Sept. 11, 1945. T. F. SAFFADY 2,384,642

ELECTRIC IRON HAND GRIP

Filed Dec. 6, 1943

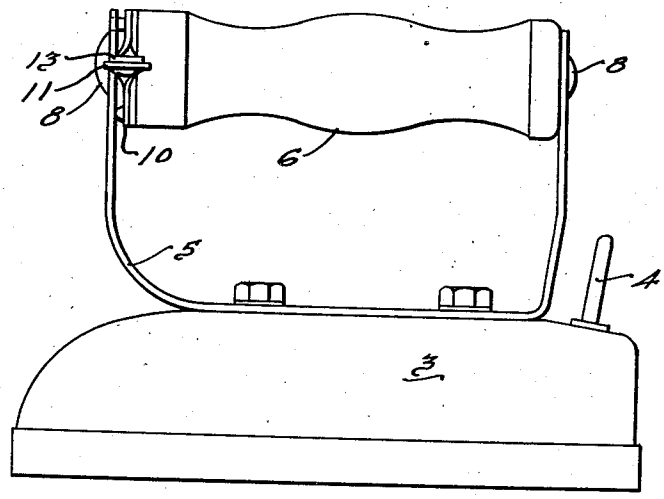

FIG. 1.

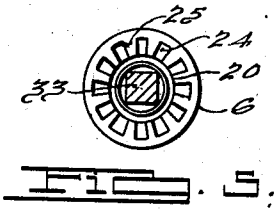

FIG. 5.

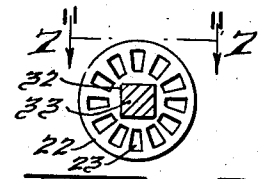

FIG. 6.

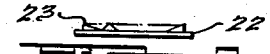

FIG. 7.

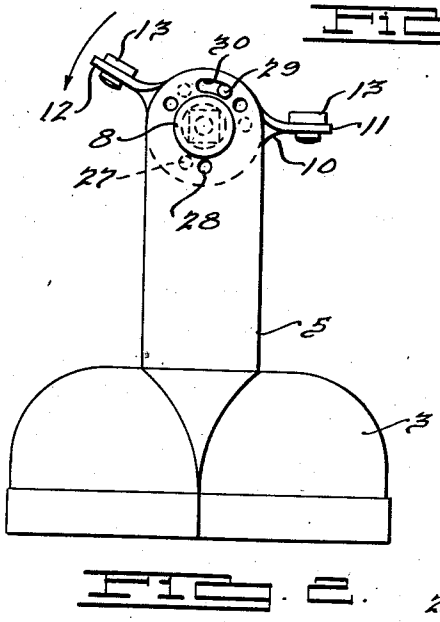

FIG. 2.

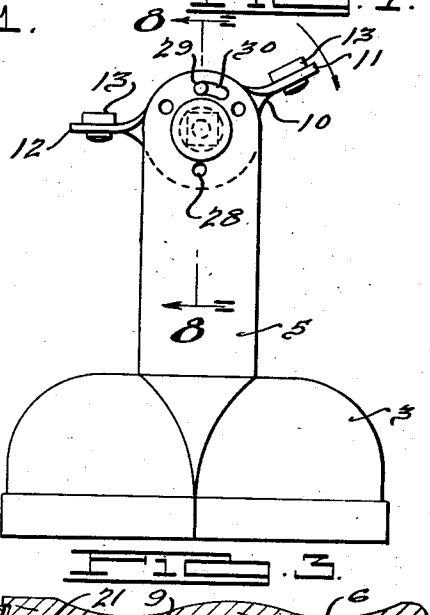

FIG. 3.

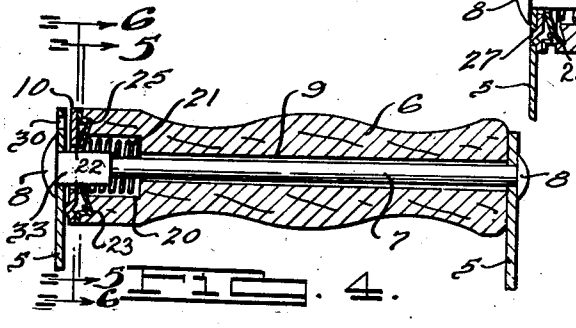

FIG. 4.

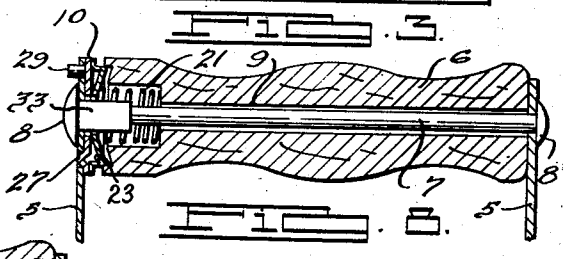

FIG. 8.

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ELECTRIC IRON HANDGRIP

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Application December 6, 1943, Serial No. 513,046

3 Claims. (Cl. 38—90)

This application relates to electric irons, and more particularly to hand grips of such devices.

Electric irons as presently constructed have a rigid or fixed hand grip. As the iron is moved back and forth by the user, relative motion takes place between the hand grip and the skin of the gripping hand of the user. This relative motion, in many instances, causes discomfort, blisters, and callouses. It is proposed by the present invention to make the hand grip freely revolvable with respect to the iron so that it need not move with respect to the skin of the hand of the user, and it is further proposed to provide quickly manipulable means for latching the hand grip against rotation with respect to the iron, or for releasing the hand grip to be freely rotatable with respect to the iron and thus to be fixed with respect to the skin of the hand of the user.

