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TEMPERATURE CONTROL DIAL FOR ELECTRIC IRONS

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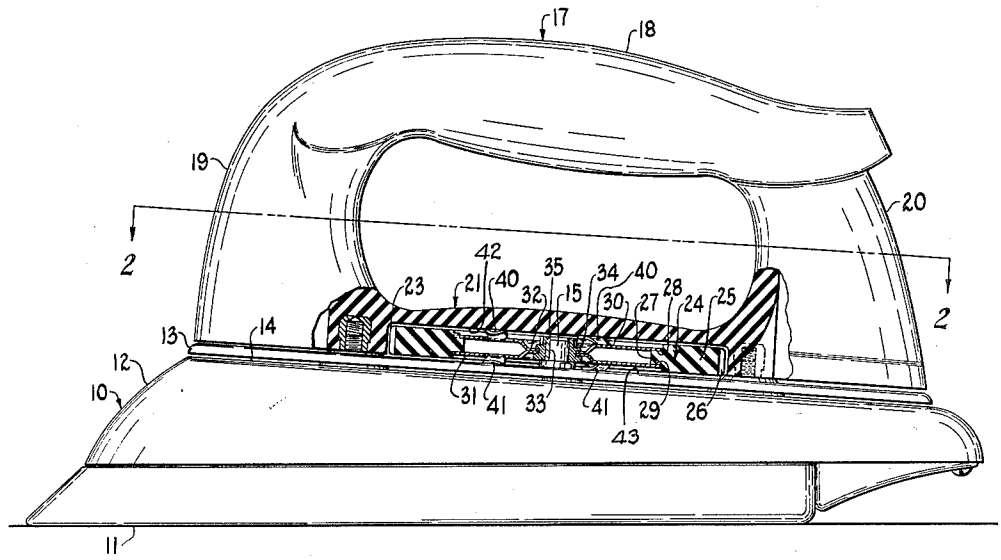


Fig. 1

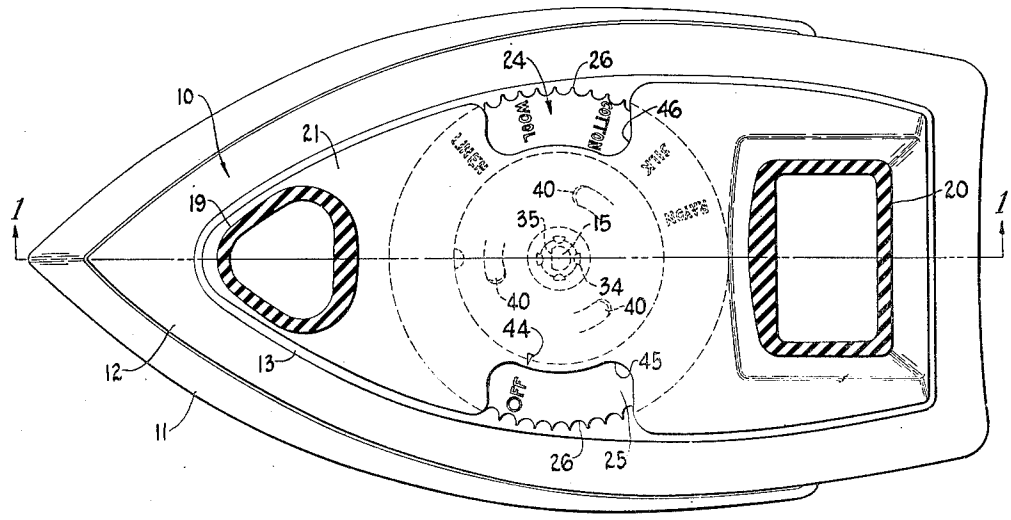


Fig. 2

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TEMPERATURE CONTROL DIAL FOR ELECTRIC IRONS

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3 Claims. (Cl. 38—88)

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The present invention relates in general to electric irons and more particularly to an arrangement of a temperature control dial on an electric iron.

An object of the invention is to provide a new and improved electric iron. Another object is to provide an electric iron having a temperature control dial disposed between the handle and the body of the iron. A further object is to provide a temperature control dial supported by the handle and the body of the iron. Another object is to provide stabilizing means for the temperature control dial. Other objects and advantages of the invention will be apparent from the following specification and drawings wherein:

Figure 1 is a section along the line 1—1 of Figure 2; and

Figure 2 is a section along the line 2—2 of Figure 1.

The embodiment of the invention herein disclosed comprises a body 10 including a sole plate 11, a cover shell 12 and a cooling fin 13, the latter being spaced from the top wall 14 of the cover shell 12. Within the cover shell 12 is an unshown heating element and a thermostat device having a rotatable shaft 15 projecting upwardly through the cover shell 12 and cooling fin 13 in a manner well known in the art.

