Aug. 19, 1952 L. H. SNYDER ET AL 2,607,139

ELECTRIC IRON ASSEMBLY MEANS

Filed May 31, 1946 4 Sheets-Sheet 1

Fig-1

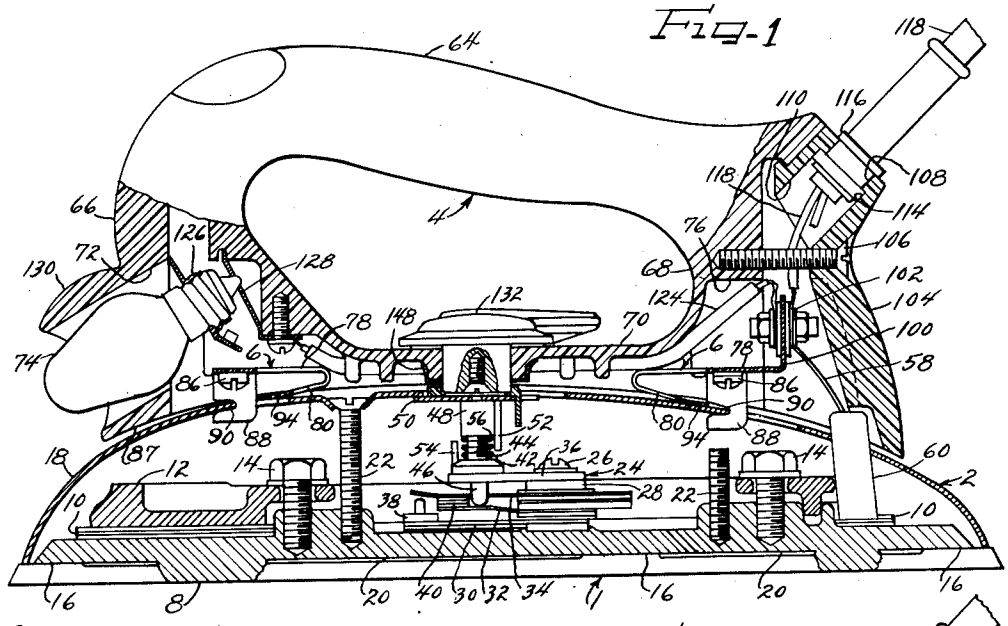
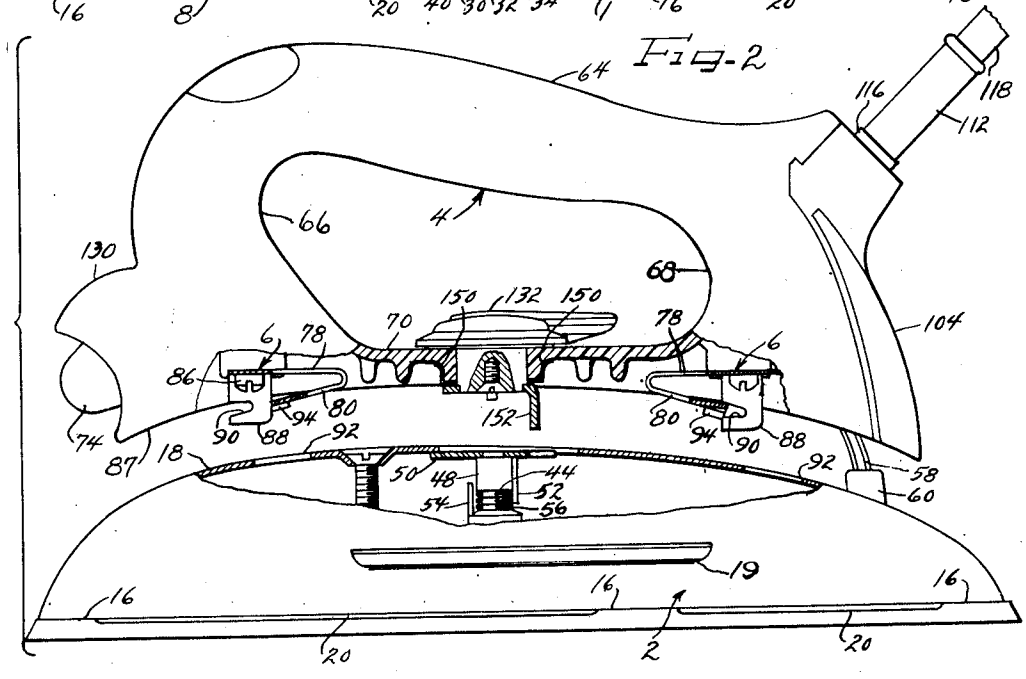


Fig-2



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ELECTRIC IRON ASSEMBLY MEANS

