Nov. 29, 1938. G. BLAIR 2,138,567

IRONING DEVICE

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Fig. 1.

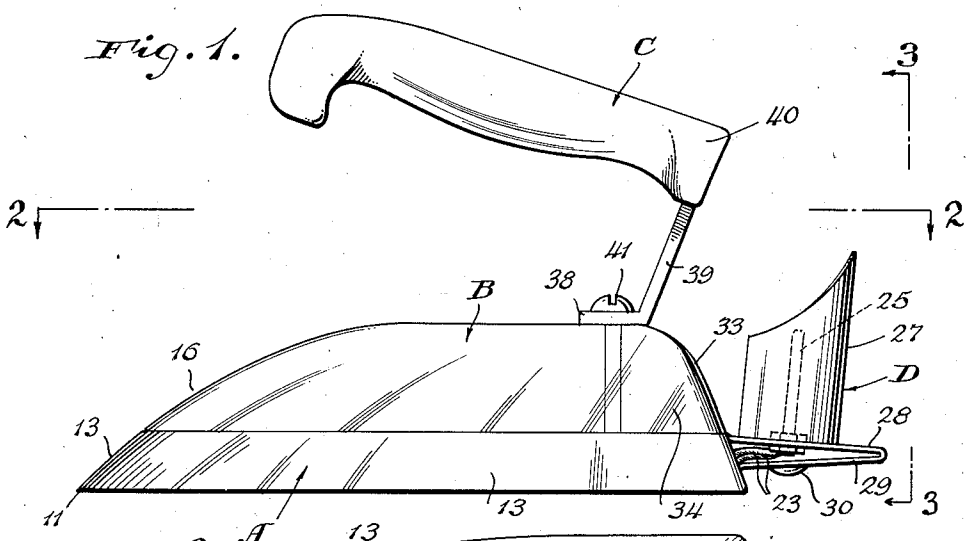


Fig. 2.

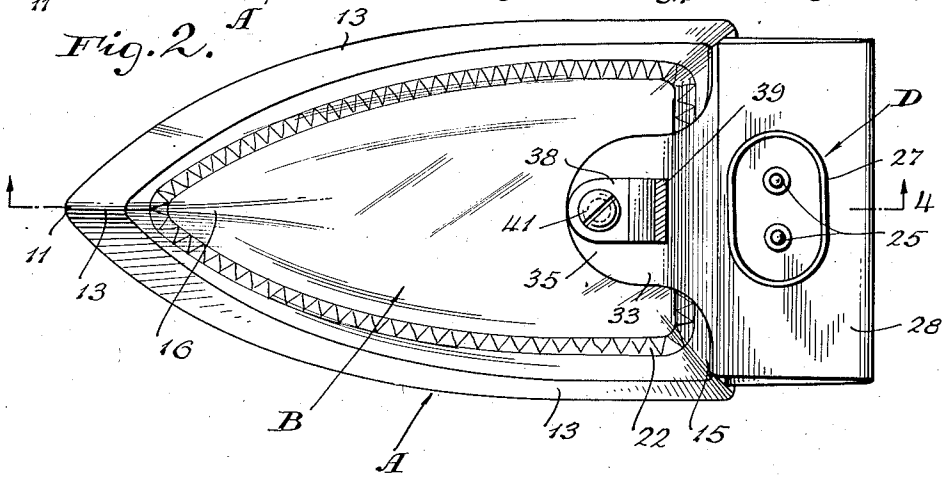
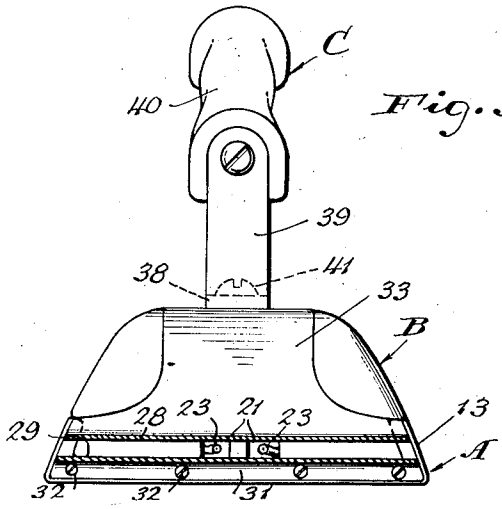


Fig. 3.



INVENTOR.
GERHARDT BLAIR
BY Richards & Geier
ATTORNEYS

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Fig. 4.

