June 11, 1946. H. C. FAIRLEY 2,401,820

ELECTRIC ROLLER IRON

Filed Jan. 28, 1943

Fig. 1.

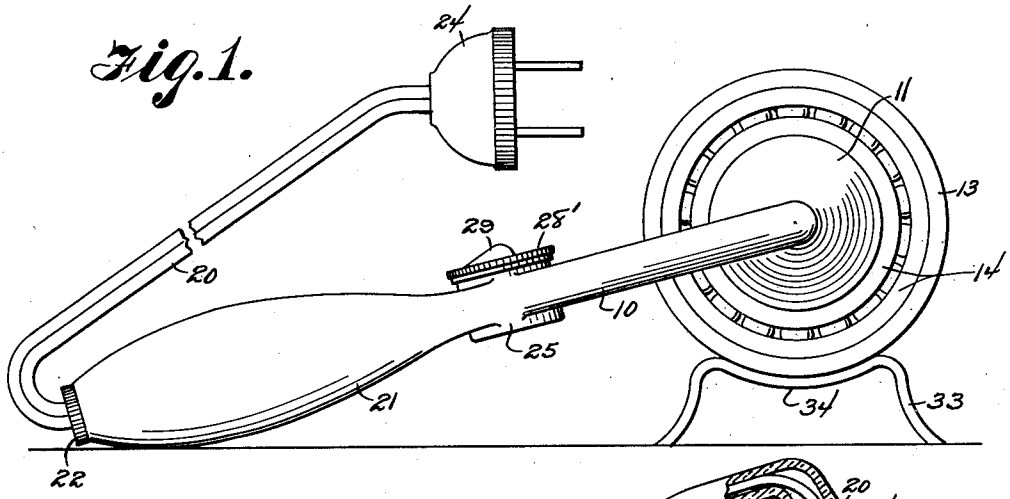


Fig. 2.

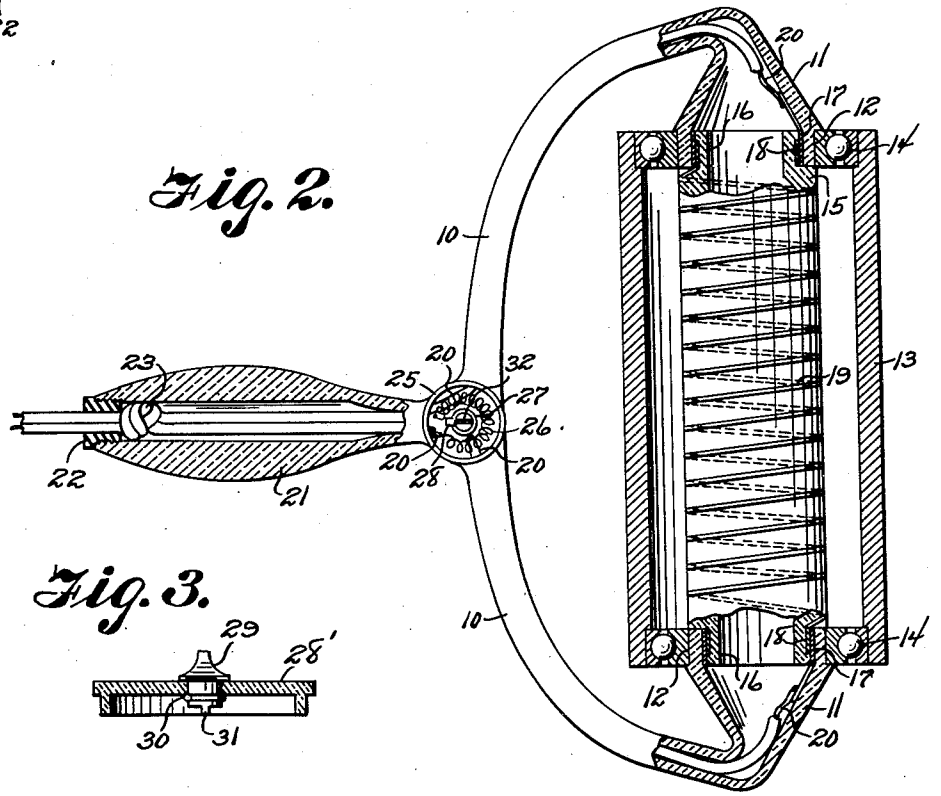


Fig. 3.

