Oct. 20, 1925. 1,558,312

P. SZENT

ELECTRIC FLATIRON

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Fig. 4

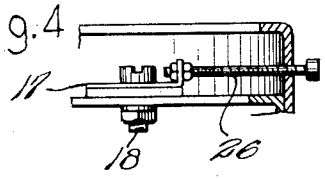


Fig. 1

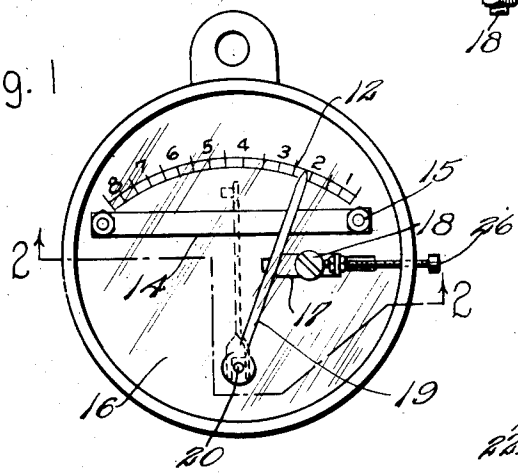


Fig. 3

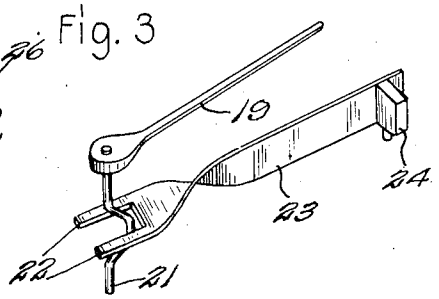


Fig. 2

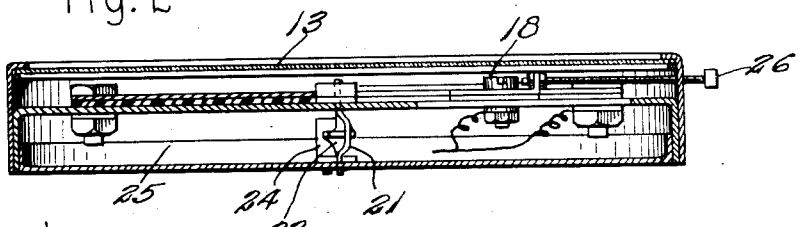
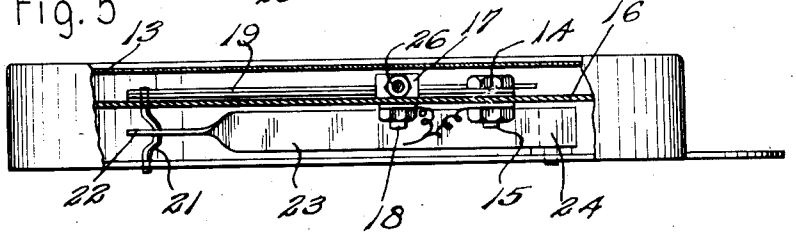


Fig. 5



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Fig. 6

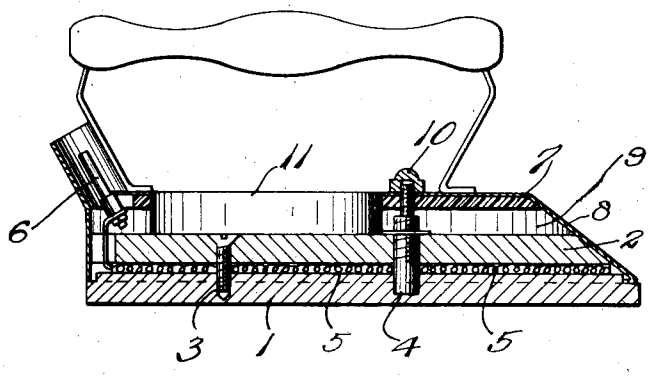
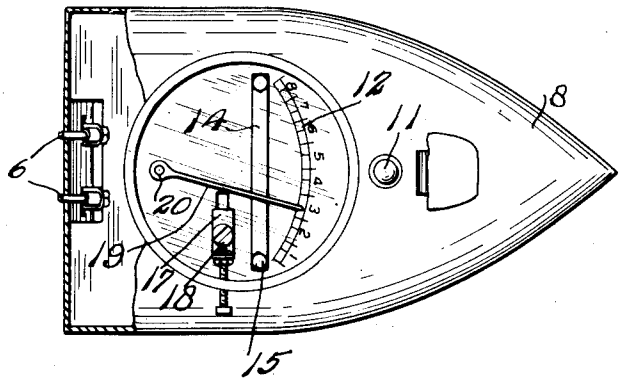


Fig. 7



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Patented Oct. 20, 1925. 1,558,312

UNITED STATES PATENT OFFICE.

PETER SZENT, OF CHICAGO, ILLINOIS.

ELECTRIC FLATIRON.

Application filed March 8, 1922. Serial No. 542,191.

To all whom it may concern:

Be it known that I, PETER SZENT, a citizen of the United States of America, residing at 4162 Berkeley Avenue, Chicago, in the county of Cook and State of Illinois, have invented a new and useful Electric Flatiron, of which the following is a specification.

