

March 18, 1941.

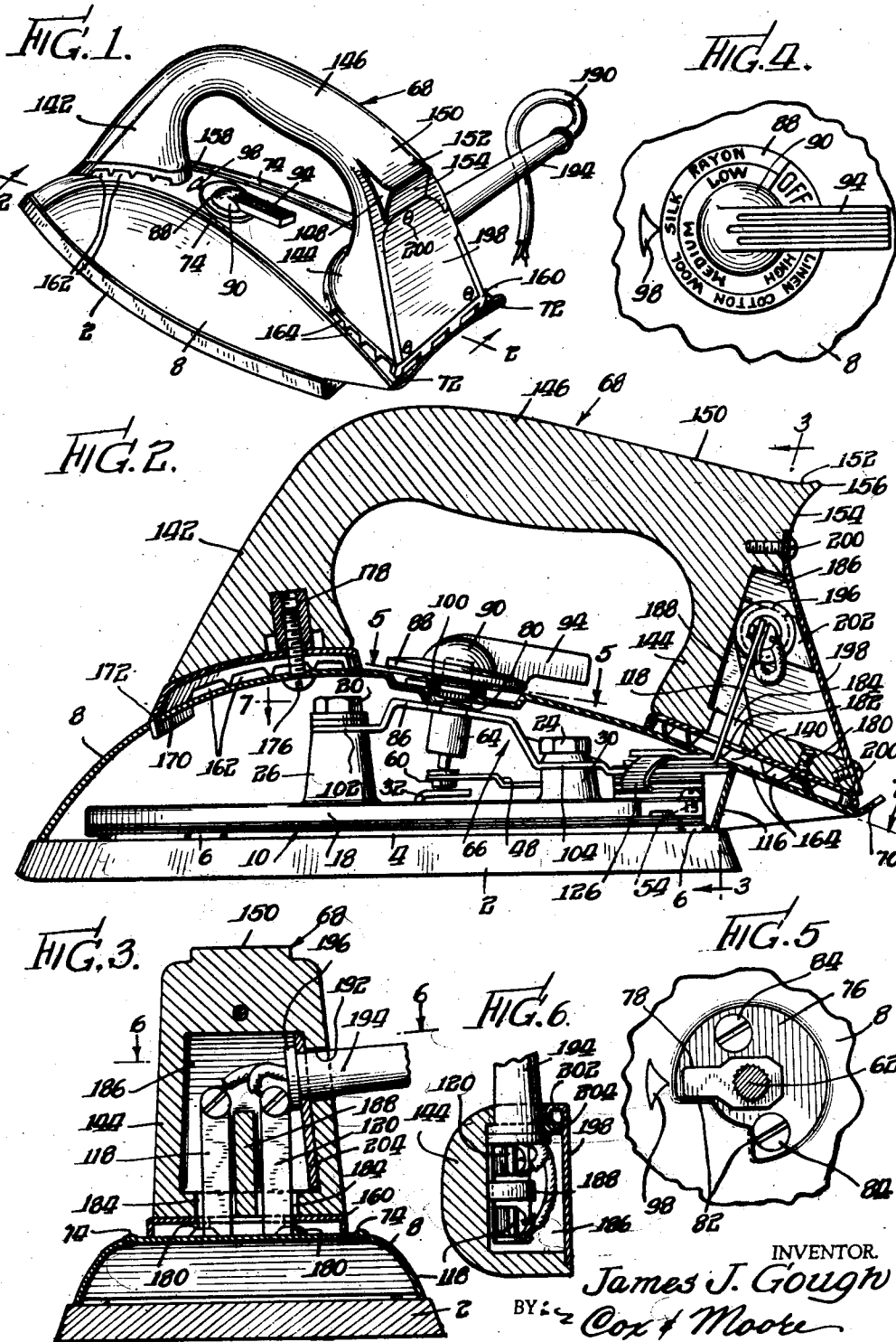
J. J. GOUGH

2,235,479

ELECTRIC IRON

Filed Feb. 7, 1940

2 Sheets-Sheet 1



March 18, 1941.

