

Sept. 4, 1928.

1,683,252

T. J. MADIGAN

THERMOELECTRIC CONTROL DEVICE

Filed Oct. 16, 1926

Fig. 1.

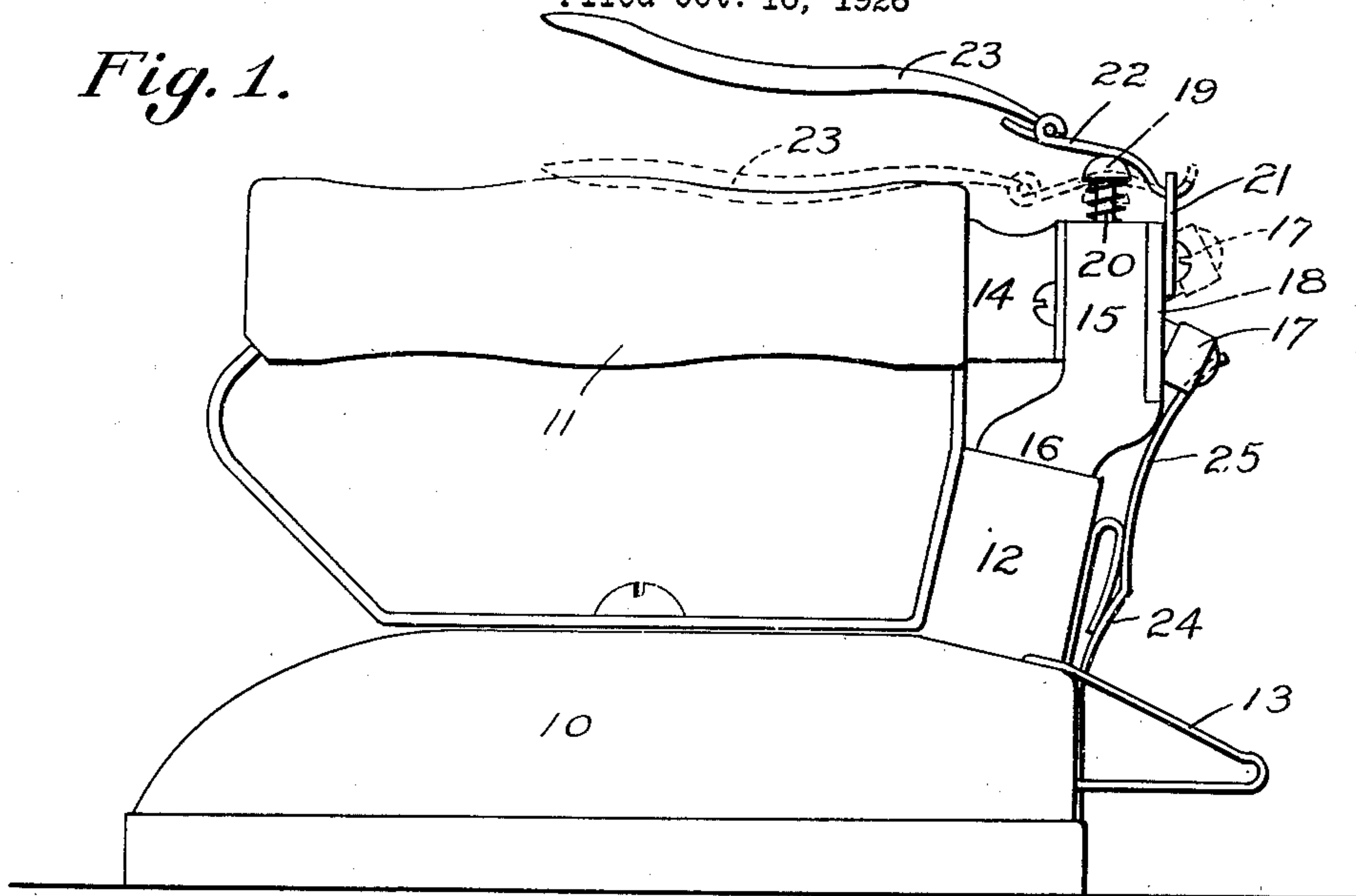
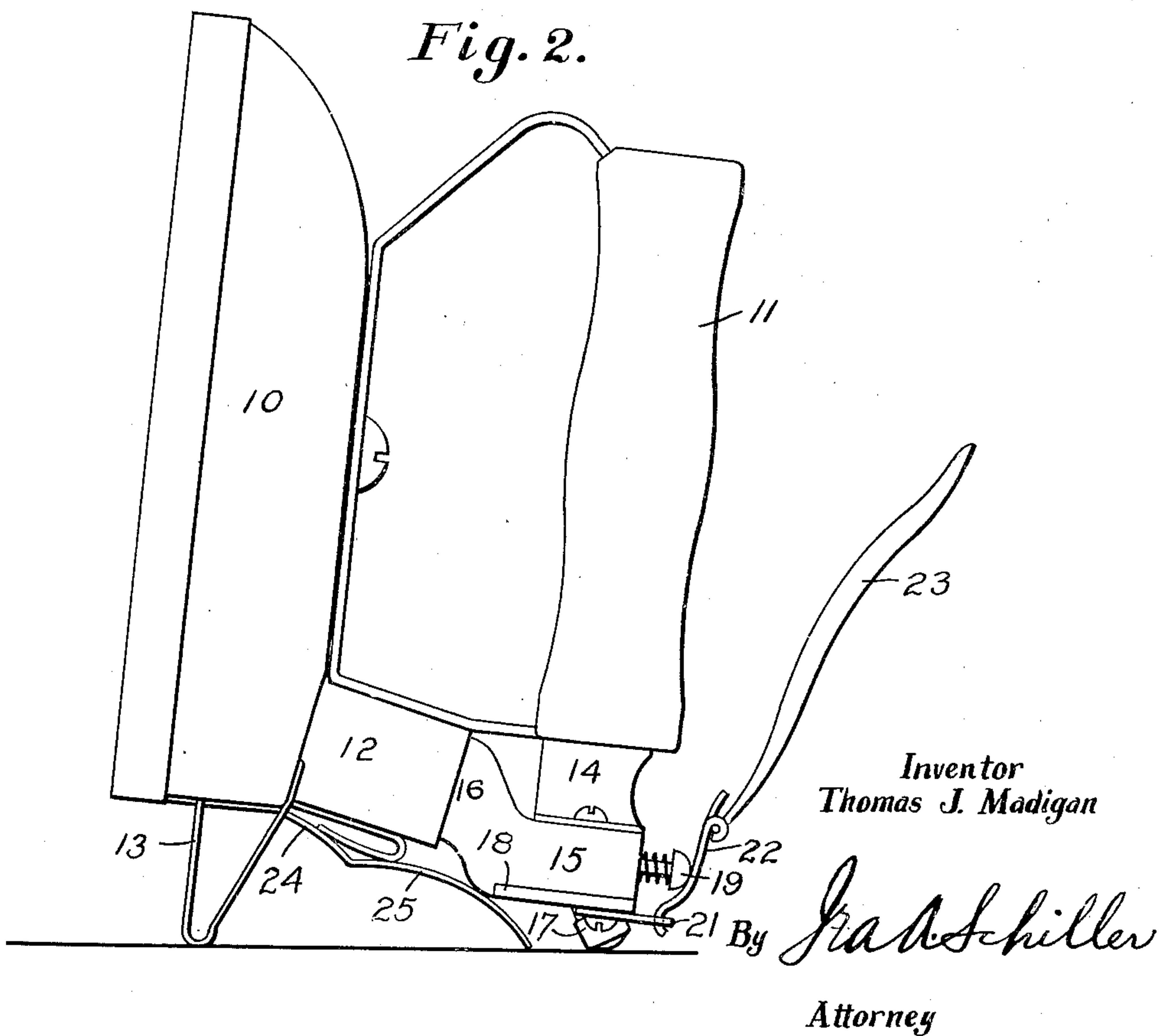