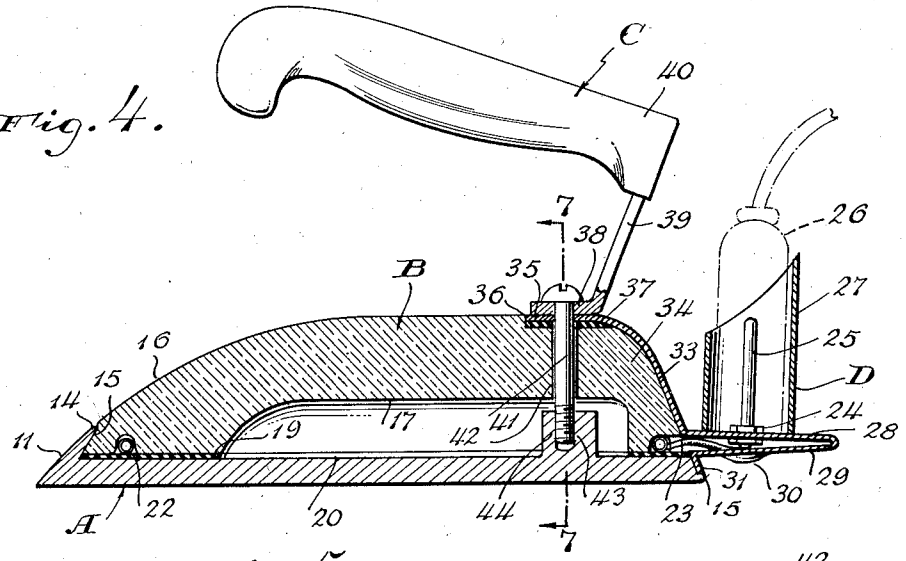


Fig. 5.

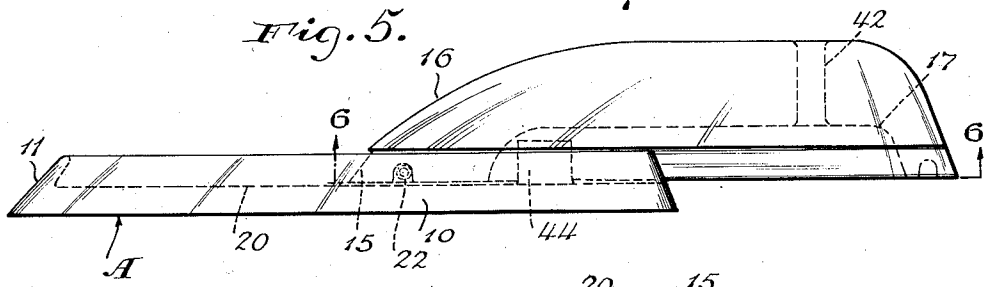


Fig. 6.

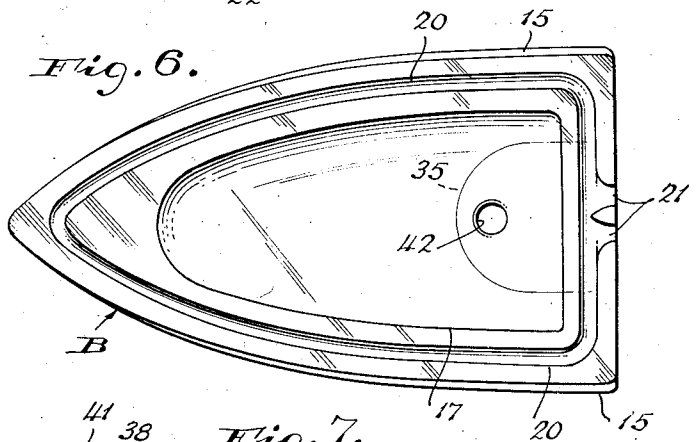
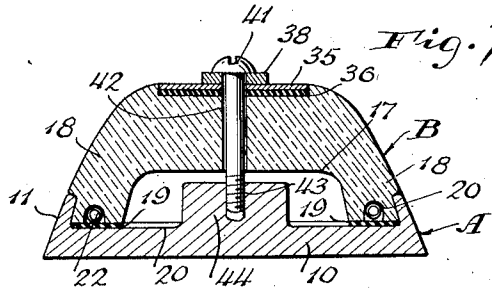


Fig. 7.



