

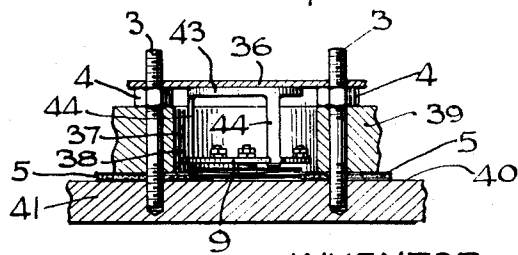
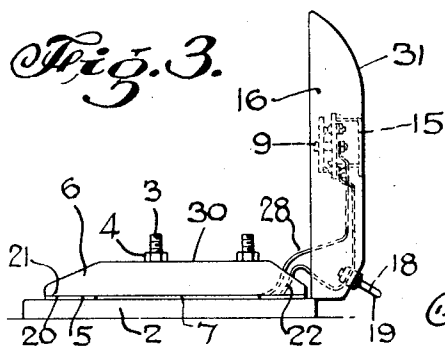
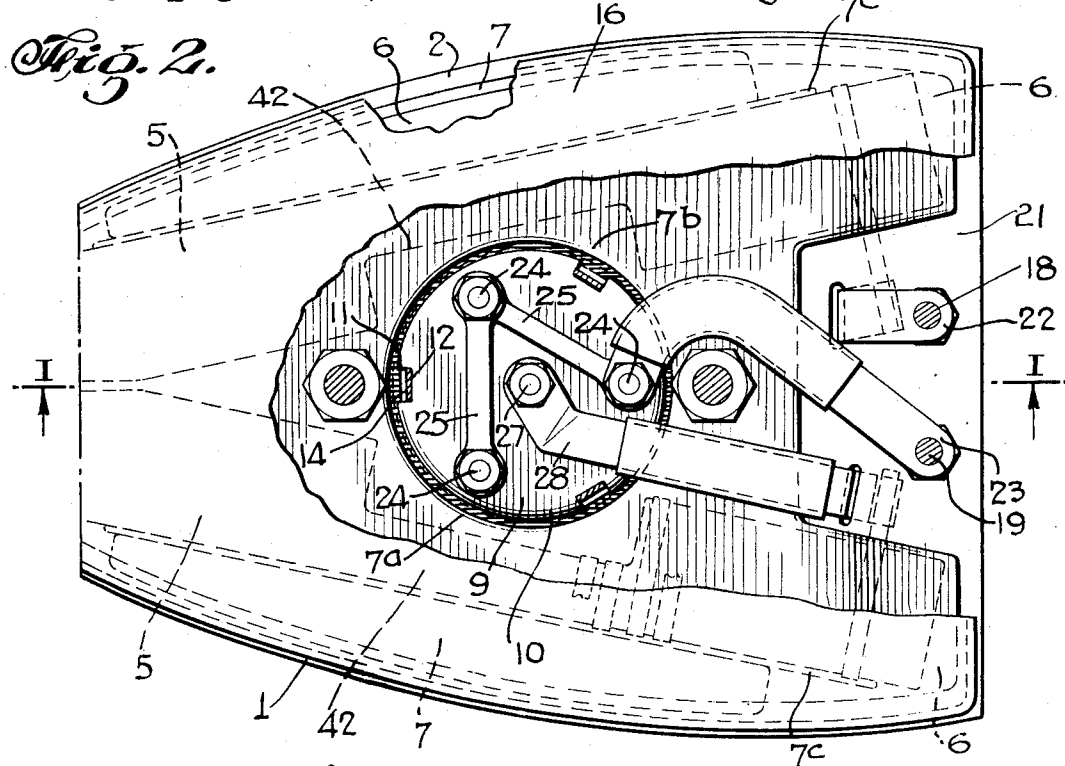
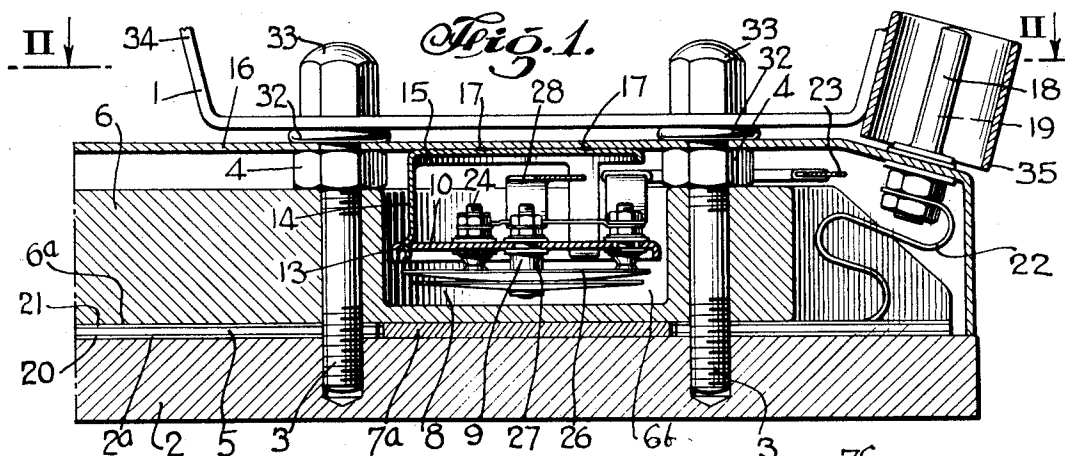
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ELECTRIC SADIRON

