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R. ROLLER

1,966,263

CORDLESS ELECTRIC IRON

Filed Nov. 18, 1932

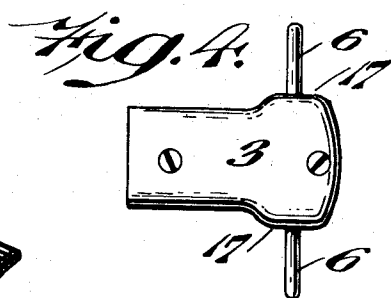
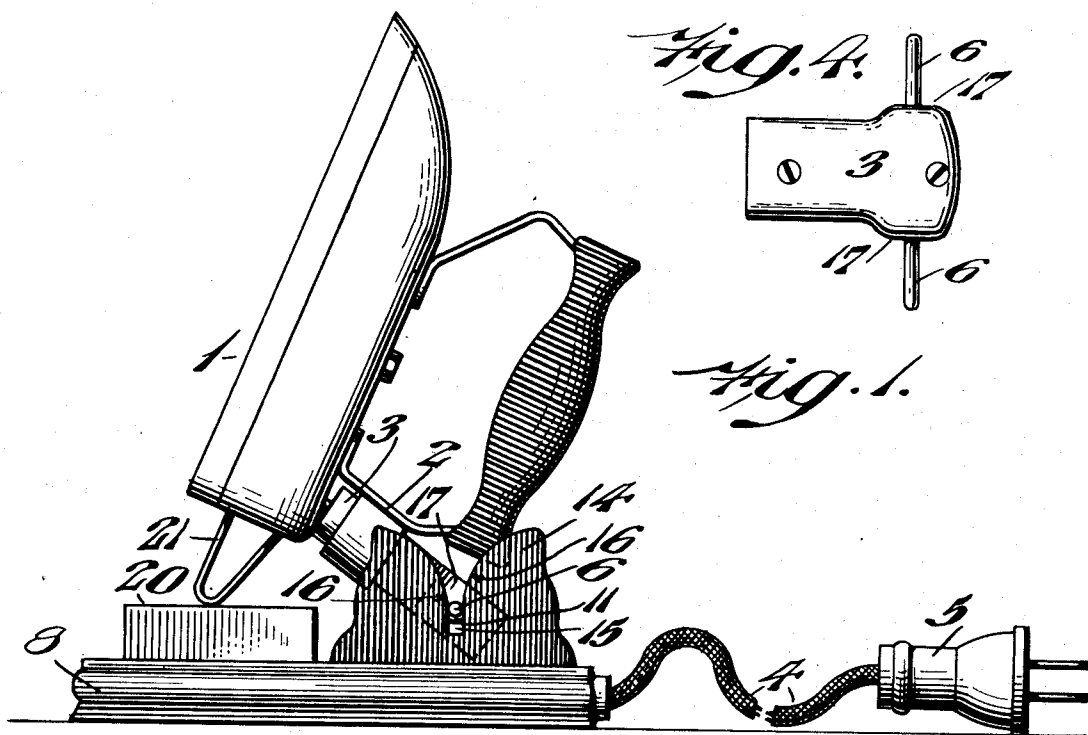


Fig. 1.

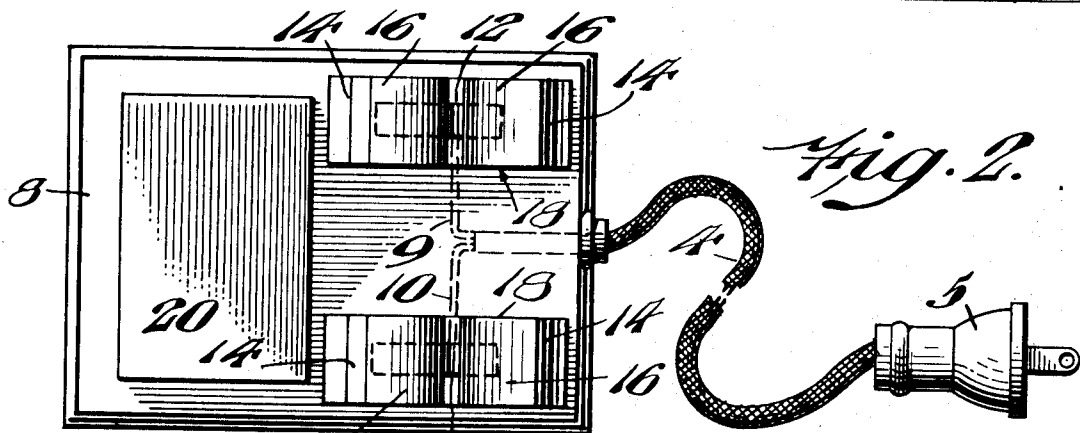


Fig. 2.