A handle 17 formed of insulation material includes a hand grip 18 spaced from the cooling fin 13 by supporting legs 19 and 20 which are suitably attached to the body 10. Formed integrally with the handle supporting legs 19 and 20 is a handle base or heat baffle 21 which extends completely between the handle legs 19 and 20 and together with the latter overlies substantially the entire area of the cooling fin 13. The handle base 21 is recessed from the cooling fin 13 to form an opening 23 for the reception of a temperature control dial 24 for operating the shaft 15 of the thermostat.

The control dial 24 includes a peripheral ring 25 provided along its vertical outer wall with spaced ribs 26 for receiving the operator's fingers to rotate the dial 24. The inner periphery of the ring 25 has a projecting annular rib 27 which forms annular shoulders 28 and 29 with the ring 25. Mounted on one side of the rib 27 in the annular shoulder 28 is a metal disk 30, and another metal disk 31 rests upon the rib 27 in the annular shoulder 29. The disks 30 and 31 are spaced apart by the annular rib 27 and radially inwardly therefrom are joined together at 32 to form a double walled portion which is secured to a sleeve 33 by staking the latter as indicated at 34. The dial sleeve 33 is non-rotatably attached to the shaft 15 of the thermostat by providing the sleeve 33 and the shaft 15 with complementary flat surfaces 35 which permit linear displacement of the control dial 24 relative to the thermostat shaft 15 when the latter is rotated by the dial 24 to different ironing temperatures. The handle base 21 above the dial sleeve 33 retains the latter on thermostat shaft 15 and limits the linear displacement of the sleeve 33 with respect to the shaft 15.

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A stabilizing device to prevent vibration of the dial 24 during its rotation includes a plurality of spring fingers 40 stamped out of the disk 30, and spring fingers 41 are stamped from the disk 31. The fingers 40 press against the inner surface 42 of the handle base, while the fingers 41 press against the top surface 43 of the cooling fin 13, to thereby stabilize the outer ring 25 of the dial when the latter is rotated to different positions and limit linear displacement of the dial with respect to the handle and iron body.

Inscribed on the top surface of the ring 25 are the names of the materials to be ironed, and the proper ironing temperature for these materials is obtained by registering with an arrow 44 on the handle base 21. In order to easily observe the names of the materials on the dial 24, the handle base 21 is cut away to provide diametrically opposed openings 45 and 46 above the dial. The openings 45 and 46 also expose the ribs 26 on the dial so that the operator can optionally rotate the dial by engaging the ribs 26 exposed in either of the openings 45 and 46.

In assembling the dial, the sleeve 33 is mounted on the thermostat shaft 15 with the complementary flat surfaces 35 abutting each other, and thereafter the handle 17 is suitably attached to the iron body 10 and as a result the handle base 21 overlies the sleeve 33 and dial 24 and prevents axial displacement of the dial from the thermostat shaft 15. When adjusting the dial for the material to be ironed the operator has the option of placing his fingers in either of the openings 45 and 46 to rotate the dial. The spring fingers 40 and 41 which are respectively urged against the handle base 21 and cooling fin 13 stabilize the dial, and when the operator exerts pressure on the dial, the latter is not tilted but rotates in one plane.

I claim:

1. In an iron, an iron body, cover means spaced from said body to form a chamber therebetween, a temperature control dial movably disposed in said chamber for adjusting a thermostat, said

temperature control dial including a peripheral ring having indicia thereon for the materials to be ironed, means connecting said peripheral ring to said thermostat, and stabilizing means projecting from said connecting means into engagement with said iron body and said cover means to stabilize said peripheral ring when the operator exerts a force thereon to adjust said thermostat.

2. In an iron, an iron body, cover means spaced from said iron body to form a chamber therebetween, a thermostat in said body and projecting into said chamber, a temperature control dial disposed in said chamber, means slidably connecting said control dial to said thermostat, and means projecting from the opposite sides of said dial and engaging said iron body and cover means to prevent linear movement of said dial with respect to said cover means and iron body during reciprocal movement of said thermostat when the latter is adjusted by said control dial.

3. In an iron, an iron body, cover means spaced from said body to form a chamber therebetween, a thermostat in said body and having a shaft projecting into said chamber, a temperature control dial in said chamber and including an outer peripheral ring member having indicia for materials to be ironed, a sleeve slidably mounted on said shaft, spaced members attached to said peripheral ring and to said sleeve, said spaced members formed with outwardly projecting members engaging said iron body and cover means to prevent linear displacement of said dial during reciprocal movement of said shaft when said dial is adjusted to different temperatures.

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