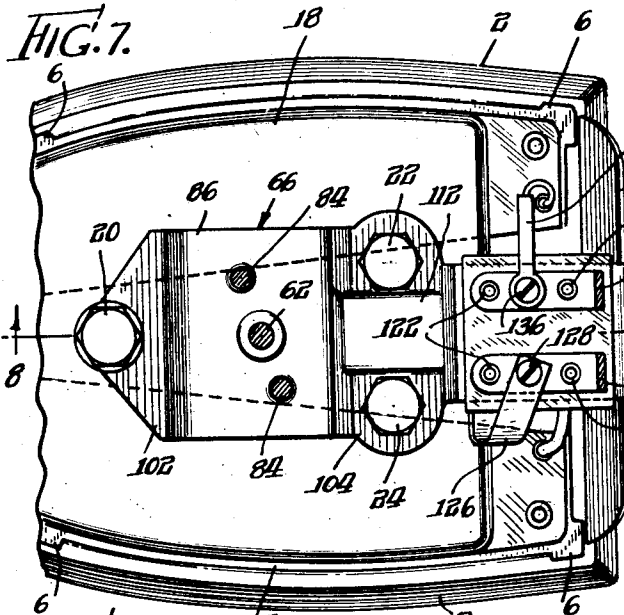
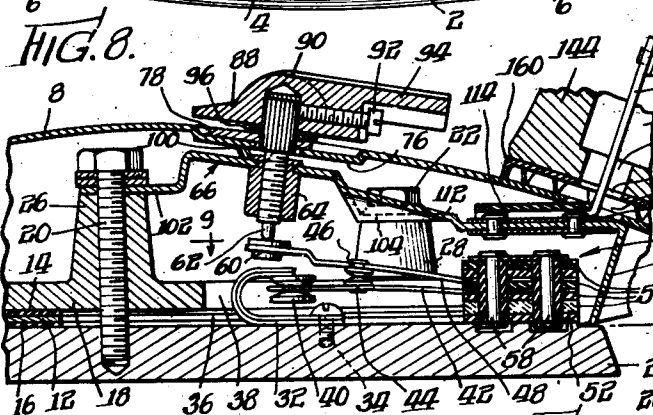
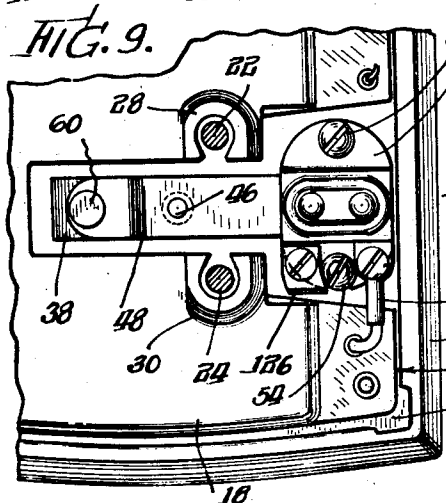
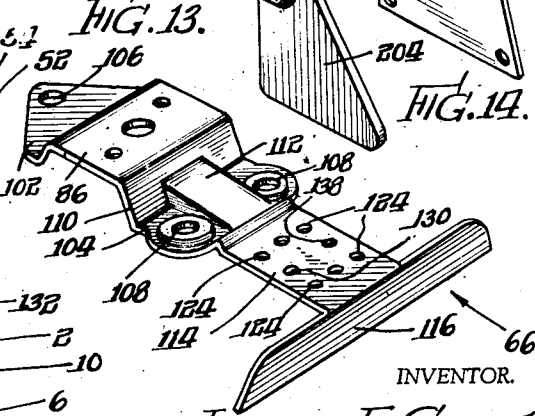
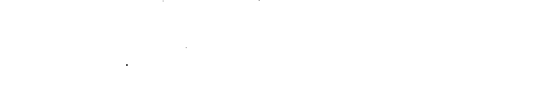
J. J. GOUGH

2,235,479

ELECTRIC IRON

Filed Feb. 7, 1940

2 Sheets-Sheet 2



INVENTOR.
BY: James J. Gough
Cox & Moore ATTORNEYS.

UNITED STATES PATENT OFFICE

2,235,479

ELECTRIC IRON

James J. Gough, Chicago, Ill., assignor to Chicago
Electric Manufacturing Company, Chicago, Ill.,
a corporation of Illinois

Application February 7, 1940, Serial No. 317,644

12 Claims. (Cl. 219—25)

This invention relates to an electric iron.