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Fig. 3

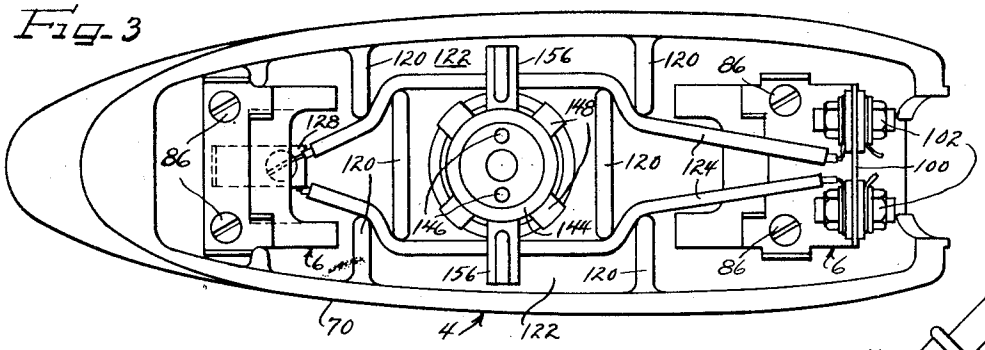


Fig. 4

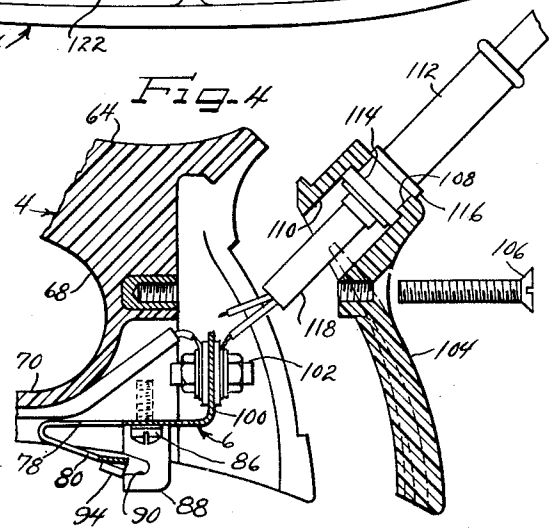


Fig. 7

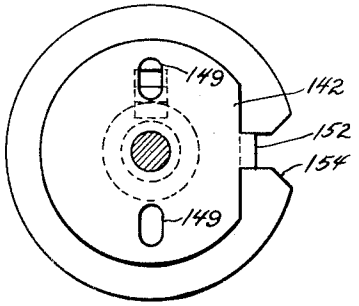


Fig. 6

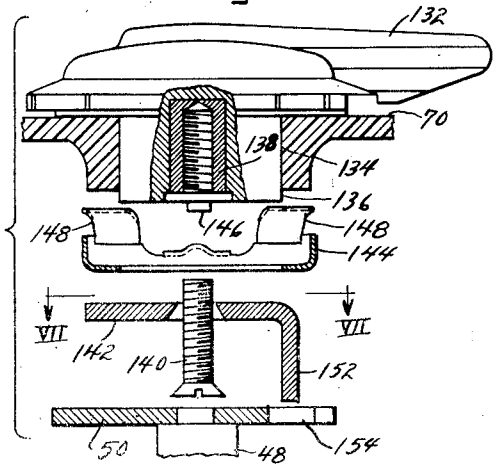
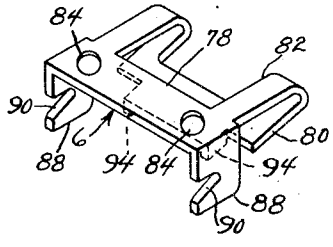


Fig. 5



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ELECTRIC IRON ASSEMBLY MEANS

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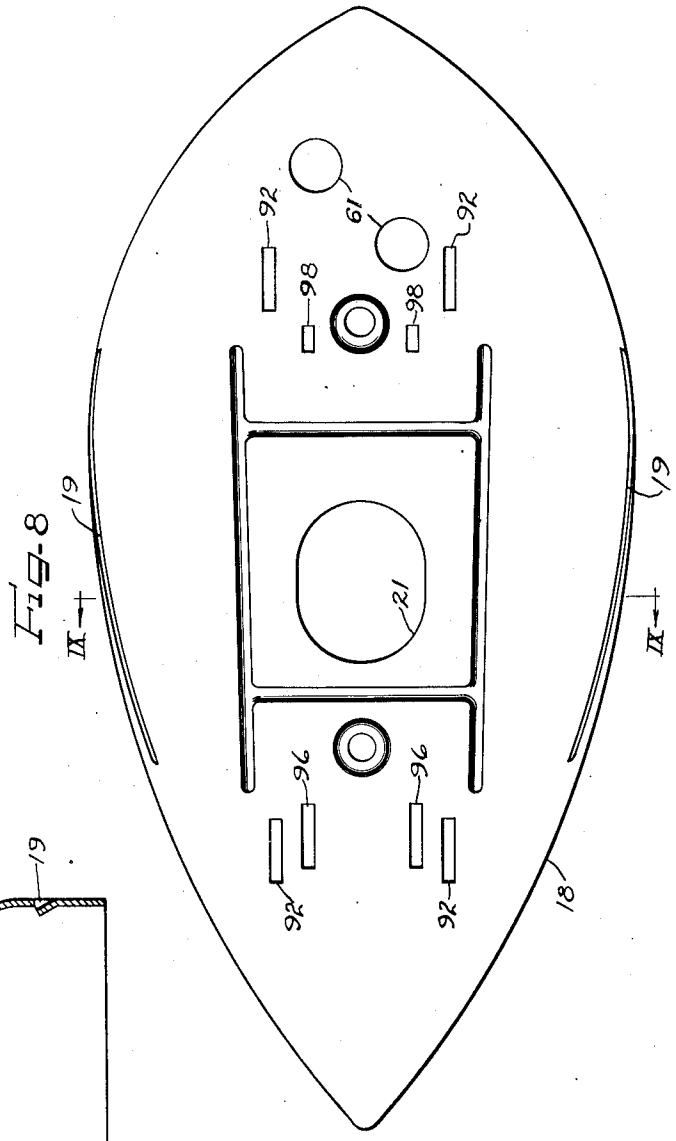


