July 3, 1934. M. N. MATVEYEFF 1,964,923

ELECTRIC SADIRON

Filed Aug. 30, 1933

Fig. 1

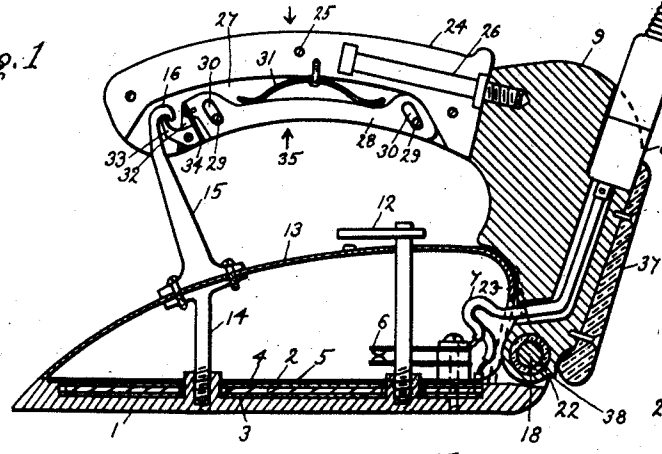


Fig. 4

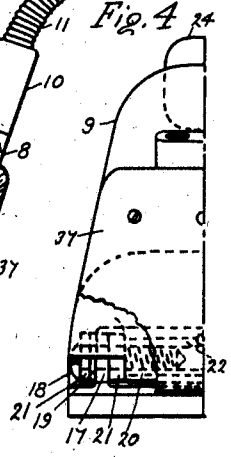


Fig. 2

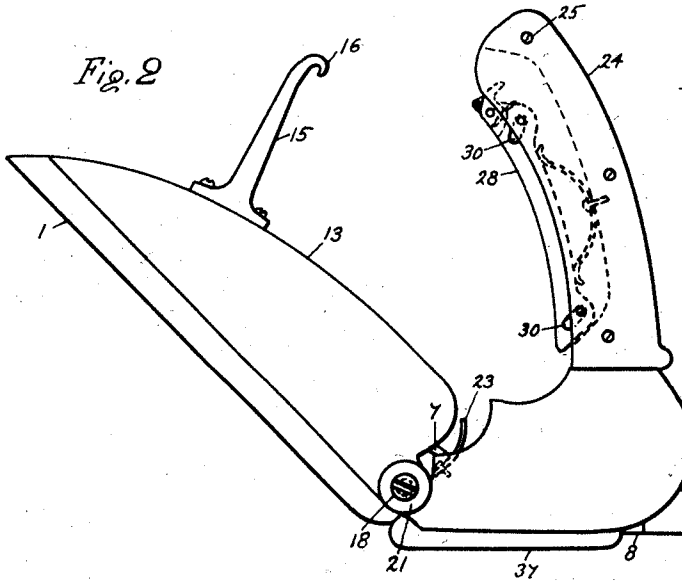


Fig. 5

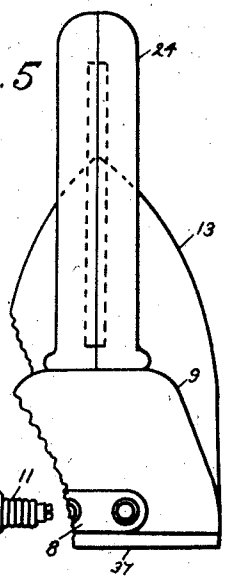
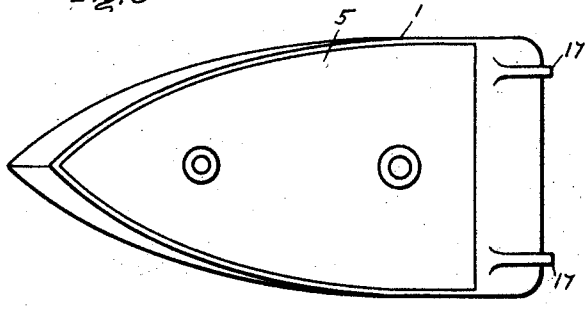


Fig. 3



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Patented July 3, 1934 1,964,923

UNITED STATES PATENT OFFICE

1,964,923

ELECTRIC SADIRON

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Application August 30, 1933, Serial No. 687,465

4 Claims. (Cl. 219—25)

My invention relates to electric sadirons used for ironing or pressing linen and clothes.