It is an object of this invention to simplify the construction, decrease the heating of the handle, and improve the operation of an electric iron; and particularly, a thermostatically controlled temperature adjustable electric iron.

A further object of applicant's invention is to provide an iron with a one piece streamlined shell construction in combination with extremely simple means for supporting the temperature adjustment means, the terminal means, and in addition providing an intermediate support for the shell, cooperating with the shell to form a housing chamber for the working parts of the iron. Applicant's invention also contemplates the provision of simple, inexpensively produced and assembled means for supporting the handle in spaced relation to the shell so that air may circulate in the space between the handle and the shell to dissipate the heat of the shell, and maintain the handle in a relatively cooler condition.

Another object of the invention is to provide in an iron a streamlined handle mounted on a streamlined shell and provided with a cavity housing the terminals of the iron and having an integral flat and then outwardly turned surface portion forming a rest for the fleshy part of the hand of the user, and a relatively thin edge for supporting the iron in vertical position, the cavity in the handle being closed by a member which locks in place a member cooperating with a portion of the handle to form a supporting bushing for the supply conductor or cord.

A further object of the invention is to provide a thermostatically controlled iron, wherein the thermostatic control element is mounted in direct heat conducting relation to and upon the sole plate of the iron and always exercises its control functions at the desired temperatures of the sole plate, and the temperature adjusting element is supported independently of the temperature controlled and adjustable contacts, so that the adjustment of the element will not affect the mounting for the contacts, and the contacts may be readily and independently replaced when worn.

Other and further objects and advantages of the invention will be apparent from the description when taken in connection with the accompanying drawings, wherein:

Fig. 1 is a view in perspective of an electric iron constructed in accordance with the present invention;

Fig. 2 is an enlarged longitudinal view in vertical section taken substantially along the line 2—2 of Fig. 1;

Fig. 3 is a view in lateral vertical section taken along the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary plan view showing the temperature adjusting control member;

Fig. 5 is a fragmentary view in horizontal section taken substantially along the line 5—5 of Fig. 2;

Fig. 6 is a view in horizontal section taken substantially along the line 6—6 of Fig. 3;

Fig. 7 is a fragmentary enlarged view in generally horizontal section taken along the line 7—7 of Fig. 2;

Fig. 8 is a fragmentary view in longitudinal vertical section taken along the line 8—8 of Fig. 7;

Fig. 9 is a fragmentary view in generally horizontal section taken along the line 9—9 of Fig. 8;

Figs. 10 and 11 are views in perspective of the handle supporting or spacing members;

Fig. 12 is a view in perspective of the enclosure member for the terminal housing cavity of the handle;

Fig. 13 is a view in perspective of an internal supporting member, and

Fig. 14 is a view in perspective of an auxiliary member cooperating with the handle to support the supply cord.

As shown in the drawings, an electric iron constructed in accordance with applicant's invention embodies a sole plate 2 having a reduced upper surface portion 4 from which extends small pieces or lugs 6 adapted to engage the inner surface of the shell 8 at the lower edge thereof to position the shell on the sole plate in proper position relative thereto and tending to limit or prevent lateral movement of the shell on the sole plate. The heating element 10 rests upon the upper surface portion 4 of the sole plate, and may be of any convenient conventional structure, but preferably comprises the usual resistance coil wound on an insulating plate 12 interposed between upper and lower insulating plates 14 and 16. The heating element is clamped in position on the sole plate by a clamping plate 18 of a shape similar to the sole plate and secured to the sole plate by screws 20, 22 and 24 passing through apertured bosses or lugs 26, 28 and 30 formed integrally with the clamping plate and projecting upwardly therefrom.

A bimetallic thermostatic control element 32 is fastened directly to the sole plate in heat conducting relation thereto as by a screw 34, the bimetal element passing upwardly through elongated openings 36 and 38 in the plates of the heating element 10 and in the clamping plate 18, and being bent to engage in overlying relation

an insulating button 40 secured to a resilient contact strip 42. Since the thermostatic element is in direct engagement with the sole plate, the heat of the sole plate is directly conducted to the thermostatic element, and the element therefore is constantly maintained at the temperature of the sole plate and follows directly the variations in temperature of the sole plate. As the temperature of the sole plate increases the radius of curvature of the forward end portion of the thermostatic element decreases so that the free edge of the element deflects the resilient contact strip downwardly to separate the contact 44 carried thereby from the upper contact 46 carried by a superimposed resilient contact strip 48. As the temperature of the sole plate decreases the free end of the thermostatic element moves upwardly and the resilience of the contact strip 42 causes its contact 44 to reengage the contact 46.

