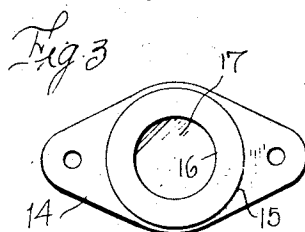
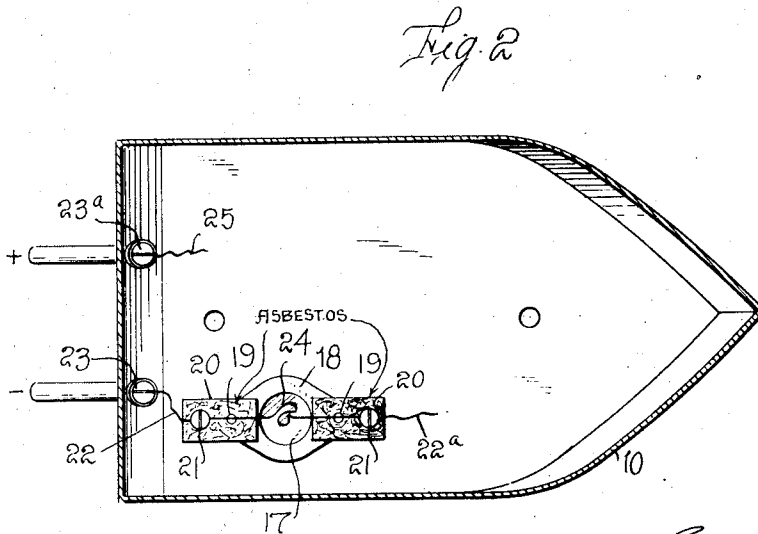
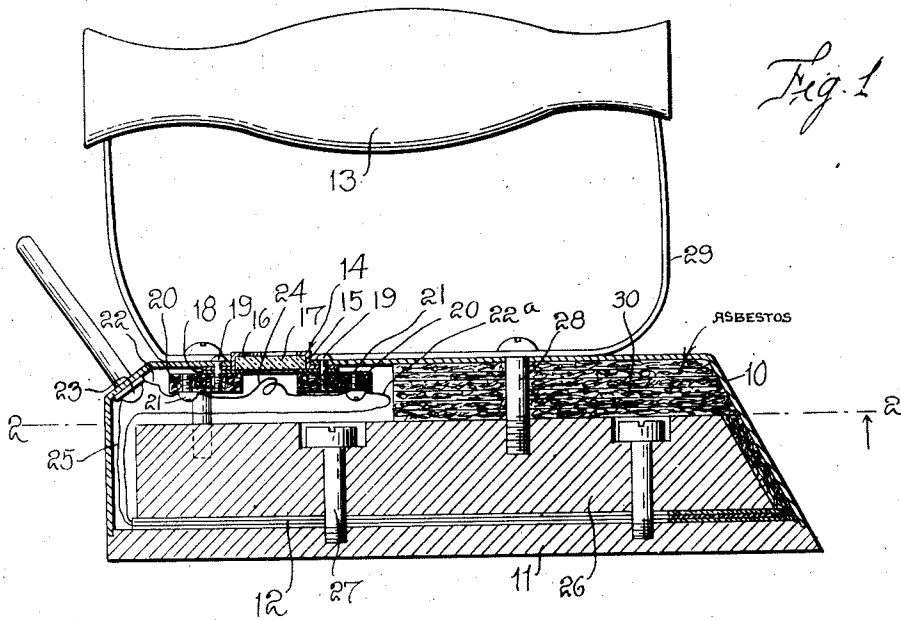


E. L. GLASS.
 INDICATING MEANS FOR ELECTRICALLY HEATING FLAT IRONS.
 APPLICATION FILED JAN. 12, 1918

1,280,709.

Patented Oct. 8, 1918.



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INDICATING MEANS FOR ELECTRICALLY HEATING FLAT-IRONS.

1,280,709.

Specification of Letters Patent.

Patented Oct. 8, 1918.

Application filed January 12, 1918. Serial No. 211,564.

To all whom it may concern:

Be it known that EDWARD L. GLASS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, has invented certain new and useful Improvements in Indicating Means for Electrically Heating Flat-Irons, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to flat irons, and particularly to electrically heated flat irons.

The general object of this invention is the provision of means for indicating in an electric flat iron whether the current is turned on or off.

A further object is to provide a very simple mechanism of this character disposed within a casing mounted upon the iron in any suitable or convenient manner.

A further object is to provide a device of this character in which a resistance wire is used disposed in series with the heating element so that this resistance wire will glow as long as the current is passing through it and get cold as soon as the current is turned off.

A further object is to eliminate all danger of the resistance wire burning out.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a longitudinal, vertical sectional view of an electrically heated flat iron embodying the improvements of my invention;

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1, looking in the direction of the dart; and

Fig. 3 is a detailed view of a part herein-after described.