Fig-8

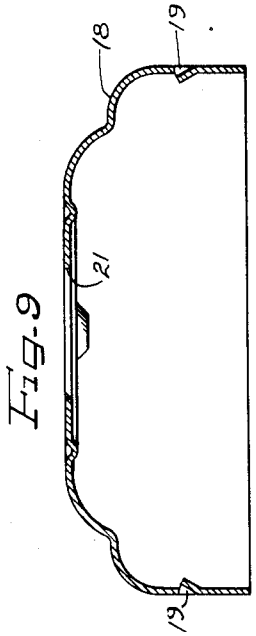


Fig-9

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ELECTRIC IRON ASSEMBLY MEANS

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Fig-10

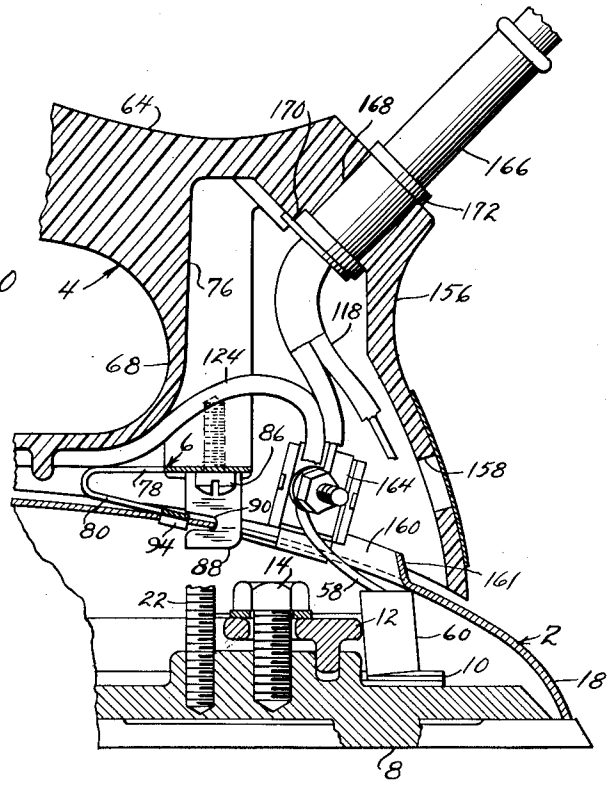
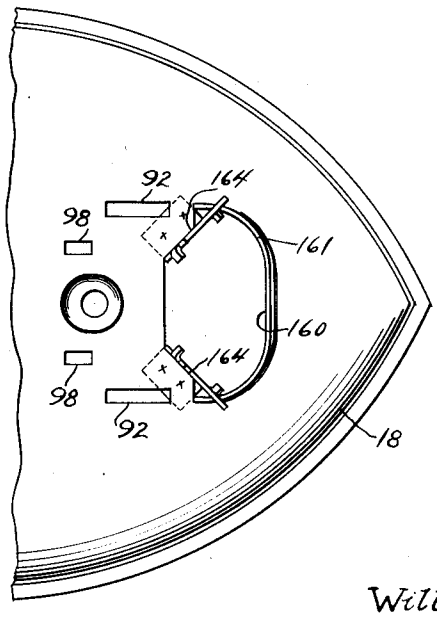


Fig-11



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Patented Aug. 19, 1952

2,607,139

UNITED STATES PATENT OFFICE

2,607,139

ELECTRIC IRON ASSEMBLY MEANS

Leland H. Snyder and Willis E. Shipley, Chicago, Ill., assignors, by mesne assignments, to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware

Application May 31, 1946, Serial No. 673,453

13 Claims. (Cl. 38—92)

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This invention relates to an electric iron.

In the copending application of Leland H. Snyder, Serial No. 565,610, filed November 29, 1944, which has issued as Patent No. 2,436,943 on March 2, 1948, there is disclosed and claimed an electric iron construction wherein the handle portion of the iron is resiliently supported with respect to the shell portion. This invention provides a further improvement over the construction of our copending application in that integrally formed means are provided on the spring element which resiliently supports the handle relative to the shell portion of the iron by which the spring element also accomplishes the locking of the handle to the shell portion.

A further feature of this invention lies in the mounting of the control knob for the adjustable thermostat at the iron upon the base portion of a generally loop-shaped handle and the provision of a detachable connection between such control knob and the adjustable thermostat disposed which is automatically engageable and disengageable respectively upon the assembly and disassembly of the handle to the shell portion.

A further feature of this invention is the provision of an improved arrangement for retaining the control knob in position upon an apertured wall of the iron structure. In accordance with this invention, a disk-like retaining member is secured to a shank portion of the control knob on the opposite side of the apertured wall from the knob and a plurality of resilient fingers on such retaining disk are provided which cooperate with the apertured wall to resiliently urge the control knob toward abutting relationship with the apertured wall.

A further feature of this invention lies in the provision of a generally loop-shaped handle for an electric iron wherein the underside of the base portion of the handle is provided with a pair of channels in which electrical conductors are mounted and such channels are respectively disposed on opposite sides of a vertical aperture in such base portion in which the control knob of the iron is journaled. A single retaining member is secured to the control knob on the under side of the base portion of the handle and a plurality of fingers projecting radially outward from such retaining member not only impart an axial bias to the control knob to hold it in abutting relationship with the base portion of the handle but in addition extend across the channels defined in the base portion of the handle and act to retain the electrical conductors within such channels.

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Accordingly, it is an object of this invention to provide an improved electric iron.

A further object of this invention is to provide an improved electric iron construction wherein the handle is resiliently supported in overlying relationship to the shell portion of the iron.

A particular object of this invention is to provide an improved resilient member for supporting a handle relative to the exterior of a cooperating casing, such as the shell portion of an iron, being characterized by the provision of integrally formed means thereon for effecting the locking of the handle to the cooperating casing to prevent the accidental disassembly thereof.