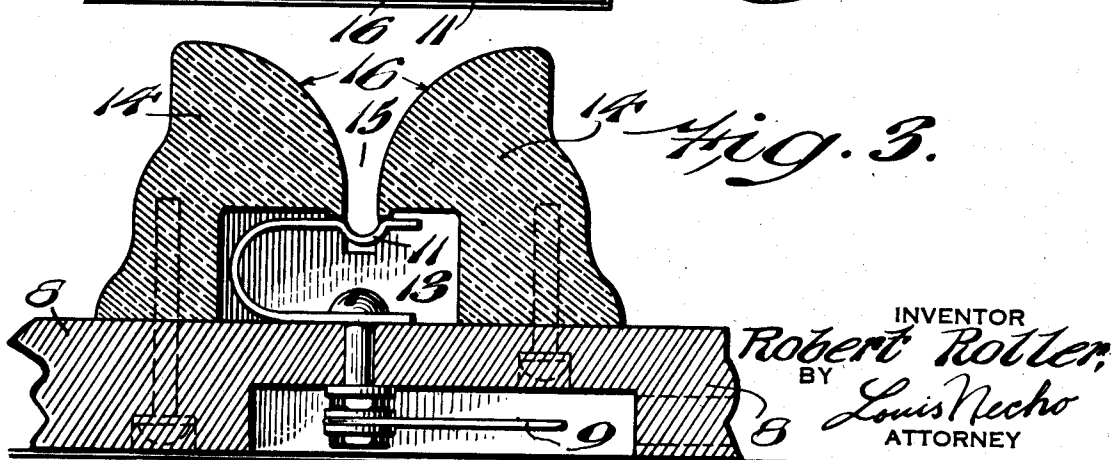


Fig. 3.

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CORDLESS ELECTRIC IRON

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Application November 18, 1932, Serial No. 643,152

2 Claims. (Cl. 219—25)

My invention relates to a new and useful cordless electric iron which is adapted to be supplied with electrical energy without the use of the conventional flexible cord connecting the iron to an electric socket.

To the above end, my invention consists of an electrically wired base which is adapted to be connected by means of a conventional electrical conductor to an electrical socket, said base having electric contacts therein adapted for engagement with corresponding contacts on the iron or on an intermediate plug applied to the iron, said contacts being readily accessible to the contact points of the iron and being at the same time adequately protected to prevent accidental contact thereof with the fingers of the operator or any other instrumentality other than the contacts of the iron intended to connect therewith.

My invention further consists in means for guiding the contacts on the iron in the contacting position with the contacts of the base to eliminate the necessity of careful manipulation under actual working conditions.

My invention further consists in a novel plug adapted to coact with conventional irons at the present time in use, so as to render my invention equally applicable to irons on the market as well as irons which will be made and sold in the future.

My invention further consists of various other novel features of construction and advantage, all as hereinafter set forth in connection with the accompanying drawing in which:

Figure 1 is a side elevation of an electric iron embodying my invention.

Figure 2 is a plan view of Figure 1.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is a plan view of the connecting plug forming part of my invention.

Referring to the drawing in which like reference characters indicate like parts, 1 designates an iron of any conventional make which is provided with the rear contact prongs which in the drawing are obscured by the conventional guard or shield 2. Conventionally, the contact prongs are adapted to enter corresponding contacts in the plug 3 which also conventionally is connected to the conductor 4 which terminates in the plug 5 adapted for insertion into a wall socket in the usual manner. In lieu of the conventional plug which is usually connected with the conductor 4, my novel plug 3 is provided with the conventional sockets for receiving the prongs of the iron which in turn are electrically connected to the side prongs 6. 8 designates a base