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UNITED STATES PATENT OFFICE

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ELECTRIC SADIRON

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6 Claims. (Cl. 219—25)

This invention relates to sadirons and more particularly to sadirons of an improved type in which apparatus is embodied for automatically regulating the temperature thereof.

5 One object of this invention is to improve the construction and operation of apparatus of this type in such a manner that substantially intimate and automatic control of the temperature of sadirons may be obtained without unduly complicating the structure thereof.

10 Other objects and advantages will appear as the description of the invention progresses, and the novel features thereof will be pointed out in the appended claims.

15 This invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawing, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain and peculiar features of the device, it being understood that, within the scope of what hereinafter thus is claimed, divers changes may be made without departing from the spirit of, or sacrificing any of the details of the invention.

20 In describing the invention in detail, reference is had to the accompanying drawing, wherein I have illustrated embodiments of my invention, and, wherein like characters of reference designate corresponding parts throughout the several views, and in which:—

25 Figure 1 is a sectional view taken on line 1—1 of Fig. 2, and, Fig. 2 is a part sectional, part plan view taken on line 2—2 of Fig. 1, and, Fig. 3 is a reduced size elevation view illustrating the method of assembly of unitary structures, and Fig. 4 is a reduced size sectional view of a modified form of the invention.

30 Referring to Figs. 1 and 2, the sadiron 1, comprises in part base 2 secured to which are studs 3—3 supporting nuts 4—4 arranged to clamp heating elements 5—5 and insulating members 20 and 21 between the upper face 2a of base 2, and the lower face 6a of weight 6. Also clamped therebetween are heat conducting segments 7—7 and disk heat conducting member 7a arranged to conduct heat from weight 6 to base 2.

35 Heat conducting segments 7 are insulatively separated from the heating elements 5—5 by insulating strips 7c—7c. Insulating members 20 and 21 are formed with circular orifices 7b, whereby the heat conducting disk 7b will be clamped between the faces 2a and 6a. The heating elements 5—5 of known form are modified by

notched portions 42—42 for effecting a clearance for heat conducting disk 7a.

Weight 6 is formed with a recess 6b arranged to receive thermostatic unit, or switch 9, more fully described in my co-pending application for Letters Patent Serial No. 233,483, filed Nov. 15th, 1927, Patent No. 1,867,379, granted July 12, 1932, the base member 10, of said unit being formed with notches 11—11, the inner faces 12—12 of which are arranged to snap into and be supported by recesses 13—13 of fingers 14—14 formed on supporting member 15 suitably secured to cover, or housing 16, as for example by welds, as 17—17.

Insulatively supported by cover 16, are terminal posts 18 and 19, terminal strip 22 connected to one end of the circuit formed by heating elements 5—5 being connected to terminal post 18, and terminal strip 23 connected to contact post 24 of thermostatic unit 9, being connected to terminal post 19.

Contact posts 24—24 are joined together by conductors 25—25 to form one terminus of the circuit controlled by thermostatic unit 9, whereas the contact supporting member 26 supported by terminal post 27 comprises the other terminus of the circuit controlled thereby, the conductor 28 connecting said last named post and the other terminus of heating elements 5—5.