INVENTOR.
GERHARDT BLAIR
BY
Richards & Geier
ATTORNEYS

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Fig. 8.

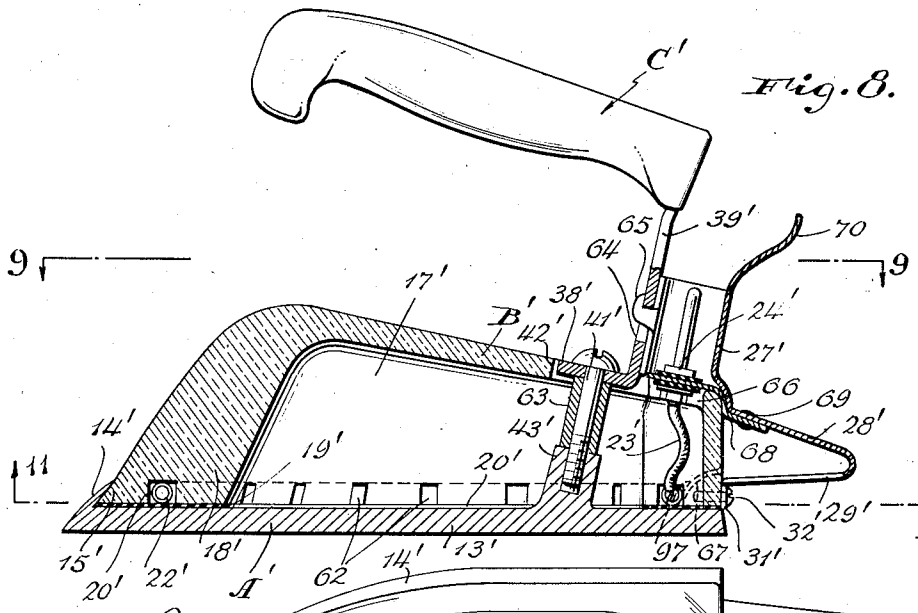


Fig. 9.

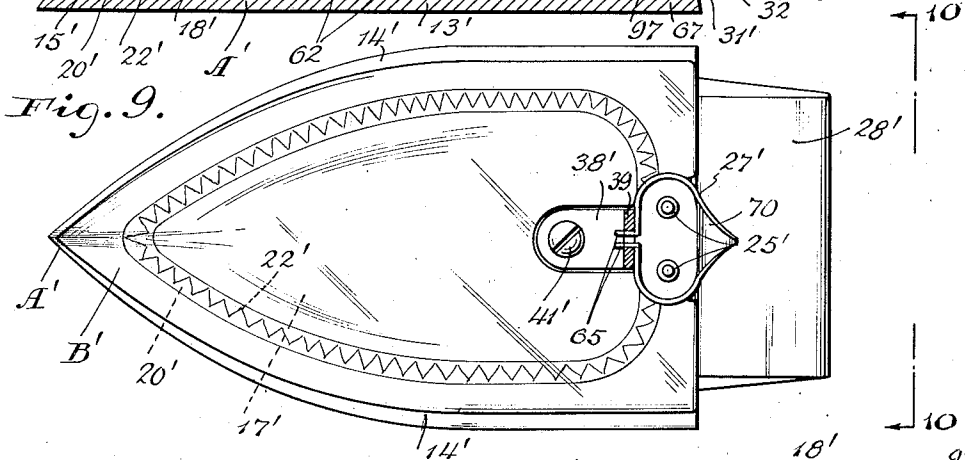


Fig. 11.

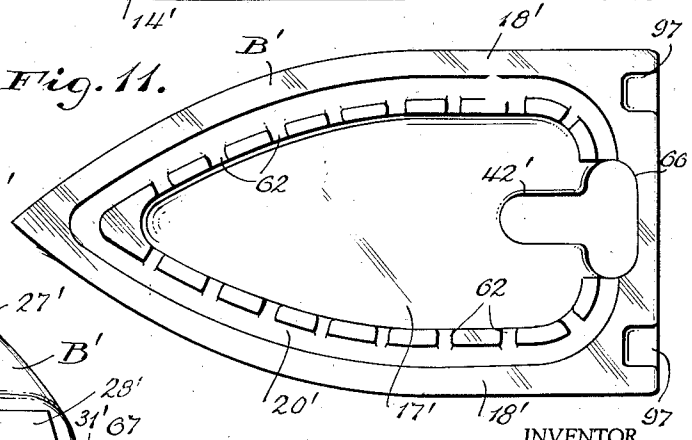
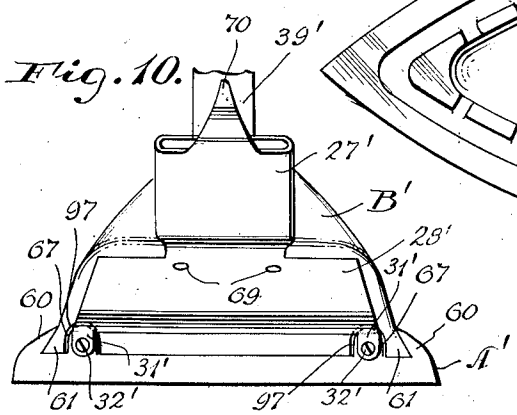