Referring to these drawings 10 designates the casing of the flat iron and 11 the base of the flat iron to which the casing is attached in any suitable manner, the base of the flat iron having above or in any other suitable relation, any suitable resistance, heating element 12. I do not wish to be limited to the particular form of this heating element as I will merely say that it is a resistance coil properly supported in relation to the base of the iron. A handle 13 is attached to the casing in any suitable manner.

The casing 10 is made of thin sheet metal and has a sight opening and disposed within this opening is an approximately annular stamping 14 of thin sheet brass, the opening

through the center of the stamping being defined by an upwardly extending rim 15 and by an inwardly extending flange 16. Disposed beneath the flange 16 is a small disk of glass or other transparent material designated 17 and holding this glass in place is a somewhat elliptical or oval disk 18 of brass or other suitable metal having its central portion cut away. Screws 19 pass through the top of the casing, through the ends of the stamping 14 and through the ends of the disk 18 and into two blocks 20 of asbestos. These blocks of asbestos are approximately $\frac{1}{4}$ " thick, $\frac{3}{4}$ " long and a half inch wide and have holes in them for the reception of the screws 19. They also have holes in them for the reception of the screws 21. To one of these screws 21 a lead wire 22 extends from a binding screw 23 and from the other of the screws a lead wire 22^a extends to the heating element. A lead wire 25 extends back from the heating element to a second binding screw 23^a.

Connecting the screws 21 and crossing the space beneath the disk of glass 17 is an indicating wire 24 which is a piece of "Nickrone" resistance wire of approximately three inches in length, the gage of the wire varying with the amperage of the iron. This wire is connected to the screws 21 and thus is in circuit with the lead wire 22 and the wire 22^a leading to the heating element.

Disposed within the casing 10 and above the heating element 12 is a plate or iron 26 which forms a weight and which is held to the base 12 by means of screws 27, the heads of these screws being held by recesses in the top of the plate 26. Holding the casing 10 to the plate 26 are screws 28 which pass down through the top of the casing 10 and which also hold the legs 29 of the handle 13 to the casing, these legs 29 being formed by a strip of sheet metal expanding from one handle to the other and bent into U-form and through which the screws 28 pass. Disposed between the top of the casing 10 and the top of the iron plate 26 and around the side faces of the iron plate is asbestos 30. This asbestos is to be packed in solidly so as to insulate the upper portion of the iron from the heating element and from the base 11. The iron plate 26 is also heated by the heating element and acts to retain the heat so that an even heat is maintained within the iron. Preferably, and as shown in Fig. 2, the sight opening is disposed to one side of the iron so

that the handle will not obstruct the view of the indicating wire 24.

It will be seen that when the current is turned on the current will flow through the 5 indicating wire 24 which is looped beneath the glass disk 17 and a flow of current through the wire will cause it to get red hot and thus it is easily observed whether or not the current is on. The wire 24 will 10 glow just so long as the current is turned on, as it is in series with the source of current and the heating element. As soon as the current is turned off the wire will get cold and black, thus indicating the current is 15 turned off. All danger of the wire 24 burning out is reduced to a minimum as when the heating element gets hot, it will naturally increase in resistance and therefore less current will be allowed to pass through the wire 20 24. The advantage of placing this indicating wire in series with the heating element and the source of current is that if the heating element or the conductor leading into the iron should be "open" it will not indi- 25 cate. It is to be understood of course that I do not wish to limit myself to any particular form of heating element and that many minor modifications may be made in the detailed construction of this device without departing from the spirit of the invention as 30 defined in the appended claims.

Having described my invention what I claim is:

35 1. An electrically heated flat iron including a body having an electrically energized heating element, a casing extending over said body and detachably engaged therewith, the casing at one point being provided with a sight opening, binding posts projecting 40 from the casing, and an indicating unit, comprising an indicating high resistance

wire, a supporting member having a transparent pane, insulating blocks, binding screws connected to the insulating blocks and engaging said indicating resistance 45 wire, means detachably supporting said unit with its transparent pane and indicating wire beneath the sight opening of the casing, and electrical connections between the binding post and one of said binding screws 50 and between the other of said binding screws and the heating element, the unit being removable from the casing as a whole.

2. An electrically heated flat iron including a base, a heating element disposed in 55 conjunction with the base, a casing attached to the base and inclosing the heating element, lead wires entering the casing, the top of the casing being formed with a sight opening, a flanged annulus disposed within 60 the casing and projecting upward through the opening, a disk of glass supported within the annulus, refractory insulating blocks disposed beneath the annulus, screws passing 65 through the casing and into the insulating blocks, binding screws mounted on said blocks, one of the lead wires being connected to one binding screw, a wire having electrical resistance connected to said binding 70 screws and extending beneath said sight opening and formed to provide a loop beneath the sight opening, and electrical connections from the other of said binding screws to the heating element and from the heating element to the other of said lead 75 wires.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

EDWARD L. GLASS.

Witnesses:

JENNIE JORDAN,
EVA NEUDORFER.