The contact strips 42 and 48 are carried by a support 50 which comprises a plate or bracket 52 secured to the sole plate as by screws 54 on which is supported a series of insulating blocks or pieces 56 insulatingly supporting the contact strips 42 and 48 on the plate 52 and insulating the strips from each other, the insulating pieces being fastened together as by insulated rivets or pins 58. It will be seen that by virtue of this mounting the contact strips are supported as an independent unit on the sole plate so they may be readily removed independently of the other working parts of the iron, or for replacement as the contacts or strips become worn.

The contact strip 48 carries at its outer end an insulating button 60 which by the resilience of the strip 48 is constantly maintained in contact with an adjusting screw 62 for determining the setting of the contact 46 relative to the contact 44. The adjusting screw 62 is mounted in an internally threaded bushing 64 passing through an opening in the mounting plate 66 and peened over at its upper edge and thus clamped to the mounting plate. The mounting plate 66 in addition to supporting the mounting bushing for the adjusting screw also provides a support for the terminal of the iron and intermediate support for the shell and a sole member cooperating with the shell to enclose the operating or working parts of the iron.

The cover plate or shell 8, which is preferably of sheet metal, is of streamlined configuration and extends from the toe of the sole plate to a point well beyond the rear or heel of the sole plate. The shell 8 rises from the toe of the sole plate to a point adjacent the rear edge of the forward foot portion of the handle 68 and then gracefully inclines downwardly to the point A (Fig. 2) beyond the heel of the sole plate at which point the slightly inclined rear portion of the lower edge of the shell intersects the upper surface of the shell. From this point the stock of the shell extends upwardly at an angle to the upper surface of the shell and to the lower edge of the shell to define a rest portion 70, the rest portion 70 being concave in transverse configuration to provide spaced feet 72 no thicker than the thickness of the stock from which the shell was formed. The upward turning of the portion 70 provides at the point A a rounded smooth edge, which will not snag or catch articles being ironed. The upward extension of the rest member disposes the entire member so that it will not snag or catch articles being ironed. The shell is formed with reinforcing ribs or ridges 74 extending longitudinally of the shell and in parallel relation from

the toe to a point adjacent the forward foot of the handle 68 and then flaring outwardly or diverging to the rear end of the shell.

The upper surface of the shell at an intermediate point, preferably centrally thereof, is depressed as at 76 to form a part circular cavity receiving a shiftable stop finger 78 splined or otherwise fastened to the upper end of the adjusting screw 62 which passes through an opening 80 in the bottom of the depressed portion 76. The stop finger 78 is limited in its movement by the vertical edges 82 which constitute edges of the part circular cavity formed by the depressed portion 76. The shell is secured to the mounting plate 66 as by screws 84 received in counter-sunk openings in the depressed portion 76 and threaded into the portion 86 of the mounting plate 66. The depressed portion 76 and the shiftable stop finger 78 and the screws 84 in this depressed portion are covered by the disc-like indicia bearing portion 88 of an adjusting member 90 pinned to the upper end of the adjusting screw 62 as by set screw 92 lying beneath a radially projecting operating finger 94 of the member 90. A resilient washer 96 is interposed between the disc-like portion 88 of the member 90 and the shiftable stop finger 78 so as to maintain this stop finger in surface engagement with the bottom of the depressed portion 76 as the adjusting screw 62 in being adjusted moves vertically. A reference symbol 98 for the indicia bearing disc portion 88 of the member 90 may be etched, stamped, or otherwise formed, in or on the shell adjacent the edge of the disc-like portion 88.

The portion 86 of the mounting plate 66, which portion supports the mounting bushing 64 for the adjusting screw 62, and the parts carried by this screw, and which also supports the shell 8, is inclined and extends generally parallel to the depressed portion 76 of the shell in close juxtaposition thereto so that the bottom of the depressed portion 76, counter-sunk as at 100 for the reception of the screws 84, engages the portion 86 of the mounting plate. Hence the shell is supported directly on the mounting plate so that the screws 84 act merely as fastening means, and in being placed will not warp the shell or the mounting plate to thus, as in prior devices, loosen the mounting plate from its support or destroy or detrimentally affect the calibration or setting of the thermostatic control means.