The invention has been embodied in the device disclosed in the attached drawing.

In the drawing,

Fig. 1 is a side view.

Fig. 2 is an end view showing the device with the hand grip latched against rotation.

Fig. 3 is a similar view but showing the hand grip unlatched and free for rotation.

Fig. 4 is a longitudinal section view of the handgrip construction.

Figs. 5 and 6 are section views as if on lines 5—5 and 6—6 of Fig. 4.

Fig. 7 is an edge view, on line 7—7 of Fig. 6.

Fig. 8 is a section on line 8—8 of Fig. 3.

An electric iron is shown at 3. It has the usual connector prongs 4 and a U shaped metal springy bracket 5 between which is a hand grip 6 formed of any suitable heat insulating material, such as wood or a molded plastic.

The hand grip is hollow to receive a rod 7 which connects the ends of the bracket 5 and has its own end headed over as shown at 8 to form a permanent fastening and support for the hand grip whose bore 9 is sufficiently larger than the rod 7 so as to be freely rotatable thereon, except when latched against rotation by means about to be described.

The latching means includes a manipulable latching disc 10 formed with exposed and accessible wings 11 and 12, each of which has an insulating button 13 thereon, so that the wings may be pressed down selectively for latching or for releasing the hand grip by the thumb or forefinger of the hand of the user, which grips the hand grip 6.

The parts are so designed that with the right hand of the user gripping the hand grip 6, the wing 11 may be pressed down from the position of Fig. 3 to the position of Fig. 2 to latch the hand grip against rotation and the wing 12 may be pressed down by the forefinger from the position of Fig. 2 to the position of Fig. 3 to free the hand grip for rotation.

The end of the hand grip near the disc 10 is counterbored, as shown at 20, to receive and seat a spring 21 pressing against a clutch disc 22, formed with clutch teeth 23, adapted to register with teeth 24 formed on the wall 25 of the hand grip.

The disc 10 is formed with knobs 27 adapted to register with holes 28 in the bracket 5 and also has a pin 29 seating in an arcuate slot 30 of the bracket 5.

The operation is as follows:

When the hand grip is locked as shown in Fig. 2 with the wing 11 having been pressed down by the right hand thumb, knobs 27 of the locking disc are out of register with the holes 28 of the bracket and consequently the disc 10 holds the clutch disc 22 against the hand grip surface 25 so that the teeth 23 of the clutch disc register with the teeth 24 of the hand grip to lock the hand grip to the clutch disc. Since the latter has a squared hole 32 through which the squared end 33 of the rod 7 passes, whereby the clutch disc 22 is non-rotatable with respect to the rod, the locking of the hand grip to the clutch disc, makes the hand grip non-rotatable with respect to the rod 7.

When the wing 12 is pressed down by the right hand forefinger, the knobs 27 register with the holes 28 of the bracket and this frees the locking disc 10 and the clutch disc 22 to be moved to the left by the spring 21 so as to unlock the hand grip from the clutch disc and this frees the hand grip to rotate with respect to the rod 7.

The stop 29 in the arcuate slot 30 limits rotation of the locking disc 10 to the positions of Figs. 2 and 3.

The iron shown has been designed to lock the hand grip by the thumb of the right hand of the user and to free it by the forefinger of the right hand of the user. It may, however, be designed for a left handed person in which case the locking disc will be so formed that thumb pressure of the left hand will lock the hand grip and forefinger pressure of the left hand will release it.

Now having described the locking device herein disclosed, reference should be had to the claims which follow.

I claim:

1. In an electric iron, a base, uprights fixed

to the base, and a hand grip bridging the uprights and rotatably mounted on and between them, to rotate on an axis parallel to the base, means positively preventing removal of said hand grip from said uprights, and quickly manipulable means for releasably latching the hand grip against rotation with respect to the uprights, said manipulable means being quickly movable to inoperative position wherein it permits rotation of the hand grip with respect to the uprights, or into operative position wherein it prevents rotation of the hand grip with respect to the uprights.

2. In an electric iron, a base, uprights fixed to the base, and a hand grip bridging the uprights and rotatably mounted on and between them, to rotate on an axis parallel to the base, means positively preventing removal of said hand grip from said uprights, and quickly manipulable means for releasably latching the hand grip against rotation with respect to the uprights, said manipulable means being quickly movable to inoperative position wherein it permits rotation of the hand grip with respect to the uprights, or into operative position wherein it prevents rotation of the hand grip with respect to the uprights, said manipulable means being positioned at the forward end of the hand grip, in position to be manipulated by the thumb or forefinger, or both, of a hand on the hand grip.

3. In an electric iron, a base, uprights fixed to the base, and a hand grip bridging the uprights and rotatably mounted on and between them, to rotate on an axis parallel to the base, means positively preventing removal of said hand grip from said uprights, and quickly manipulable means for releasably latching the hand grip against rotation with respect to the uprights, said manipulable means being quickly movable to inoperative position wherein it permits rotation of the hand grip with respect to the uprights, or into operative position wherein it prevents rotation of the hand grip with respect to the uprights, said manipulable means being positioned at the forward end of the hand grip, in position to be manipulated by the thumb or forefinger, or both, of a hand on the hand grip, the means including two separate buttons located at opposite sides of said hand grip, whereby one may be manipulated by the thumb, and the other manipulated by the forefinger, and whereby one is manipulable for latching the hand grip and the other manipulable for releasing the hand grip, manipulation by one button causing the manipulable means to move in one direction, and manipulation by the other button causing the manipulable means to move in the opposite direction.

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