Among the objects of my invention are to provide an improved automatic mechanism for controlling the electric current supplied to a flat iron; to provide improved mechanism for automatically regulating the flow of current through a flat iron; to provide improved means for turning off and on the current supplied to a flat iron in accordance with the temperature conditions in the iron; to provide automatic means of the character stated having manual means for varying to a predetermined point the temperature at which the automatic means will function; and such further objects, advantages, and capabilities as will later more fully appear.

My invention further resides in the combination, construction, and arrangement of parts illustrated in the accompanying drawings and, while I have shown therein a preferred embodiment of my invention, I desire the same to be understood as illustrative only and not as limiting said invention.

In the drawings attached hereto and forming a part hereof, Fig. 1 is a plan view of the regulator or thermostat; Fig. 2 is a broken transverse section taken substantially along the plane of the irregular line 2—2, Fig. 1; Fig. 3 is a view, in perspective, of a portion of the controlling mechanism; Fig. 4 is a cross-sectional view through the manual adjusting means; Fig. 5 is a broken elevation taken from the right side in Fig. 1; Fig. 6 is a vertical, longitudinal, central sectional view of the electric flat iron completely assembled; Fig. 7 is a broken top view of the completely assembled flat iron with the handle removed to permit a clear view of the regulator.

Referring more in detail to the annexed drawings, numeral 1 designates the base portion of a flat iron and 2 the top plate thereof, these two parts being held together by means of screws 3 and 4. Between the plates 1 and 2 is the resistance wire 5, by means of which the iron is heated. One end of the resistance wire is connected to a terminal 6 while the other end thereof is connected to the contact bar 14 through the bolt 15. Placed above the top plate 2 is a reinforcing plate 7 and a cover 8, whereby there is formed a chamber 9 in the upper portion of the iron into which heat may radiate from the heated portion thereof. The parts 7 and 8 are secured to the lower portion by means of a nut 10, or the like, fastened upon the bolt or screw 4. Secured to the base portion of the iron, within the chamber 9 and in an opening extending through plate 7 and cover 8, is a regulator thermostatically controlling the heating circuit as indicated hereinafter, this element having a scale 12 covered by a transparent face or cover plate 13, the scale being carried by a face plate 16.

Mounted upon the face plate 16 and between it and the cover plate 13 is a contact member 17, held in place by a bolt or the like 18. This bolt is connected to one of the contacts 6 by means of a lead wire, whereby the circuit is completed through the iron except for connection between the contact bar 14 and the contact member 17. This connection is completed through a swinging arm 19, pivoted at 20. The member 21 which serves as a pivotal axis about which arm 19 turns is a bell crank whose bowed portion is received between the arms 22 of the thermostatic member 23, fitting closely enough between the same so that there shall not be substantial play between the parts as the thermostat swings back and forth under the influence of the heat from the heating element. The thermostatic element 23 is carried by a block 24 securely fastened to one wall of the regulator chamber, such as the base 25 thereof. As the thermostat 23 expands under the influence of heat, the crank 21 is caused to turn and this carries the contact arm 19 out of engagement with the contact 17, thereby breaking the circuit and interrupting the flow of current. The temperature at which the circuit is opened may be varied by adjusting the position of the contact 17, which is done by turning the screw 26. It will be seen from the foregoing that as the thermostat moves under the influence of heat, contact arm 19 is removed from contact 17, sliding on both it and contact bar 14, and that as the iron cools off after the circuit has been opened, thermostatic bar 23 will bend in the opposite direction and cause the arm 19 to close the circuit between 14 and 17.

It is, of course, understood that the specific description of structures set forth above

may be departed from without departing from the spirit of my invention as set forth in this specification and the appended claims.

Having now described my invention, I claim—

1. In an electric flat iron having a heating unit, a circuit control means comprising a pair of spaced contacts, a circuit closer adapted to make contact with both of the aforesaid contacts, and a thermostatic means adapted to actuate the circuit closer to open and close the circuit upon temperature changes in the iron.

2. An electric flat iron provided with a heating unit having a pair of terminal contacts, a circuit control means comprising a pair of spaced switch contacts, and a thermostatically controlled switch element engaging both of the switch contacts to close the circuit through the heating unit and engaging one of said contacts but disengaging the other of said contacts to open said circuit.

3. In an electric flat iron having a heating unit, a circuit control means comprising a pair of spaced contacts, a switch sliding over one of the contacts and adapted to slide over or away from the other contact to close or open the circuit, and a thermostatic means to actuate the switch into either circuit closing or circuit opening position.

4. In an electric flat iron having a heating unit, a circuit control means comprising a pair of spaced contacts, a swinging contact arm engaging one of the aforesaid contacts and adapted to engage or be disengaged from the other contact, a crank in said arm, a thermostatic means engaging said crank to actuate the same and said arm to open and close the circuit with changes in temperature in the iron.

5. In an electric flat iron having a heating unit, a circuit control means therefor comprising a pair of spaced contacts, one of said contacts being fixed and the other adjustable in a plane substantially parallel to the plane of the fixed contact, and a thermostatically controlled swinging contact engaging the fixed contact and adapted to engage or be disengaged from the adjustable contact upon temperature changes in the iron.

In witness whereof, I hereunto subscribe my name to this specification.

PETER SZENT.