On opposite ends of the portion 86 the mounting plate is off-set downwardly to provide portions 102 and 104 extending substantially parallel to the plane of the clamping and sole plates and secured to the clamping plate by being interposed between the head of the mounting screws 20, 22, and 24 and the associated bosses 26, 28 and 30 of the clamping plate. The off-set portions 102 and 104 of the mounting plate are provided with apertures 106 and 108, respectively, for receiving the shanks of the attaching screws.

The flange 110 connecting the portion 86 to the portion 104 of the mounting plate is reinforced by a portion or section 112 pressed upwardly from the portion 104 and the flange 110 so as to strengthen the support offered for the portion 86. The mounting plate 66 rearwardly of the off-set portion 104 provides a terminal mounting portion 114 of relatively reduced cross-section terminating in an enlarged downwardly extending shell supporting and closure member 116. The shell supporting and closure member, or portion 116 of the mounting plate, is preferably inclined to the plane of the sole plate and

extends substantially at right angles to the wall or wall surfaces of the shell so as to provide an efficient supporting member not liable to deformation as the user applies a downward and forward thrust on the handle in utilizing the iron. The upper and outer edges of the portion 116 of the mounting plate engage the entire wall or wall surfaces of the shell in the plane of this portion and at its lower edge engages the rear pieces or lugs 6 extending outwardly from the inwardly off-set surface portion 4 of the sole plate so that the forward and downward thrust applied to the shell through the handle will be directly transmitted by the portion 116 to the sole plate. It will be extremely unlikely therefore that the forces applied to the shell or the inertia of the sole plate will cause a deformation or warping of the mounting plate 66 and/or the shell 8.

The terminals 118 and 120, which are preferably of relatively thin bar stock, are supported on the portion 114 of the mounting plate by insulated pins or rivets 122 passing through openings 124 in the portion 114 of the mounting plate, the terminals being insulated from the portion 114 by suitable strips of insulation. The terminal 118 is connected to the contact carrying strip 48 as by a conducting strap 126 secured by screw 128 to the terminal 118, the screw 128 passing through an enlarged opening 130 in the portion 114 of the mounting plate. One end of the resistance member of the heating element 10 is connected to the contact carrying strip 42 as by the terminal 132 and the other end of this resistance member is connected to the terminal 120 as by a strap 134 secured to the terminal by the screw 136, the screw 136 passing through an enlarged opening 138 in the portion 114 of the mounting plate. The terminals or bars 118 and 120 pass upwardly from the mounting plate at an angle through an opening 140 in the rear portion of the shell, and are received in a cavity in the handle 68.

The handle 68 is of a streamlined configuration and preferably formed of a suitable heat-resisting moldable material, such as Bakelite or similar substance. It comprises a forward or front foot portion 142, a backward or rear foot portion 144, and an interconnecting integral hand grip portion 146. At the juncture of the hand grip portion 146 and the rear foot portion 144 the handle is provided with an integral rearwardly projecting portion 148 which is formed with an upper surface portion which merges into the upper surface of the rounded hand grip portion 146, but is substantially flat throughout its larger portion as at 150, the surface portion 150 merging into a slightly upturned end portion 152 which forms with the rear generally concave surface 154 a relatively thin edge 156 which cooperates with the relatively thin feet 72 of the rest portion 70 in supporting the iron in vertical position. By reason of the substantially flat surface portion 150 and the slightly upturned surface portion 152, the rest member 148 provides a very restful support for the fleshy part of the hand of the user as he pushes downwardly and forwardly to move the iron over an article being ironed.