Ordinary electric sadirons, when not used, must be placed on special stands or supports in order to prevent the burning of the work if left in contact with it and when under electric current. Such accidental burning of the work can always happen, however, when the user forgets to place the iron on the support failing at the same time to disconnects the electric switch.

With my improved electric sadiron I provide means for removing the heated portions of the apparatus from the direct contact with the work as soon as the user's hand is removed from the handle of the sadiron, such removal taking place entirely automatically.

For this purpose I connect the working or heated portion of the iron by hinges with a heavy block at the rear, this block also having a handle. The block is provided with heat insulating lining at the back, and the whole device is so balanced that it turns over and stands on the insulated lining with the heated portion in the air when the iron is not used. By taking hold of the handle and turning the iron over the handle is folded over the iron and locked in this position, so that the iron can be used in an ordinary manner. As soon as the grip on the handle is released, however, a spring releases the handle, another spring swings the handle out overbalancing the device and causing it to turn over and to stand on the insulated back. The electric plug is fitted into the heavy rear block so that it is out of the way when the iron stands on its back.

My invention is more fully described in the accompanying specification and drawing in which—

Fig. 1 is a sectional elevation of my sadiron in its operative position, Fig. 2 is an elevation of the sadiron in an inoperative position, Fig. 3 is a top plan view of the heated portion of the device, Fig. 4 is a partial rear view of the device in an operative position, and Fig. 5 is a partial rear view of the device in an inoperative position.

My sadiron consists of a bottom plate 1 which is polished on the outside being used for pressing the work. It has a recess in its upper side for a heating element 2 of an ordinary construction. It may consist of a wire wound on an insulation plate made of some refractory material, such as mica or asbestos. The heating element or resistor is placed between refractory insulation plates 3 and 4 with a metal top plate 5. One end of the resistor wire is attached to a thermostatic switch 6 from which a flexible cord 7 extends to a socket 8 in a rear block 9. The other wire from the resistor is connected directly to the other terminal in the socket. A plug 10 of an ordinary construction engages the socket and has flexible leads 11. The switch 6 has a regulating handle 12 extending through a metal cover 13 of the iron. A post 14 is supported on the plate 1. The cover 13 is clamped between the post 14 and an outside port 15 with a hook 16 on the end.

The plate 1 is curved at the rear to facilitate its rolling over and is provided with raised lugs 17 with holes for screws 18. The cover 13 also has similar lugs 19 for the screws 18. The block 9 has a central lug 20 fitting between the lugs 17 with insulation washers 21.

An insulation bushing 22 is fitted inside of the lug 20 and the screws 18 are screwed into this bushing. Any ordinary heat resisting materials may be used for the washers and bushings, such as bakelite, micarta, or similar compositions. The screws are adjusted so that the block 9 should swing freely on the base plate 1. A spring 23 attached with its lower end to the block 9 in a special recess bears against the cover 13 and tends to throw the block 9 away from the cover as soon as the grip on the handle is released.

The handle 24 is also made of a heat insulating material, such as bakelite, vulcanized fibre etc. It consists of two halves joined together by rivets or screws 25. A screw 26 with a square head is wedged between the halves and is screwed into the block 9 thereby holding the handle in its place. A slot 27 is formed between the halves for a sliding bar 28. The bar is held on two pins 29 passing through elongated inclined slots 30. A spring 31 tends to push the bar out of the slot 27 into inoperative position as shown in Fig. 2. The front end of the bar has a recess 32 in which a hook 33 is pivotally supported. The rear end of the hook is made flat and it rests against a spring 34. The slots 30 being at an angle with the base 1, the hook 33 is moved away from the end of the handle with the bar in released position, so that the hook 16 can pass freely over the hook 33. When the handle is held in the user's hand, the bar 28 is pushed inside as shown with arrows 35. The hook 33 advances toward the front end of the handle and in this position it engages the hook 16. When the handle is pressed down the hook 16 turns the hook 33 on its hinge thereby passing over it. The hook 33 then snaps back under tension of the spring 34 and engages the hook 16.