Fig. 10.



INVENTOR.
GERHARDT BLAIR
BY
Richards & Geier
ATTORNEYS

Patented Nov. 29, 1938

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UNITED STATES PATENT OFFICE

2,138,567

IRONING DEVICE

Gerhardt Blair, Newfoundland, N. J., assignor of one-half to Paul Heymann, New York, N. Y.

Application March 18, 1937, Serial No. 131,571

9 Claims. (Cl. 219—25)

The present invention relates to an electric iron and particularly relates to an electric ironing device for domestic uses.

Ironing devices now in use in the household and home, are provided with a metal base, a metal cover and an insulating handle, the heating element being enclosed in the metal base so as not to be visible.

As a result, the iron will often be heating and the current will be turned on without its being brought to the notice of the user or possessor.

It is often desirable to determine when the iron has been left burning or whether it is turned off and it is among the objects of the present invention to provide an inexpensive, durable and readily operable electric iron construction of this character in which it will be possible for the housewife or domestic servant to determine when the iron is operating and/or when the current has been turned off.

Other objects will be obvious or will appear during the course of the following specification.

In accomplishing these objects, it has been found most desirable to provide a glass window or glass cover for the iron construction which may be a unitary part of the iron construction, and, at the same time, will enable ready observation of the heating element thereof.

In one type of construction, the iron base is provided with a peripheral ridge and with a centrally positioned tapped boss, the back of the iron being so arranged that a glass cover element may be slid into position and prevented from sliding off the iron base by a single bolt.

This bolt may also serve as a means of attachment for a handle and an electrical plug member, which handle and plug member may also be detachably connected to the rear of the metallic base.

The above and other objects will appear more clearly from the following description when taken in connection with the accompanying drawings showing preferred embodiments of the inventive idea.

In the drawings:

Figure 1 is a side view of one form of electric iron construction.

Figure 2 is a top view upon the line 2—2 of Figure 1.

Figure 3 is a rear view upon the line 3—3 of Figure 1.

Figure 4 is a longitudinal sectional view upon the line 4—4 of Figure 2.

Figure 5 is a view of the iron base and glass cover showing the glass cover before it is moved into position.

Figure 6 is a bottom view of the glass cover upon the line 6—6 of Figure 5.

Figure 7 is a cross sectional view upon the line 7—7 of Figure 4.

Figure 8 illustrates a slightly different embodiment in side sectional view similar to Figure 4.

Figure 9 is a top view partly in section on the line 9—9 of Figure 8.

Figure 10 is a rear view upon the line 10—10 of Figure 9 with the handle broken away.

Figure 11 is a bottom view upon the line 11—11 of Figure 8 with the glass cover.

Referring to Figures 1 to 7, the electric iron includes the base A, a transparent cover B, and handle C and electrical connection D.

The base includes a relatively flat metal plate 10, which converges to a point 11, at its forward end, and the sides of which are inwardly bevelled as indicated at 13.

The sides have an upstanding lip 14 which is not present in the rear 15, within which lip 14 is received the glass cover member B.

The glass cover member B is provided with a peripheral recess 15, which receives said lip 14, the outer face 15 of said cover being flush with the bevel face 13 and the base A.

The glass top is recessed as idicated at 17 in Figures 4 to 7 and is provided with a peripheral portion 18, which contacts the mica plate 19, and presses against the interior face 20 of the base A.

In the lower face of the portion 18, is the peripheral groove 20, best shown in Figure 6 which extends entirely around the cover B and is provided with the inlet and outlet portions 21 (see Figure 6).