In order to maintain the handle in a much cooler condition than the shell, front and rear members or means 158 and 160 are provided which support the handle in spaced relation to the upper surface of the shell and conform in shape to the front and rear foot portions 142

and 144 of the handle at the bottom thereof, the peripheral walls of these members 158 and 160 conforming to the lines of the handle. The vertical wall or walls of these members are provided with a plurality of spaced openings 162 and 164, respectively, separated or defined by generally triangular pieces or lugs 166 and 168, respectively, providing substantially point-like sources of engagement with the surface of the shell, and therefore automatically aligning the members relative to the surface of the shell and permitting greater tolerances in the manufacture of these irons. The pointing of the lugs 166 and 168 also reduces the conduction of heat from the shell to the members to a minimum. The front member 158 at its forward toe portion is formed with a downwardly extending lug or lugs 170 received in a substantially V-shaped opening 172 in the shell to secure the member more rigidly against forward movement relative to the shell. The openings 164 in the rear vertical wall of the rear handle supporting member are defined or spaced by generally rectangular pieces or lugs 174 which engage the surface of the shell along the edge A defined by the rest portion 70 of the shell so that these pieces or lugs are in engagement with this rest portion, thereby preventing rearward movement of this member 168. It will be seen that the lugs or pieces 170 and 174 in preventing movement of the handle supporting and spacing members 158 and 160 relative to the shell also increase the rigidity of the connection of the handle to the shell. The openings 164 in these handle supporting and spacing members permit a relatively large volume of air to circulate between the surface of the shell and the front and rear feet of the handle, so that the handle is maintained in a relatively cooler condition, and the heat of the shell is more effectively dissipated. Also it should be noted that the handle supporting and spacing members 158 and 160 provide a very convenient and simple way in which to support a moulded handle on a streamlined metal shell, it having been found difficult to so precisely form the moulded surfaces of the front and rear feet of such a handle, and the surface of the shell, that the handle may be mounted on the shell without disfiguring spaces between these surfaces. The members 158 and 160 being of relatively thin sheet metal stock can be easily formed or reshaped in assembling the iron so that the handle rests snugly upon the upper surface of these members while the lower edges of these members snugly contact and conform to the lines of the shell. The handle is fastened to the shell by a screw 176 received in an internally threaded bushing or sleeve 178 in the front foot portion 142 and by screws 180 countersunk in the upper surface of the shell and threaded in the rear foot portion 144.

The terminals or bars 118 and 120 pass through enlarged openings 182 and 184 in the rear handle supporting member 160 and the rear foot 144 of the handle and into a cavity 186 in this rear foot portion. A partition 188 formed integrally with the handle projects into the cavity 186 between the terminals 118 and 120 and provides means insuring maintenance of the terminals in the proper spaced relation. The supply conductor or cord 190 passes into the cavity 186 through a slot or opening 192 formed in a side wall of the rear foot portion 144 and is connected within the cavity to the terminals 118 and 120. The cord is provided with a tapered rubber bushing 194 formed at its inner end with an an-

nular flange 196 engaging the inner wall of the cavity about the opening 192. The cavity 186 is closed by a plate or closure member 198 set into the rear surface of the handle and secured thereto as by screws 200. The plate or closure member 198 is curved outwardly adjacent its upper end to merge uniformly into the concave rear surface 154 of the rest member or portion 140 of the handle. As shown best in Figure 12 the closure member 198 is formed with an integral lug or flange 202 of reduced size extending into the slot or opening 192 to close the rear portion of this slot or opening. A member or plate 204, preferably of insulating material, is fitted into the cavity 186 against the slotted side wall of the cavity and is slotted as at 206 to embrace therein the end of the bushing 194. The member 204 is of a size such that when fitted into the cavity 186 and locked in place by the closure member 198, it compresses and clamps the bushing against the forward wall of the slot 192 and is interposed between the side wall of the cavity 186 and the annular flange 196 of the bushing so as to retain the supply cord against outward movement.

It will be seen from the foregoing description that applicant has provided an electric iron in which the construction is simplified; the heating of the handle is decreased; the operation of an electric iron is improved; the iron embodies a one-piece streamlined shell construction in combination with extremely simple means which supports the temperature adjustment means, the terminal means, and in addition provides an intermediate support for the shell, cooperating with the shell to form a housing chamber for the working parts of the iron; means are provided so that air may circulate in the space between the handle and the shell to dissipate the heat of the shell and maintain the handle in a relatively cooler condition; the iron comprises a streamlined handle mounted on a streamlined shell and provided with a cavity housing the terminal of the iron; the handle of the iron has an integral flat and then outwardly turned surface portion forming a rest for the fleshy part of the hand of the user, and a relatively thin edge for supporting the iron in vertical position; the terminal receiving cavity in the handle is closed by a member which locks in the cavity a member supporting the supply conductor or cord against breakage due to strains upon the cord; the iron embodies a thermostatic control element mounted in direct heat conducting relation to and upon the sole plate of the iron and always exercising its control functions at the desired temperatures of the sole plate; and in which the temperature adjusting element is supported independently of the temperature controlled and adjustable contacts, so that the adjustment of the element will not affect the mounting for the contacts, and the contacts may be readily and independently replaced when worn.