Fig. 2.



UNITED STATES PATENT OFFICE.

THOMAS J. MADIGAN, OF BROOKLYN, NEW YORK.

THERMOELECTRIC CONTROL DEVICE.

Application filed October 16, 1926. Serial No. 141,964.

This invention relates to thermo electric control devices and more particularly to such control devices as are particularly adapted for use on electric sadirons.

5 The primary object of the invention is to control the supply of electric current to the heating element of a common household electric sadiron.

Another object of the invention is to automatically discontinue the supply of current to the iron when its temperature reaches a predetermined point, should the iron be left unattended.

A feature of the invention is its adaptability to irons now in common use which enables the user to obtain the benefits of such automatic control without the necessity of investing in an entirely new appliance.

With the above and other objects in view which will become more apparent as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts which will be fully set forth in the following specification, claimed, and illustrated in the accompanying drawing, in which,

Figure 1, is a side elevational view of an electric sadiron equipped with a current control device in accordance with this invention, the same being shown in full lines in "off" position, and in dotted lines in "on" position.

Figure 2, is a similar view of the iron showing the same in position to heat when left unattended.

Referring to the drawings, in detail, an iron 10 is provided with the customary handle 11, sleeve 12, and guard 13.

Secured to the rear end of the handle 11 is a bracket 14 supporting a switch housing 15 which is formed integrally with the body of an attachment plug 16. This plug 16 carries contact sockets for enclosing the customary contact pins carried by the iron 10 and is received in the sleeve 12 as shown.

Pivotaly mounted within the housing 15 is a switch lever 17 which is yieldably held in "off" position as shown in full lines in Figure 1. This lever projects through a slot in the cover plate 18 of the housing and its movement into "on" position, that is, that shown by the dotted lines in Figure 1, is effected by depressing the plunger 19 against the compression spring 20.

In order to facilitate movement of the plunger 19, a yoke 21 is attached to the housing 15 and provides a fulcrum for the actu-

ating lever 22 to which the handle grip 23 is pivoted.

Secured at the rear of the iron is a strip 24 of thermostatic metal which is bent to form a curved tongue 25, the free end of which is disposed near the free end of the lever 17 as shown.

In operation, the iron is used in the usual manner and connected to any convenient outlet by the conventional flexible cable (not shown). When it is desired to heat the iron, the handle grip 23 is pressed into the dotted line position shown in Figure 1. Such movement throws the switch lever 17 to "on" position against the compression of spring 20. Should the iron become too hot during the ironing process, the grip may be thrown back out of the way and the ironing proceeded with, without using any current. When the user desires to heat the iron and attend to other matters during the heating process, the handle grip is depressed and the iron tilted back on its guard as shown in Figure 2. It will thus be seen that the handle portion of the iron will lightly rest upon the lever 17 so as to hold it in "on" position. When the heat reaches a predetermined point, the thermostatic metal strip will be expanded to cause its free end to engage the surface upon which the iron rests, thereby lifting the weight off of the lever 17 so that it will spring back into its normal "off" position. In this manner danger of injury to the heating element of the iron, as well as fire hazard, is eliminated.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

I claim—

1. The combination with an electric sadiron, of an attachment plug adapted to fit the terminals of the iron, a current control switch on said plug, a handle grip to throw said switch into "on" position, said switch being adapted to be retained in the "on" position by engagement with the surface upon which the iron rests when the iron is tilted back, and thermostatically controlled means to disengage said switch from the surface when the temperature of the iron reaches a predetermined point.

2. The combination with an electric sad-

iron, of an attachment plug adapted to fit the terminals, a switch body on said plug, a switch in said switch body, means to normally hold the switch in "off" position, a handle grip for moving the switch to "on" position, a lever on the switch adapted to engage the surface upon which the iron rests when the iron is tilted back, and thermostatically controlled means to disengage the lever from the surface when the temperature of the iron reaches a predetermined point.

3. The combination with an electric sad-iron, of an attachment plug adapted to fit the terminals, a switch body on said plug, a switch in said switch body, means to normally hold the switch in "off" position, a handle grip for moving the switch to "on" position, a lever on the switch adapted to engage the surface upon which the iron rests when the iron is tilted back, and a strip of thermostatically sensitive metal carried by the iron and having its free end disposed

in such position that when the temperature of the iron reaches a predetermined point, said strip will expand and lift the weight of the iron from the lever to permit the same to move to "off" position.

4. In an electric control device, an attachment plug, a switch body integral therewith, a switch lever projecting through said body, resilient means to normally urge said lever towards "off" position, manually actuated means to throw said lever into "on" position, said switch being adapted to be retained in "on" position by engagement of said lever with the surface upon which it rests, and thermostatically controlled means to disengage said lever from the surface when the temperature of the device reaches a predetermined point.

Signed at New York, county of New York, State of New York, this 13th day of October, 1926.

THOMAS J. MADIGAN.