A further object of this invention is to provide an improved mounting arrangement for the control knob of an electric iron by which the control knob is resiliently held in abutting relationship with the apertured wall of the iron on which it is mounted.

Another object of this invention is to provide an improved detachable connection between the control knob and an adjustable thermostat of an electric iron wherein the control knob is mounted on a handle which is detachable from the shell portion of the iron in which the adjustable thermostat is mounted.

A particular object of this invention is to provide an improved resilient coupling member for resiliently supporting the handle of an electric iron relative to the shell portion wherein the coupling member also defines an electrical terminal mounting block for the lead-in wires of the electric iron.

Another particular object of this invention is to provide an improved electric iron construction wherein the handle of the iron is secured to the shell portion by a resilient lock which is disposed substantially within a recessed portion of the handle and an opening is provided in a wall of such recess permitting the resilient locking member to be engaged by a suitable tool to effect the disassembly of the handle from the shell portion.

The specific nature of the invention as well as other objects and advantages thereof will become apparent to those skilled in the art from the following detailed description of the annexed sheets of drawings which, by way of preferred example only, illustrate two specific embodiments of the invention.

On the drawings:

Figure 1 is a vertical sectional view, partly in elevation, of an electric iron embodying one

modification of this invention, shown with the handle unit assembled to the shell portion of the iron;

Figure 2 is an elevational view, partly in section, of the iron of Figure 1, shown with the handle unit disposed in disassembled relationship with respect to the shell portion of the iron;

Figure 3 is a bottom elevational view of the handle unit;

Figure 4 is a partial, vertical sectional view of the rear pedestal portion of the handle unit of the iron of Figure 1, showing the closure member for the rear pedestal recess in disassembled relation;

Figure 5 is a perspective view of the front resilient member which resiliently supports and secures the handle unit to the shell portion;

Figure 6 is an exploded view of the thermostat control knob assembly elements;

Figure 7 is a partial sectional view taken on the plane VII—VII of Figure 6.

Figure 8 is a top elevational view of the shell casing;

Figure 9 is a sectional view taken on the plane IX—IX of Figure 8;

Figure 10 is a partial vertical sectional view of the rear portion of an electric iron illustrating a modification of this invention; and

Figure 11 is a top elevational view of the rear portion of the iron shell constructed in accordance with the modification of Figure 10.

As shown on the drawings:

Referring to Figure 1, an electric iron embodying this invention is indicated generally by the numeral 1. The iron comprises a shell unit 2 and a handle unit 4 which are individually preassembled and then assembled into a unitary iron construction by operation of the resilient coupling members 6, as will be described in more detail later.

The shell unit 2 comprises a sole plate 8 of conventional configuration upon which is supported an electric heating element 10, which is pressed into intimate heat conducting relationship with sole plate 8 by a pressure pad 12. Suitable bolts 14 secure pressure pad 12 to sole plate 8.

At spaced points around the periphery of sole plate 8 there are provided upstanding ribs 16. A shell casing 18 is disposed on top of the sole plate 8, the bottom edge of casing 18 resting upon the ribs 16 and thus defining a plurality of air inlet passages 20 around the periphery of casing 18. In addition, a longitudinal air opening 19 is provided in each side of casing 18. Casing 18 is secured to sole plate 8 by one or more screws 22.

A thermostat unit 24 is secured to the central portion of sole plate 8 by a screw 26. Thermostat unit 24 may comprise any one of several well known forms of thermostatic units which are adjustable by a rotative movement, and for purposes of example, is shown as comprising a hollow bushing member 28 surrounding the screw 26 and upon which are stacked successively a bimetallic strip 30, an adjustable spring leaf 32, a cooperating spring leaf 34, and an adjusting mechanism support bracket 36. The one end of the bimetallic strip 30 is thus rigidly secured and disposed in good heat conducting relationship with the central portion of the sole plate 8. The other end of bimetal strip 30 is therefore free to flex in response to temperature changes of the sole plate 8 and carries thereon an upstanding insulating button 38 which moves upwardly into engagement with the overhanging end of the cooperating leaf spring element 34 as the temperature of the sole plate 8 increases. Contacts 40 are respectively provided in opposed relationship on adjustable spring leaf 32 and cooperating spring leaf 34. The spring tension of these leaf members is such that the contacts 40 are normally maintained in a closed position as shown, except when the bimetal strip 30 urges the cooperating leaf spring 34 upwardly.

The adjusting mechanism by which the vertical position of the free end of the adjustable leaf spring 32 is controlled comprises a support nut 42 which is rigidly secured on the top surface of support bracket 36. An adjusting screw 44 is threaded through support nut 42 and at the lower end thereof has secured thereto an insulating button 46 which contacts the free end of adjustable spring leaf 32 to urge such leaf downwardly as the adjusting screw 44 is threaded downward through the support nut 42. The adjusting screw 44 is provided with an enlarged head portion 48 and on the top surface of the head portion 48 a coupling disk 50 is rigidly secured which, as will be described, provides driving connection between the adjusting screw 44 and the manually operated control knob 132 which is supported in the central portion of handle unit 4. A depending stop lug 52 secured to head portion 48 cooperates with an upstanding stop lug 54 provided on support nut 42 to limit the rotative movement of adjusting screw 44 to less than one complete revolution. A spring 56 is provided in surrounding relationship to screw 44 and operates between head portion 48 and support nut 42 to maintain a constant axial bias on adjusting screw 44 to eliminate any back lash in the helical movement thereof.

The contacts 40 of adjustable thermostat 24 are connected in series circuit with the heating element 10 in conventional manner by suitable wiring (not shown). The supply wires 58 for the heating element are led to the exterior of casing 18 through suitable insulating bushings 60 which are supported on sole plate 8 and project upwardly through suitable apertures 61 in the top surface of shell casing 18.