The front end of the hook 33 rests against a pin or bridge 36 in the slot 32 so that the hook

cannot turn outward. The hook 33 in this position firmly holds the hook 13 so that the whole device can be operated as an ordinary sadiron, moved around and lifted by the handle 24. The parts are so balanced that in the closed position the sadiron has no tendency to tilt backward.

As soon as the grip on the handle is released, however, the bar 28 slides out on the pins 29 under tension of the spring 31 thereby moving the hook 33 away from the hook 16 and releasing the latter. The handle being released, the block 9 swings backward being under pressure from the spring 23, and comes to rest on its back. A plate 37 is fastened to the back of the block. It is made of some heat insulating material, such as fibre, asbestos composition, bakelite, etc. A shoulder 38 comes to rest against the rear edge of the plate 1, and the plate becomes lifted in the air as shown, being lighter than the block 9. The sadiron will remain in this position as long as it is not in use, the heated surface being kept out of contact with the work.

Important advantages of my sadiron are that it is entirely automatic in its safety feature, so that the heated portions cannot remain in contact with the work when the iron is not used, it can be made of any standard weight, such as 4 or 6 lbs., is simple for manufacturing and attractive in appearance.

I claim as my invention:

1. In an electric sadiron, the combination with a base plate, of a heating element in said plate, means to conduct the electric current to said element, hinges at the rear end of said plate, a block substantially heavier than said plate, hinges on said block connected with said plate hinges, a handle on said block, a support on said plate for said handle, a hook on said support, said handle being provided with a slot, a bar slidably supported in said slot, a hook on said bar, means to move said bar out of said slot, said bar being adapted to be moved inside of said slot by the pressure from the user's hand on said handle, said hook on the bar being adapted to engage said supporting hook when said handle is held in the user's hand and being further adapted to release said supporting hook when the user's hand is removed from said handle, said block being adapted to swing backward on said hinges when said handle is released from said support and being further adapted to rest on its back, and means to limit the relative movement between said block and said base thereby causing said base plate to be raised in the air when said block rests on its back.

2. In an electric sadiron, the combination with a base plate, of means electrically to heat said plate, hinges at the rear of said plate, a block, hinges on said block pivotally connected with said plate hinges, means to limit the relative movement between said plate and said block, a handle extending from said block, means to releasably connect said handle with said plate, said block forming an overhanging rear portion of said sadiron and being substantially heavier than said plate, and being adapted to swing on said hinges when said handle is released from said plate the operator's hand being removed from said handle, being further adapted to rest on its back in the released position, said plate being adapted to be raised in the air when said block rests on its back.

3. In an electric sadiron, the combination with a base plate, of means to heat said plate, a block hingedly connected with the rear end of said plate, a handle extending from said block, said block being heavier than said plate and being adapted to swing backward on said hinges and to rest on its rear portion, means to limit the relative movement between said plate and said block thereby causing said plate to be raised in the air when said block rests on its rear portion, said block being adapted to be turned into operative position by pressure from the user's hand on said handle, and means to lock said block in the operative position, said means being operated by the pressure of the user's hand on said handle.

4. In an electric sadiron, the combination with a base plate, electric heater in said plate, a block hingedly connected with the rear end of said plate, a handle extending from said block, said block being heavier than said plate and its center of gravity being beyond said hinged connections, said block being adapted to swing backward and rest on its rear side, means to limit the relative movement between said block and said plate thereby causing said plate to be raised in the air when said block rests on its back side, said block being adapted to be manually turned into its operative position by said handle, and electric wires passing through said block to said heating element, said wires forming a flexible loop between said plate and said block.

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