of any suitable material, such as metal, wood, bakelite, or any other desirable, light, unbreakable and heat insulating composition, and is connected at its rear end to the electrical conductor 4, the wires 9 and 10 of which lead to binding posts 11 and 12 which are in the form of springs suitably insulated from the base 1 and its adjuncts. Each of the spring binding posts or contacts 11 and 12 is positioned within a chamber 13 formed in the guards 14 and accessible for contact with the side prongs 6 of the plug 3 through the opening 15, as clearly illustrated in Figure 3. The curved faces 16 of the guards 14 serve to guide the side prongs 6 of the plug 3 downwardly into contacting position with the contacts 11 and 12, thereby eliminating the necessity of careful manipulation in using the iron. Furthermore, the guards 14 which enclose the contact points 11 and 12 are preferably so spaced as to provide a space therebetween, more or less equivalent to the width of the plug 3, so that the edges 17 of the plug 3 preferably abut against the edges 18 of the guards 14, thus more firmly to hold the iron in the position shown in Figure 1, in which position the iron is supplied with electric energy. The contact members 11 and 12 are made of spring metal so as to give under the weight of the iron thereby insuring constant and perfect contact with the prongs 6 regardless of any inaccuracy in manufacture or any inclinations or irregularities in the surface on which the iron is positioned. On the base 8 is positioned the block 20 which serves to support the iron at the proper level to give it the necessary inclination to make contact, all as shown in Figure 1. The iron is provided with the usual rear bracket 21 which rests on the block 20 when the iron is being energized. In actual operation the iron is positioned as shown in Figure 1 for a few minutes, three or four minutes having been found to be sufficient in actual practice, in order to bring it to the necessary temperature. After the iron has been sufficiently heated, it is used in the usual manner, and while the operator is adjusting the piece being ironed, such as moving it over the board, folding it or putting it away with a view of working on a subsequent piece, the iron is again placed in the position shown in Figure 1 and the few seconds necessary for the manipulation of the piece being ironed have been found in fact to be sufficient to replenish the heat radiated from the iron during the previous period of ironing, so that the iron is maintained at the requisite temperature. It will be apparent that by means of my novel iron, not

only is the encumbrance of a cord following the hand of the operator, with all its inconvenience, entirely eliminated, but at the same time a great saving in electric energy is accomplished, since the iron is not constantly heated while it is not in use or when such heat is not necessary. I, furthermore, eliminate all fire hazards which have heretofore been attendant upon the use of electrical irons due to the forgetfulness of the operator to disconnect or to turn off the iron, which in a short space of time turns into red heat and starts a fire, since if the operator using one of my novel ironis is interrupted for any length of time or has finished the work on hand the iron is set on the block 20 with the bottom thereof resting on said block, in which position it is not connected to the source of energy and is hence absolutely safe as far as fire hazard is concerned, as well as the undesirable overheating often resulting in scorching, also the contingent saving in electrical current consumption. A further advantage of my invention is that it obviates all necessity for use of thermostats for regulating the heat of an iron, which thermostats not only add to the cost but frequently get out of order and frequently are entirely inoperative, since the interruption of the supply of electrical current during actual use of the iron and the intermittent replenishing of the current during interruptions at intervals of the actual work results in replenishing the heat but not in overheating the iron, thereby maintaining a fair average heat without the necessity of turning the iron off and on and without relying upon a thermostat or any other controlling mechanism.

It is to be understood that while I have set forth this preferred form of my invention, I am nevertheless aware that the idea of providing a cordless electrical iron supplied with electrical

energy, in accordance with the general principle herein outlined, can be constructed with various different details, and I do not wish to be limited to the exact material specified or exact structure illustrated.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with an electric iron of a base, contact points on said base, an electrical conductor adapted to energize said contact points, a plug adapted to be carried by said iron, transverse contact prongs carried by said plug and adapted to engage said contact points, and means for guiding said contact prongs into engagement with said contact points, for guarding said contact points from accidental contact with external objects and for guiding and retaining said plug in position, comprising a pair of lugs extending above each of said contact points and having their juxtaposed inner surfaces curved downwardly and converging toward said contact points, said pairs of lugs being spaced a distance equal to the width of said plug.

2. Power-supply base structure for an electric hand iron of the cordless type provided with two protruding connecting pins; said base structure being provided with aligned and spaced channels for receiving said pins of the iron, and contact elements disposed respectively at substantially the bottoms of said channels and for contacting engagement respectively by said pins, the opposite walls of said channels diverging upwardly from the bottoms thereof to provide relatively wide entrance ways for said pins and also providing guiding surfaces for the latter to ensure their registration respectively with said contact elements.

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40		115
45		120
50		125
55		130
60		135
65		140
70		145
75		150