Within the groove 20 is positioned the electric coil 22, which at the rear end of the iron is connected to the electrical conduits 23 (see Figure 4). These conduits 23 are connected at 24 to the prongs 25 designed to receive an electrical connecting plug indicated in dotted lines at 26 in Figure 4.

The prongs are enclosed by the casing 27 which receives the sides of the plug 26 and said casing 27 with the prongs 25 are mounted upon a spring steel base 28 which has a lower portion 29, the base 28 and the lower portion 29 enclosing the lead in wires 23.

The spring base 28—29 serves as a support leg to enable the iron to be placed in upright position.

The lower plate 29 is provided with an enlargement 30 opposite the connections 24 to the plugs 25 and it has a flange 31 fitted into the recess in

the rear of the base A, and screwed into position by the screws 32.

The upper plate 28 is turned upwardly, as indicated at 33 over the back portion 34 of the glass top B, and at its forward end 35 it is received in the recess 36 on the top of the cover element B.

Below the front end 35 of the plate 33 is the gasket 37 and above the plate is the inturned flange 38 of the back element 39 of the wooden handle piece 40.

The bolt 41 extends through the flange 38, the element 35 and the gasket 37 and through the opening 42 molded in the glass cover element B, the lower end of the bolt 41 is screwed into a tapped socket in the boss 44 projecting upwardly from the interior floor 20 of the base A.

In assembling the recess 17 may be conveniently placed over the boss 44, as shown in Figure 5, and then the cover B may be slid into position until the lip 14 of the base A fits into the recess 15 of the cover B.

Then the flange 31 of the connecter D may be attached by the screws 32. Finally, the cover B and the plates 35 and handle C may be bolted in position by the bolt 42.

The gasket 37 will take up tightening of the bolt 41 without straining the glass B.

The mica gasket or insulating layer 19 will prevent direct contact between the heating coil 22 and the base A, while at the same time permitting the heater coil 22 to be visible from the top of the cover B.

It is obvious that the glass top may be assembled with the base A in other manners than shown, and if desired, the base B may be made of Pyrex glass or some other heat resistant glass.

It is also possible to make the cover B partly of glass, instead of entirely of glass as shown, so long as the heating coil 22 is visible from the top of the device. For example, the base could be provided with a metallic extension extending over the top and rear of the base A and carrying the handle C and the connections D, which metallic extension upon being bolted in position bolt 41 would hold a glass periphery in position exposing the heating coil 22.

In the embodiment of Figures 8 to 11, similarly functioning parts to those shown in Figures 1 to 7 are indicated by the same numerals primed.

In Figure 8, it will be noted that the lower edge 15' of the glass cover is not recessed and that the adjacent lip 14' of the bottom A' has a substantially sharper inturned angle, as indicated at 60 in Figure 10.

The adjacent edge 61 of the glass cover B' is turned slightly outwardly at an angle varying between 10 and 30 degrees with a preferred angle of 20 degrees.

The foot portion 18' of the glass cover B' is provided with a series of recesses 62 which extend inwardly from the channel 20' to the hollow 17' in the interior of the iron.

These channels 62 permit circulation of hot air from the heating coil 22' into the hollow space 17' where such heat will effectively elevate a temperature of the bottom 13' of the iron.

In the construction of Figures 8 to 11, the transparent top B' is not held in position by the bolt 41', but solely by the connection between the lip 14' and the upwardly bevelled edge 15'.

The boss 43' which receives the bolt 41' is inclined upwardly and rearwardly and a spacer sleeve 63 is provided upon which the inturned portion 38' is clamped.

The flange portion 38' of the handle extension 39' fits into the recess 42' in the top of the cover B'. The portion 39' of the handle is provided with a recess 64, which receives the parallel hooks 65 which hooks extend away from the enclosure 27', into which a plug, not shown, may be inserted.

The enclosure 29' is mounted directly upon the top of the glass cover B' and the lead-in wires 23' extend downwardly through the recess 66 in the glass top, said recess 66 together with the recess 42' constituting a T-shaped slot, as shown in Figure 11.

From the enclosure 27' extends the bent metal plate 28', 29' which is provided with two downturned ears 31' screwed into position, as indicated at 32', said screws may extend into bosses 67 extending upwardly from the floor 20 of the base A' and fitting into the recesses 97 in the cover B'.

The connection 24' is supported upon a plate 68 which is riveted at 69 to the plate 28'.

If desired, an extension 70 may be provided from the holder 27' to support the iron construction in upright position with the base A substantially vertical when not in use.