Referring to Fig. 3, the unitary structure 30 comprises the heating elements 5—5, insulating members 20, 21 and 7c, the segments 7—7 and disk 7a clamped between base 2 and weight 6. The unitary structure 31 comprises the cover 16 supporting thermostatic unit 9. With the unitary structures preferably positioned as shown, the conductor 22 is secured to terminal post 18 and the conductor 28 to post 27, whereafter the unitary structure 31 is placed over the unitary structure 30 and thereafter washers 32—32, handle 34 and nuts 33—33 are added to complete assembly of sadiron 1. Handle 34 supports a suitable positioning and guard housing 35.

Referring to Fig. 4, showing a modified form of sadiron 36, the recess 37 is similar to recess 8, however has been deepened by forming a cylindrical passageway 38 through weight 39 whereby the thermostatic unit 9 may be arranged adjacent the upper surface 40 of base 41. The supporting member 43 is similar to member 15, however the fingers 44—44 have been lengthened whereby the thermostatic unit 9 may be positioned adjacent the face 40 of base 41.

Normally the contacts of thermostatic unit 9 are engaged and when energy is applied to terminals 18 and 19, flow thereof is effected from

terminal post 18 to conductor 22, thence through heating elements 5—5 to conductor 28 and post 27 to contact supporting member 26, thence to contact posts 24—24 to conductor 23, and thence through terminal post 19 to the source.

When the heating elements 5—5 have sufficiently heated the unitary structure 30, the thermostatic unit 9 will act to open the circuit thereby preventing over-heating of sadiron 1, or 36 and when the unitary structure 30 has cooled to an extent whereby heat should again be applied thereto, said thermostatic unit will act to establish said circuit.

Whereas only two connectors, as 25—25 have been shown for more clearer illustration, it is to be understood that three of said connectors may be employed whereby all three contact posts 24 are connected in a loop circuit.

What I claim is:—

1. An electric sadiron comprising, a substantially flat base member, a substantially flat heating element engaging the upper face thereof, a housing member for enclosing the heating element arranged to be seated on the base member, a thermostatic circuit controlling device comprising stationary and movable elements positioned adjacent the heating element arranged to be effected by the heat generated thereby for controlling the flow of energy thereto, a supporting member therefore rigidly secured to the inner wall of the housing member, resilient portions formed thereon having the free ends thereof resiliently clampably engaging the stationary element of the circuit controlling device for effecting the support thereof, and means for rigidly clamping the housing member and the heating element to the base member.

2. An electric sadiron comprising, a heating element clamped between a base and weight members, the weight member having a passageway formed between the top and bottom faces thereof, a housing member for enclosing the weight member and the heating element arranged to seat on the base member, a thermostatic circuit controlling device positioned in the passageway adjacent the heating element, and a supporting member therefore secured to the housing member, the supporting member having resilient fingers depending therefrom into the passageway, and means formed on the free ends of the fingers for resiliently clampably supporting the circuit controlling device therebetween.

3. An electric sadiron comprising, a substantially flat base member, a weight member having a substantially flat bottom face positioned spaced-

ly thereabove, a substantially flat heating element positioned in the space between the base and weight members, the heating element having an area less than the area of the clamping faces of the base and weight members whereby voids are formed therebetween, and substantially flat heat conducting members positioned in the voids between the clamping faces of the base and weight members, and means for clamping the base and weight members together for clampably positioning the heating element and the heat conducting members therebetween.

4. A unitary structure for electric sadirons comprising; a base member, a weight member spacedly positioned thereabove, heating elements insulatively interposed in the space between the base and weight members having a lesser area than the area of the base member superimposed over the base member whereby voids are formed in the space therebetween, heat conducting members having a thickness substantially equal to the thickness of the space positioned in the voids arranged to effect heat transfer between the base and weight members, and means for clamping the base and weight members together whereby the heating elements and the heat conducting members are clampably allocated therebetween.

5. In an electric sadiron, a heating element clampably supported between a base member and a weight member, the weight member having a passageway extending therethrough, a housing member for enclosing the weight member and heating element seating on the base member, a thermostatic switch in the passageway having a normally stationary contact supporting member and a movable thermostatic contact supporting member, a supporting member therefore secured to the housing member having resilient fingers extending downwardly into the passageway, the fingers having clamping portions resiliently clampably engaging the normally stationary contact supporting member.

6. In an electric sadiron, a heating element clampably supported between a base member and a weight member, a housing member for enclosing the weight member and the heating element seating on the base member, a thermostatic switch in the housing having a normally stationary member and a movable thermostatic member, a supporting member therefore supported by the housing member having resilient fingers, the fingers having clamping portions resiliently engaging the normally stationary member of the thermostatic switch for the support thereof.

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