The handle unit 4 comprises a handle member which may be conveniently molded from a suitable heat and electrically insulating material and is of generally loop-shaped configuration having a handle portion 64 by which the iron may be grasped, front and rear pedestal portions 66 and 68 respectively and a base or web portion 70 connecting between the front and rear pedestal portions. Front pedestal portion 66 is provided with a recess 72 in which is housed a light 74 and the front coupling member 6, while rear pedestal portion 68 is provided with a recess 76 in which are accommodated the terminal connections for the lead-in wires and the rear coupling member 6.

As was heretofore stated, the front and rear coupling members 6 function to secure handle unit 4 to shell unit 2 in spaced, spring pressed relationship thereto. That is, the handle unit 4 is supported in spaced relationship above the top surface of shell unit 2 and is resiliently urged upwardly by coupling members 6 to provide a yielding resistance to downward pressure imparted to the iron by the operator. So far as their resilient support and securing functions are concerned, the front and rear coupling members 6 are identical and both may be described by the following description of the front coupling member illustrated specifically in Figure 5.

The coupling member 6 is of generally U-shaped configuration having an upper arm portion 78 and a lower arm portion 80. To increase the flexibility of the U-shaped loop thus formed, the central portion of each of the arms of the loop may be cut away as indicated at 82. A pair of holes 84 are provided in spaced relationship in the front portion of upper arm 78 and screws 86 pass through the holes 84 to secure the coupling members to the handle. In their secured position, the front and rear coupling members lie respectively in the recesses 72 and 76 of the front and rear pedestal portions 66 and 68 of the handle and the upper arm portions 78 of the coupling members are disposed in generally horizontal position, while the lower arms 80 are disposed in depending relation to upper arms 78 and project somewhat below the bottom surface 87 of the handle 64. It should be noted that the bottom surface 87 of handle 64 is of arcuate shape generally conforming with the top surface of shell casing 18. Thus when the handle unit 4 is placed in overlying relationship on shell unit 2, the lower arms 80 engage the top surface of shell casing 18.

At each side of the upper arm portion 78 of the coupling member 6, there is provided an integrally formed, downwardly depending latching projection 88. Each of the latching projections 88 in turn is provided with a forwardly opening latching notch 90. The shell casing 18 is provided with a plurality of slot-like apertures 92 (Figs. 2 and 8) in its top surface which will respectively receive the latching projections 88 as the handle unit 4 is brought downwardly on the shell unit 2 at a position somewhat to the rear of the final assembled position of the handle unit 4 on the shell unit 2. Hence, when the handle unit 4 is moved forwardly relative to the shell unit 2 to its final assembled position, the latching notches 90 on the latching projection 88 will surround the forward end walls of the slot-like apertures 92 in the shell casing 18 as shown in Figure 1 and hence permit only a limited vertical movement of the handle unit 4 with respect to the shell unit 2. In such position, the lower arm 80 of coupling member 6 is of course in engagement with the top surface of shell casing 18 and the loop of the coupling member is compressed; hence, the handle unit is normally urged upwardly by the coupling member 6 to the extreme vertical position permitted by the engagement of the bottom surfaces of the latching notches 90 with the inside face of the shell casing 18.

From the construction thus far described it is apparent that the handle unit 4 is resiliently supported and secured to the shell unit 2; however, the handle unit 4 is immediately detachable from the shell unit 2 by a rearward movement of the handle unit 4 relative to the shell unit which brings the latching notches 90 out of engagement with the adjacent end wall portion of the apertures 92. To prevent such transverse movement of the handle unit 4 relative to the shell unit 2 and to provide a resilient lock securing the handle unit 4 to the shell unit 2, the lower arm 80 of the coupling member 6 is provided with a pair of depending locking projections 94. The locking projections 94 of the front coupling member 6 project down into slot-like apertures 96 (Fig. 8) provided in the top surface of the shell casing 18. The apertures 96 are, however, of suitable length to permit the same degree of transverse movement of the locking projections 94 therein as is permitted the latching projections within the apertures 92. A pair of apertures 98 (Figs. 8 and 11) are provided in the rear portion of the top surface of the shell casing 18 to receive the locking projections 94 of the rear coupling member 6 and the rear apertures 98 are of substantially the same length as the locking projections 94. Hence when locking projections 94 of rear coupling are engaged therein, substantially no transverse movement of the handle unit 4 relative to the shell unit 2 is possible. The rear apertures 98 are suitably located on shell casing 18 so that the locking projections 94 of the rear coupling member 6 snap into engagement with the rear apertures 98 when the handle unit 4 is assembled to the shell unit 2 and moved forwardly to its proper position relative thereto. Once the locking projections 94 have snapped into engagement with the rear apertures 98, it is impossible for the handle unit 4 to be accidently or inadvertently disassembled from the shell unit 2. Yet limited spring pressed vertical movement of the handle unit 4 relative to the shell unit 2 is unimpaired. To disassemble the handle unit 4 from the shell unit 2 it is necessary to pry the locking projections 94 of the rear coupling member 6 upwardly out of engagement with the rear apertures 98, whereupon a rearward movement of the handle unit 4 relative to the shell unit 2 will disengage the latching projection 88 from the shell casing 18.

It should of course be understood that the described arrangement wherein the locking projections 94 on the rear coupling member 6 are effective to prevent transverse movement of the handle unit 4 relative to the shell unit 2 is merely the preferred arrangement. Obviously the locking projections 94 on the front coupling member 6 may perform the same function by reducing the size of the front apertures 96 in which they are engaged.