The embodiment of Figures 8 to 11 shows a light weight glass cover B' firmly held in position by the lip 14' and shows the handle C' devoid of all connection in respect to the glass cover B'.

Moreover, the construction of the glass top B' with the heat conveying channels 62 permits an intensification of the heat effect in the holder space 17' which is communicated to the base 13'.

It is apparent that the specific illustrations shown above have been given by way of illustration and not by way of limitation and that the structures above described are subject to wide variation and modification without departing from the scope or intent of the invention, all of which variations and modifications are to be included within the scope of the present invention.

What is claimed is:

1. An electrical heating iron provided with a relatively flat metallic base with a peripheral inturned lip and a glass cover held in position by said lip to expose the electrical heating coil thereof.

2. An electrical heating iron provided with a metallic base, a handle, an electrical connection, a heating element and a one piece domed heat resistant glass top to expose the heating element.

3. An electrical heating iron comprising an iron base, a heating resistance coil to heat said base, a cover for said base and heating coil, a handle and an electrical plug connection, said cover consisting of a one piece domed heat resistant glass top for permitting observation of said heating coil.

4. An electrical heating iron comprising an iron base, a heating resistance coil to heat said base, a cover for said base and heating coil, a handle and an electrical plug connection, said cover consisting of a one piece domed heat resistant glass top for permitting observation of said heating coil, said cover having a peripheral groove in its base receiving said coil, said handle and said electrical plug connection being bolted both to said base, said base being provided with an inturned peripheral lip around the sides and front thereof which will engage the cover when it is moved into position from the rear of the base, and said plug having a guard attached to said handle, a portion of which guard is posi-

tioned at the rear of base and cover to prevent the cover from moving out of position on the base.

5. An electrical heating iron comprising an iron base, a heating resistance coil to heat said base, a cover for said base and heating coil, a handle and an electrical plug connection, said cover consisting of a one piece domed heat resistant glass top for permitting observation of said heating coil, said cover having a peripheral groove in its base receiving said coil, said cover having a central recess in the bottom portion thereof and said base having a tapped boss on the interior floor thereof, and said base cover handle and connection being connected together by a bolt extending through said cover and screwed into said tapped boss, said base having a peripheral inturned lip at the sides and forward end thereof which will engage the cover when it is moved into position from the rear of the base and said handle being provided with a guard connected to the rear of the base to hold said cover in position on said base.

6. An electrical heating iron comprising an iron base, a heating resistance coil to heat said base, a cover for said base and heating coil, a handle and an electrical plug connection, said cover consisting of a one piece domed heat resistant glass top for permitting observation of said heating coil, said cover having a peripheral groove in its base receiving said coil, said base being provided with an exterior peripheral lip and said cover being provided with an exterior peripheral recess, said lip fitting into said recess to form a close connection between the cover and the base, said handle and connection being provided with a mount detachably secured to the rear of said base to prevent said cover from sliding out of engagement with said lip.

7. An electrical heating iron comprising an iron base, a heating resistance coil to heat said base, a cover for said base and heating coil, a handle and an electrical plug connection, said cover consisting of a one piece domed heat-resistant glass top for permitting observation of said heating coil, said cover having a peripheral groove on the bottom face thereof, said coil being carried in said peripheral groove, the interior wall of said groove being provided with a series of air passages to permit circulation of air between said groove and the interior of said cover and said base being provided with an insulating liner to prevent said coil from contacting with the base.

8. An electric heating iron comprising an iron base, a heating resistance coil, a heat resistant glass cover, a handle and an electrical plug connection to said coil, said base being provided with a peripheral inturned lip at its sides and forward end and said glass cover being provided with a peripheral recess to engage said lip and said plug having a guard attached to said handle, a portion of which guard is positioned at the rear of the base and cover to prevent the cover from moving out of position on the base.

9. An electric heating iron comprising an iron base, a heating resistance coil, a heat resistant glass cover, a handle and an electrical plug connection to said coil, said cover being provided with a peripheral groove at its lower surface receiving a heating resistance coil, and said base being provided with a mica liner to prevent said coil from contacting with said base, said base being provided with a peripheral inturned lip at its sides and forward end and said glass cover being provided with a peripheral recess to engage said lip and said plug having a guard attached to said handle, a portion of which guard is positioned at the rear of the base and cover to prevent the cover from moving out of position on the base.

GERHARDT BLAIR.