Changes may be made in the form, arrangement and construction of the invention without departing from its spirit or scope or sacrificing any of its attendant advantages, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

I claim:

1. In an iron, a sole plate and a streamlined shell mounted on the sole plate and having an upper surface curved in a longitudinal direction, a handle of streamlined configuration having

front and rear upright attaching portions disposed above the upper surface of the shell, said front and rear upright portions having lower surfaces complementarily curved in conformation to the curvature of the underlying shell surfaces and arranged parallel to and spaced from the portions of the upper surface directly therebeneath and spacing means disposed between said lower surfaces and the complementary upper surface portions of the shell, each spacer comprising a wall portion conforming to and contacting with the companion lower surface of the handle and having a marginal peripheral flange projecting downwardly as a continuation of the adjacent side surfaces of the handle member, said flange being cut away to provide longitudinally disposed spaced V-shaped projections each making longitudinally spaced point contacts with the shell at said longitudinally curved portions and residing in a plane conforming to the curvature thereof.

2. In an electric iron, a sole plate, an electric heating element carried by the sole plate, a pair of upper and lower relatively separable resilient contact members mounted as a separate unit on the sole plate and in circuit with said heating element, said members being normally resiliently urged into contacting relation closing said circuit, thermostatic control element comprising a generally U-shaped temperature responsive element having one flat portion fixedly mounted on the sole plate in engaging relation with the sole plate, one end of the temperature responsive element being free and in operative circuit breaking position adjacent said lower contact member, said U-shaped element having its curved portion adapted to decrease in radius of curvature at elevated temperatures whereby to bring said free end toward said fixed end to engage and separate the lower from the upper of said contact members.

3. In an electric iron, a sole plate, an electric heating element carried by the sole plate, a pair of upper and lower relatively separable contact members carried by said sole plate in circuit with said heating element, a bimetallic element secured in engaging relation with said sole plate and having a reversely curved free end portion of a curvature increasing as the temperature of the sole plate increases to engage and separate the lower of said contact members from the upper of said contact members when the sole plate reaches a predetermined temperature.

4. In an electric iron, a sole plate, an electric heating element carried by the sole plate, a pair of relatively separable contact members insulantly supported as a unit upon said sole plate in spaced relation thereto and in circuit with said heating element, a thermostatic control element secured in engaging relation with said sole plate beneath said contact members, means for adjusting said contact members relative to the thermostatic control element whereby to variably control the temperature of separation of the contacts, said thermostatic control element having a reversely curved substantially U-shaped free end portion overlying one of said contact members and of a curvature increasing as the temperature of the sole plate increases to engage and separate one of said contact members from the other when the sole plate reaches a predetermined temperature.

5. In an electric iron, a sole plate, an electric heating element, a pair of relatively separable contact members insulantly supported as a unit

on said sole plate in spaced relation thereto and in circuit with said heating element, a thermostatic control element carried by the sole plate in heat exchange relation thereto and operatively connected to said contact members for separating said contact members when the sole plate reaches an elevated temperature, means for adjusting said contact members relative to the thermostatic control element to adjustably predetermine the temperature at which the contact members are separated by said thermostatic control element, a covering shell from which said adjusting means projects for manual manipulation, terminals for said iron connected in circuit with said contact members and said heating element and extending out of said shell, and a mounting member attached to the sole plate and having in spaced relation to said sole plate portions on which are mounted said adjusting means and said terminals an integral portion engaging the inner surface of the shell and extending into engagement with the sole plate adjacent its rear end to cooperate with the shell in enclosing the heating element and contact members and providing an intermediate support for the shell.

6. In an iron, a sole plate, means mounted on the sole plate for heating the sole plate, a one-piece thin metal shell of streamlined configuration extending beyond the sole plate, a mounting member attached to the sole plate to which the shell is in turn attached, said mounting member having a portion extending transverse to the shell and sole plate and engaging the sides and top of the inner surface of the shell and the surface of the sole plate to cooperate with the shell in enclosing the heating means and to intermediately support the shell against diagonal downward and forward forces exerted on the shell during use.