As a further feature of this invention, the rear coupling member 6 may have its upper arm portion 78 (Figs. 1 and 4) extended beyond the screw hole 84 and bent upwardly to extend further into the recess 76 of the rear pedestal portion 68 of the handle. This extension portion 100 may be conveniently utilized as a mounting plate for supporting the electrical terminals 102 of the iron. In the modification of Figure 1, the recess 76 is open at the back side of rear pedestal portion 68 and the recess 76 may then be enclosed by a separately molded closure 104 which is secured to the rear pedestal portion 68 by a suitable screw 106.

To provide a flexible attachment of the power supply cord to the electric iron, the closure member 104 is provided with a hole 108 extending therethrough which is counterbored as indicated 110 in the end opening into the recess 76. A hollow bushing 112 of rubber or rubber-like material is then inserted in the hole 108 and is provided with a shoulder portion 114 which bottoms against the base of counterbore 110. A second shoulder porton 116 is provided on bushing 112 spaced from the shoulder 114 a distance substantially equal to the depth of the hole 108. Shoulder 116 is of slightly larger diameter than the hole 108 so that the rubber-like material of bushing 112 must be forcibly compressed to insert the bushing 112 into the hole 108; however, when once assembled, the shoulder 116 acts as a retaining shoulder to secure the bushing 112 in assembled relation in the closure 104. The power supply wires 118 pass through the bushing 112

in conventional manner and are secured to the terminals 102 to supply power to the electrical element of the iron.

From the construction thus far described, it will be apparent that an iron embodying this invention permits convenient access to the electrical terminals and hence permits the replacement of a worn cord in the iron inasmuch as all that is required is the removal of the closure member 104 by unscrewing screw 106. It is further apparent that the removal of closure member 104 from its assembled position on the handle unit 4 exposes the locking projections 94 on the rear coupling member 6 and permits a suitable tool, such as a screwdriver blade, to be slipped under the lower arm 80 of the rear coupling member 6 so that the locking projections 94 of the rear coupling member 6 may be pried upwardly out of the rear apertures 98. Thus the iron may be conveniently separated into the handle unit and the shell unit for repair purposes.

It has been heretofore mentioned that a suitable light 74 is mounted in the recess 72 provided in the front pedestal portion 66 of the handle. As more clearly shown in Figure 3, the under side of the base or web portion 70 of the handle 62 is provided with suitable integrally formed ribs 120 which define depressed channels 122 to respectively accommodate a pair of wires 124 which supply power to the light 74 from the terminals 102. A screw type socket 126 and a contact plate 128 are suitably mounted within the recess 72 to support and provide electrical connection with the light 74. The front pedestal portion 66 is provided with a forwardly projecting annular reflector portion 130 which surrounds the light 74 protecting it from accidental blows and focusing the light rays therefrom into a beam directed onto the surface being ironed.

As was heretofore mentioned, the manual control knob 132 for the adjustable thermostat 24 is mounted in the base portion 70 of the handle 62. A vertical aperture 134 (Fig. 6) is provided in such base portion and rotatably journals an integrally formed shank portion 136 of the knob 132. An internally threaded bushing 138 is mounted in the shank portion 136 and opens on the bottom side of the base or web portion 70. The bushing 138 receives a headed screw 140, and, as more clearly shown in Figure 6, the screw 140 passes through central apertures in a coupling plate 142 and a retainer disk 144, securing such elements to the control knob 132. The central portion of the retainer disk 144 is cut away and a plurality of integrally formed depending nibs 146 provided on the bottom face of shank portion 136 projects through such cut away central portion of the retainer disk and engage in complementary formed holes 149 (Figure 7) provided in the top surface of coupling plate 142. It is thereby assured that coupling plate 142 will rotate with the control knob 132.

Since the handle is most conveniently formed as a molded component, it is generally found that in quantity production of this component that the thickness of the web or base portion 70 of the handle varies considerably between individual units. The control knob 132 is also most conveniently formed as a molded component and likewise the dimensions of the length of the shank portion of the control knob varies considerably in large quantity production.

To compensate for such production variations and to take up any accumulated tolerances, the retainer disk 144 is provided with a plurality of peripherally spaced, generally radially projecting arms 148 which resiliently engage suitably inclined surfaces 159 (Fig. 2) provided in the base portion 70 around the vertical aperture 134. The spring arms 148 thus exert an axial bias upon control knob 132 urging such knob into abutting relationship with the top surface of the base or web portion 70 of the handle.

Since the adjustable thermostat 24 is fixedly mounted within the shell unit 2, it is necessary to provide a detachable connection between the adjustable thermostat 24 and the manual control knob 132. Such connection is provided by the cooperation of a downwardly depending finger 152 which is integrally formed on coupling plate 142 with a suitable slot 154 provided in the periphery of connecting disk 50. Such detachable connection also provides protection for the thermostat against chance blows which the knob 132 might receive. Hence proper adjustment of thermostat 24 will be maintained even though the iron is subjected to rough usage. Furthermore, the concentricity requirements between thermostat 24 and knob 132 are minimized.

The top surface of casing 18 is provided with an oval-shaped aperture 21, the front end of which overlies connecting disk 50. Hence clearance is provided for the forward movement of coupling plate 142 in aperture 21 which accompanies assembly of handle unit 4 on shell unit 2.

The retainer disk 144 may be conveniently utilized to perform an additional function. A pair of oppositely disposed, radially projecting retainer arms 156 (Fig. 3) are integrally formed on such disk and, in the assembled position of the retainer disk on the base portion 70 of the handle, project across each of the channels 122 and hence function to retain the wires 124 within such channels.