WITNESSES:

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ELECTRIC ROLLER IRON

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1 Claim. (Cl. 219—21)

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This invention relates to an electric roller iron and has for an object to provide a roller iron including a polished tubular metal roller electrically heated and adapted to iron garments especially flat work, with maximum of space coverage and speed, as well as to reduce fatigue of the user, the device being also adapted to squeegee photographic prints and dry the same in quicker time than can be accomplished by subjecting the prints to warm air currents.

A further object is to provide apparatus of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a side elevation of an electric roller iron constructed in accordance with the invention supported on a stand.

Figure 2 is a longitudinal sectional view of the roller iron shown in Figure 1 with portions in elevation.

Figure 3 is a detail sectional view of the cap and operating knob of the rheostat.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a hollow yoke having enlarged ends 11 of conical formation terminating in cylindrical hollow shafts 12 disposed in axial alignment.

A polished tubular roller 13 is mounted on ball bearings 14 carried by the hollow shafts 12. The cylinder is thus mounted for free rotation on the hollow shafts.

A hollow cylindrical core 15 of insulating material is disposed within the roller 13 and is provided at the ends with tubular extensions 16 which enter the hollow shafts 12 of the yoke. Metal conductor rings 17 are wedged between the tubular extensions 16 of the core and the hollow shafts 12 of the yoke. Conductor rings 18 are carried by the extensions of the core and engage the conductor rings 17. A coil of resistance wire 19 is wound helically upon the core and is connected at the ends to the rings 18. Conductor wires 20 extend through the hollow yoke and are connected to the conductor rings 17 to energize the resistance coil for heating the roller 13.

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The conductor wires 20 extend from the yoke 10 through a hollow handle 21 which is connected to the yoke and are confined in the handle by a bushing 22 which is screwed into the end of the handle and engages a knot 23 formed in the conductor wires. The conductor wires are connected to a cap 24 of a plug in connector.

The rheostat comprises an annular resistance coil 26 one end of which is connected to one of the conductor wires 20 and the other end of which is engaged by a rotatable terminal 27 in the body of the rheostat, which terminal is connected to the other conductor wire 20. As the terminal is rotated the conductor arm 28 thereof has wiping engagement with the resistance coil 26 to vary the resistance in the current supply to the resistance wire 19 on the core 16.

For rotating the terminal 27 of the rheostat the cover 28 of the rheostat is provided with a rotatable button 29 which extends through the cover and is confined in place by a split ring 30. The knob is provided with a projection 31 somewhat similar to a screw driver point which engages in a kerf 32 in the rheostat terminal. When the knob 29 is manually turned the terminal may be rotated axially to swing the contact arm 28 along the resistance coil 26 of the rheostat.

When the roller is heated to the desired temperature the device may be moved over the work by manipulating the handle 21 and will smooth the work and dry the same simultaneously in minimum time and with little manual effort.

When the device is not in use it is supported upon a stand 33 which is simply a blank of sheet metal having the central portion pressed upwardly from the edge portions and dished as shown at 34 to receive the roller 13.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

An electric roller iron comprising a hollow yoke having enlarged conical shaped ends having reduced circular portions forming aligned hollow shafts, conductor rings fixed within the shafts, a hollow roller mounted to turn freely on the shafts, a core of insulating material within the roller having its ends reduced and fixed within the shafts, conductor rings carried by the reduced ends of the core and fitting within and contacting with said first conductor rings, a resistance coil on the core having its end connected to said second conductor rings, conductor wires in the yoke connected to said first conductor rings, and a handle on the yoke.

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