7. In an electric iron, a sole plate, heating means carried by the sole plate, a one-piece shell of thin metal stock disposed on the sole plate and in covering relation with respect to the heating means, said shell being of streamlined contour and terminating rearwardly of the sole plate in an integral rest portion extending upwardly and rearwardly from the surface of the shell for supporting the iron when in vertical position, a handle having front and rear foot portions, and front and rear spacer members supporting the front and rear foot portions of the handle on the shell, the front spacer member having an interlocking connection with the shell and the rear spacer member having a marginal flange portion received in the recess provided in the shell by the upward projection of the metal forming the rest portion.

8. In an electric iron, a sole plate, electrical heating means carried by the sole plate, a one-piece shell of streamlined configuration extending rearwardly beyond the heel of the sole plate, terminals connected to said electrical heating means and adapted to receive a supply cord, and a member secured to the sole plate for supporting the shell and the terminals and providing an integral rear wall portion extending between and engaging the shell and sole plate adjacent the rear end of the sole plate to cooperate with the shell in enclosing the heating means, and said member providing an intermediate support for said shell.

9. In an electric iron, a sole plate, an electric heating element mounted on the sole plate, a

shell carried by the sole plate in covering relation to the heating element, terminals connected to said heating element and supported on the sole plate within the shell, a handle surmounting the shell and having an opening into which the terminals project from the shell, a wall of the opening having an aperture to permit the passage of a supply cord therethrough, a closure member forming another wall of the opening, and a separate, shiftable member held in said opening by said closure member and partially overlapping said aperture to clamp the cord.

10. In an electric iron, a sole plate, an electric heating element mounted on the sole plate, a shell of streamlined configuration carried by the sole plate in covering relation to the heating element, terminals connected to said heating element and supported on the sole plate within the shell, a handle surmounting the shell and having an opening into which the terminals project from the shell, a wall of the opening having an aperture to permit the passage of a supply cord therethrough a closure member forming another wall of the opening and conforming to the streamlined configuration of the handle, and a separate shiftable member held in said opening by said closure member and having a slot therein to receive the cord, the cord having an enlarged part abutting the inner surface of said member and held thereby against outward movement.

11. In an electric iron, a sole plate, an electric heating element carried by the sole plate, a shell carried by the sole plate in covering relation to the heating element, terminals within said shell connected to said heating element and extending through the shell, a handle surmounting the shell and having a rearwardly facing opening into which the terminals project from the interior of the shell, a side wall of the opening being slotted to permit passage of a supply cord therethrough for attachment to the terminals, a closure member for said opening and having a portion extending in the plane of the side wall to close the rear portion of the slot in the side wall, and a clamping plate in the opening in the handle and having a slot to receive the supply cord and cooperating with the slotted side wall to clamp the supply cord, said clamping plate being detachably held in said opening by said closure member and the opposite wall of said opening.

12. In an electric iron, a sole plate, an electric heating element carried by the sole plate, a shell carried by the sole plate in covering relation to the heating element, a handle surmounting the shell, said handle having front and rear foot portions supporting the handle on the shell, said rear foot portion of the handle having an outwardly facing opening therein, terminals within said shell and connected to said heating element, said terminals projecting through said shell into the opening in the rear foot portion of the handle, spacers between said front and rear portions of the handle and said shell for supporting the handle in spaced relation to the shell to permit the circulation of air between the shell and foot portions of the handle, the spacer between the rear foot portion of the handle and the shell being cut away to permit passage of the terminals therethrough, and a closure member for said opening and detachably connected to the rear foot portion of the handle.

JAMES J. GOUGH.

CERTIFICATE OF CORRECTION.

Patent No. 2,235,479.

March 18, 1941.

JAMES J. GOUGH.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 5, first column, line 39, claim 6, after "use" and before the period insert the words --of the iron--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 27th day of May, A. D. 1941.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.

CERTIFICATE OF CORRECTION.

Patent No. 2,235,479.

March 18, 1941.

JAMES J. GOUGH.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 5, first column, line 39, claim 6, after "use" and before the period insert the words --of the iron--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 27th day of May, A. D. 1941.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.