It will be noted from Fig. 9 that the shape of shell casing 18 is such as to permit the iron to rest on its side, supported by the handle and the top edge of casing 18 between ironing operations. The air inlets 19 and 20 maintain the top portion of the casing cool.

In Figures 10 and 11 there is disclosed a modified form of iron construction embodying this invention in which the handle may be completely formed in one piece. In this construction, the rear pedestal portion 68 of the handle is again provided with a recess 76 in which is mounted the rear coupling member 6. However, in this construction, the rear wall of the recess 76 is not open but is completely enclosed by a wall 156 which is integrally formed with the handle 62. To permit access to the rear coupling member 6 in order to effect the disassembly of the handle unit 4 from the shell unit 2, the rear wall 156 is provided with a small opening 158 through which a suitable tool, such as a screwdriver blade, may be inserted to pry the lower arm 80 of the rear coupling member 6 upwardly to release the locking projection 94 from engagement with the rear casing apertures 98 (Fig. 11). The access hole 158 is preferably normally closed by a plate 160 which is suitably secured to rear wall 156. The plate 160 may conveniently comprise the name plate for the electric iron.

In the modification of Figures 10 and 11, it is apparent that the enclosing of the rear wall of the rear pedestal portion 68 would render the connection of the lead-in wires to the terminal strip very difficult if such terminal strip were the same as that utilized in the modification of Figure 1. Accordingly, to facilitate the electrical connections during assembly of the iron, in the modi-

fication of Figures 10 and 11 the shell casing 18 has a portion of the top surface thereof punched out to define an opening 160 and the side walls 161 struck up in generally upstanding relation. A pair of generally L-shaped terminal members 164 are then welded to the top of casing 18 in spaced relationship on opposite sides of the opening 160. The power supply wires are brought into the interior of recess 76 through a hollow rubber-like bushing 166 which is mounted in a hole 168 provided in the wall of the rear pedestal portion 68 at a point near the top thereof. Shoulders 170 and 172 are provided on bushing 166 to retain bushing 166 within the hole 168 in the same manner as heretofore described in connection with the modification of Figure 1. The power supply leads 118, the electric light leads 124 and the heating element and thermostat leads 58 are suitably interconnected on the terminal strips 164.

It will, of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention, and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

We claim as our invention:

1. In an electric iron having a body portion, and a handle unit, the improvements of a resilient coupling for detachably securing said handle unit to said base portion in relatively movable, spring pressed relationship thereto comprising a resilient member formed from a single strip of sheet material and having an integrally formed first portion secured to said handle unit, an integrally formed flexible second portion engageable with said body portion to resiliently urge said handle unit toward a spaced apart relationship with said body portion, and an integrally formed third portion extending from said first portion in separate spaced relation to said second portion and engageable with said body portion in latching relation thereto to secure said handle unit to said body portion against the bias exerted by said second portion.

2. In an electric iron having a body portion, and a handle unit, the improvements of a resilient coupling for detachably securing said handle unit to said base portion in relatively movable, spring pressed relationship thereto comprising a resilient member formed from a single strip of sheet material and having an integrally formed first portion secured to said handle unit, an integrally formed spring-acting second portion engaging said body portion to resiliently urge said handle unit to a spaced apart relationship with respect to said body portion, an integrally formed third portion extending from said first portion in separate spaced relation to said second portion and engageable with said body portion in latching relation thereto to secure said handle unit to said body portion against the bias exerted by said second portion, and an integrally formed fourth portion extending from said second portion to engage said body portion in locking relation thereto to prevent movement of said handle unit relative to said body portion.

3. In an electric iron, a shell portion, said shell portion having an aperture therein, a handle unit, a resilient coupling member formed of a single strip of sheet material and having an integrally formed first portion thereof rigidly secured to said handle unit, an integrally formed spring-acting second portion projecting laterally from said first portion and engaging said shell portion to urge said handle unit toward a spaced apart relationship with respect to said shell portion, and an integrally formed third portion extending from said first portion in separate spaced relation to said second portion and projecting through said aperture in said shell portion, said third portion having a notch engageable with the interior face of said shell portion to secure said handle unit to said shell portion against the bias exerted by said second portion.

4. In an electric iron, a shell portion, said shell portion having an aperture in its top surface, a handle unit having an exterior surface thereof conforming generally to the configuration of the top wall of said shell portion, a resilient coupling member formed of a single strip of sheet material and having an integrally formed first portion secured to said handle unit, an integrally formed flexible second portion projecting laterally from said first portion and in depending relationship thereto for engaging said shell portion to resiliently urge said handle unit toward a spaced apart relationship with respect to said shell portion, and an integrally formed third portion extending from said first portion in separate spaced relation to said second portion and projecting through said aperture in said shell portion and engageable with the interior face of said shell portion to secure said handle unit to said shell portion against the bias exerted by said second portion and with said exterior surface of said handle disposed in spaced relation above said shell portion.

5. In an electric iron, a shell portion, said shell portion having first and second apertures in its top surface, a handle unit, a resilient coupling member formed of a single strip of sheet material having an integrally formed first portion secured to said handle unit, an integrally formed spring-acting second portion projecting outwardly from said handle unit and engaging said shell portion to resiliently urge said handle unit toward a spaced apart relationship with respect to said shell portion, an integrally formed third portion projecting through said first aperture in the shell portion and engageable with the interior face of said shell portion to secure said handle unit to said shell portion against the bias exerted by said second portion, and an integrally formed fourth portion projecting into said second aperture in said shell portion to limit movement of said coupling member relative to said shell portion in a direction to disengage said third portion from said shell portion.

