising a relatively movable measuring scale plate and a measuring register member, and common means responsive to the temperature of said sole plate for substantially simultaneously actuating said control means and said temperature indicator means.

21. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, electrical signal means comprising an incandescent electric light and a signal switch connected for supplying electrical energy to said light, and common means responsive to the temperature of said sole plate for substantially simultaneously actuating said control means and said signal switch.

22. In an electrically heated flatiron, a sole plate, an electrical heating element, a heater switch comprising a pair of separable arms connected for controlling the application of electrical energy to said electrical heating element, a yielding support for mounting said heater switch with reference to said sole plate, adjustable setting indicator means for adjusting the position of said heater switch, an incandescent electric signal light visibly mounted on said iron, a signal switch comprising two separable contact members and being connected for supplying electrical energy to said light, one of said contact members being mounted on said yielding support and displaceable therewith, and common means responsive to the temperature of said sole plate for substantially simultaneously actuating said heater switch and said signal switch.

23. The subject matter of claim 16, said second control means being adjustable for adjusting the calibration of said temperature indicator means with reference to its actuation by said second control means and said heat responsive element.

24. In an electrically heated flatiron, a sole plate, a switch comprising a pair of switch arms, a yielding switch support on said sole plate supporting said switch arms, a thermo-responsive member mounted on said sole plate for the operation of said switch, setting means comprising a setting scale plate for moving said support to locate said switch at varying distances from said thermo-responsive member for adjusting the actuation characteristic of said switch, and temperature indicating means comprising a scale plate actuatable by said thermo-responsive member.

25. In an electrically heated flatiron, a sole plate, an electrical heating element, a hood over said sole plate and said heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means including a setting scale plate on top of said hood for adjusting the actuation characteristic of said control means, temperature indicator means comprising a movable dial member mounted within said hood, said hood being provided with an aperture on its upper surface through which the movements of said dial member may be observed, said aperture and said setting scale plate being positioned in the same field of view of the operator of said iron, and common means responsive to the temperature of said sole plate for causing said temperature indicator means to indicate the temperature of said sole plate and for actuating said control means.

26. In an electrically heated flatiron, a sole plate, an electrical heating element, a hood over said sole plate and said heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means including a setting scale plate on top of said hood for adjusting the actuation characteristic of said control means, temperature indicator means comprising a movable dial member mounted within said hood, said hood being provided with an aperture on its upper surface through which the movements of said dial member may be observed, said aperture and said setting scale plate being positioned in the same field of view of the operator of said iron, a calibratably adjustable connecting member actuatably connected to said movable dial member, and common means re-

sponsive to the temperature of said sole plate for actuating said connecting member and said control means.

27. In an electrically heated flatiron, a sole plate, an electrical heating element, a hood over said sole plate and said heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means including a setting scale plate on said hood for adjusting the actuation characteristic of said control means, temperature indicator means comprising a movable dial member mounted within said hood, said hood being provided with an aperture on its upper surface through which the movements of said dial member may be observed, said aperture and said setting scale plate being positioned in the same field of view of the operator of said iron, and common means responsive to the temperature of said sole plate for actuating said temperature indicator means and said control means.

28. In an electrically heated flatiron, a sole plate, an electrical heating element, a hood over said sole plate and said heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means including a setting scale plate on said hood for adjusting the actuation characteristic of said control means, temperature indicator means comprising a movable dial member mounted within said hood, said hood being provided with an aperture on its upper surface through which the movements of said dial member may be observed, said aperture and said setting scale plate being positioned in the same field of view of the operator of said iron, a calibratably adjustable connecting member actuatably connected to said movable dial member, and common means responsive to the temperature of said sole plate for actuating said connecting member and said control means.

29. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, calibratably adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, calibratably adjustable temperature indicator means comprising a relatively movable measur-

ing scale plate and a measuring register member, said scale plates having corresponding graduations, and common means responsive to the temperature of said sole plate for actuating said control means and said temperature indicator means, said adjustable setting indicator means and said adjustable temperature indicator means being so adjusted that after a condition of equilibrium is established the reading on the scale plate of said temperature indicator means corresponds to the reading on said setting scale plate.

30. In an electrically heated flatiron, a sole plate, an electrical heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means comprising a setting scale plate for adjusting the actuation characteristic of said control means, temperature indicator means comprising a relatively movable measuring scale plate and a measuring register member, said scale plates having corresponding graduations, calibratably adjustable connecting means operatively connected to said temperature indicator means, and common means responsive to the temperature of said sole plate for actuating said control means and being connected to said connecting means for actuating the same, said adjustable connecting means being adjusted so that after a condition of equilibrium is established the reading on the scale plate of said temperature indicator means corresponds to the reading on said setting scale plate.

31. In an electrically heated flatiron, a sole plate, an electrical heating element, a hood over said sole plate and said heating element, control means for controlling the application of electrical energy to said electrical heating element, adjustable setting indicator means including a setting scale plate on said hood for adjusting the actuation characteristic of said control means, temperature indicator means cooperating with the surface of said hood for purposes of observation to the operator in the same field of view as said adjustable indicator means, and common means responsive to the temperature of said sole plate for actuating said control means and said temperature indicator means arranged in heat exchange relation with said sole plate and positioned relatively closely adjacent the bottom surface of the latter.

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