6. In an electric iron, a shell portion, said shell portion having an aperture therein, a handle unit, a coupling member formed of a single strip of sheet material and comprising a generally U-shaped resilient loop having an integrally formed one arm portion secured to said handle unit, the other integrally formed arm portion extending laterally from said one arm portion and engaging said shell portion to resiliently urge said handle unit toward a spaced apart relationship with respect to said shell portion, an integrally formed latching projection on said one arm portion projecting through said aperture in said shell portion to engage the interior face of said shell portion in latching relation, thereby securing said handle unit to said shell portion against the bias exerted by said loop.

7. In an electric iron, a shell portion, said shell portion having a first and second aperture in its top surface, a handle unit, a coupling member formed of a single strip of sheet material comprising a generally U-shaped resilient loop hav-

ing one integrally formed arm portion secured to said handle unit, the other integrally formed flexible arm portion extending laterally from said first portion and engaging said shell portion to resiliently urge said handle unit toward a spaced apart relationship with respect to said shell portion, an integrally formed latching projection on said one arm portion extending into said first aperture in said shell portion to engage the inner face of said shell portion in latching relation, thereby securing said handle unit to said shell portion against the bias exerted by said other arm portion, said latching projection being constructed and arranged to permit limited movement of said handle unit relative to said shell portion in the direction of the separation of said handle unit and said shell portion, and an integrally formed locking projection on said other arm portion engageable in said second aperture in said shell portion to prevent movement of said handle unit relative to said shell portion in any direction substantially transverse to the separation of said handle unit and said shell portion.

8. In an electric iron having an associated thermostat, a loop-shaped handle having a base portion, upstanding pedestal portions and a handle portion, said base portion having a vertical aperture therein and having at its under side a longitudinally extending channel adapted to receive electrical conductors therein, a thermostat control knob having a shaft portion extending downwardly through said aperture, abutment means secured to the bottom end of said shaft portion, and a member having a body portion seated against said abutment means and having one spring finger element connected at one end with said body portion and having a free end projecting upwardly and engageable with said base portion to resiliently urge said knob downwardly, said retainer member also having another finger element extending from said body portion and disposed in overlying relation to said channel and adapted to retain the electrical conductors therein.

9. In an electric iron having an associated thermostat, a loop-shaped handle having a base portion, upstanding pedestal portions and a handle portion, said base portion having a vertical aperture therein and having at its under side a pair of longitudinally extending channels adapted to receive electrical conductors therein and respectively disposed on opposite sides of said vertical aperture, a thermostat control knob having a shaft portion extending downwardly through said vertical aperture, abutment means secured to the bottom end of said shaft portion, and a retainer member having a body portion seated against said abutment means and a plurality of spring finger elements extending from said body portion and engageable with said base portion to resiliently urge said knob downwardly, said retainer member also having a pair of retaining finger elements extending from said body portion and disposed respectively in overlying relation to said channels and adapted to retain the electrical conductors therein.

10. In an electric iron having a variable element to be controlled, a manual control knob having an integrally formed shank portion, an apertured wall journaling said shank portion, abutment means secured to the end of said shank portion and disposed on the opposite side of said wall from said knob, and a disk-like retaining member having a body portion seated against said abutment means and having a plurality of peripherally spaced, integral spring fingers on said retaining member projecting from said body portion in generally radial relationship and engageable with said wall, thereby resiliently urging said control knob toward abutting relationship with said wall.

11. In an electric iron having a variable element to be controlled, a manual control knob having an integrally formed shank portion, an apertured wall journaling said shank portion, said wall having a pair of channels in its face opposite to said control knob adapted to receive electrical conductors therein, abutment means secured to the end of said shank portion and disposed on the opposite side of said wall from said knob, and a retaining member having a body portion seated against said abutment means and a plurality of peripherally spaced, integral spring fingers projecting from said body portion in generally radial relationship and engageable with said wall, thereby resiliently urging said control knob toward abutting relationship with said wall, said retaining member also having a pair of integral retaining fingers projecting from said body portion in generally radial relationship and respectively overlying said channels and adapted to retain electrical conductors therein.

12. A resilient coupling for detachably securing two members in relatively movable spring-pressed relationship, one member fixedly secured to said coupling and the other member having a pair of spaced slots and a pair of spaced apertures for detachable securement to said coupling, said coupling comprising a generally U-shaped member of resilient material having one leg of longer length than the other, a pair of parallel spaced latching projections on opposite sides near the end of the longer of said legs and spaced in correspondence to said slots, each of said latching projections being integral with said member and extending past the free end of the shorter leg thereof, each of said latching projections having a securing notch provided in a confronting edge thereof, and a pair of projecting prongs on the free end of the shorter of said legs spaced equidistant from the middle of said member and slightly inwardly from the sides thereof and spaced in correspondence to said apertures, said prongs extending in the same direction as said projections but shorter than said projections, whereby when said longer leg of said coupling is fixedly secured to the one of said members and said latching projections are inserted into slots in the other of said members, said members may be secured together by relative movement to cause engagement of the edges of said slots with said securing notches and engagement of said projecting prongs into corresponding receiving apertures in said other of said members.

13. In an electric iron including a thermostat, a handle having an apertured web portion, a thermostat control knob having a shank portion journaled in said web portion, said shank portion having projections depending therefrom for operating said thermostat, an annular retaining member surrounding said shank portion and having spring fingers elements projecting upwardly therefrom to engage with said web portion, and a coupling plate secured to the shank portion to provide an annular seat for bottoming said retaining member, said coupling plate having apertures for receiving therethrough said driving projections, the spring finger elements resiliently urging said coupling plate downwardly relative

to said web portion to urge said control knob toward abutting relation with said web portion.

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