



# UNITED STATES PATENT OFFICE

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## ELECTRIC IRON

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1 Claim. (Cl. 38—77)

This invention relates to an electric iron, the object of the invention being to provide the iron with automatic means for keeping the water level in the tank of the iron constant and without necessitating the frequent refilling of the tank by the operator.

Another object of the invention is to provide means whereby the steam from the iron can be caused to pass through perforations in the bottom thereof to contact articles being pressed or to have the steam pass through a hose or conduit to a remote point or to escape into the atmosphere.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which—

Figure 1 is an elevational view showing the parts of the invention associated with an iron.

Fig. 2 is a vertical sectional view through the iron.

Fig. 3 is a view in section through the water receptacle.

Fig. 4 is a sectional view through the steam tube with the valve therein in elevation.

In these views the iron is shown at A and it is provided with a tank 1, which is heated by an electric coil 2 in the usual or any desired manner, the connections from the coil to an electric supply being shown generally at 3. A pipe 4 extends into the tank 1 through a nipple 5 in the upper part of the iron in one end thereof and this pipe is adjustably secured in the iron by the nuts 6 so that the distance the lower end of the pipe is from the bottom of the tank can be adjusted to regulate the level of the water in the tank. A hose 7 is connected to the outer end of the pipe in any suitable manner and said hose is connected to a water container 8 by a cock 9 and said water container is provided with a filling nipple 10 in its top closed by a cap 11 in a fluid tight manner.

Of course the water container must be held in an elevated position so the water therefrom will pass through the hose 7, when the cock 9 is open, through the pipe 4 to the tank 1. When the water level in the tank closes the lower end of the pipe the flow of water will be stopped as of course no air can enter the container. However, as soon as the water level in the tank drops air

will enter the container 8 through the hose 7 and thus the water will again begin to flow into the tank until the water level closes the lower end of the pipe. Thus the water level in the tank 1 is automatically maintained and there is no necessity for the user to stop work and refill the tank, as in irons as now constructed.

A vertically arranged tube 13 passes through the iron and has its lower end connected to a downwardly flaring member 14 fastened to the bottom of the iron and covering the perforations 15 formed in the bottom of the iron. The upper end of the tube passes through the top of the iron and this end is closed by a cap 16 and a branch tube 17 extends upwardly and outwardly from the upper portion of the tube 13. A valve 18, made in the form of a piston is slidably arranged in the upper portion of the tube 13 and has a stem 19 connected therewith which passes through the cap and has a handle 20 at its upper end. A pin 21 extends from the upper portion of the stem and is adapted to engage the bayonet slot 22 formed in the cap for holding the valve 18 in lowered position. When in lowered position the valve 18 will pass below a port 23 in the tube 13 and below the plane of the part 17, whereby steam will pass through the port 23 and pass through the part 17. A spring 25 normally holds the valve in position closing the part 17 and opening the port 23. In this position of the parts steam will pass through the port 23 and flow downwardly through the pipe 13 and pass through the perforations 15 in the bottom of the iron and contact articles being ironed.

When it is not desired to use the steam, the valve is lowered and held in lowered position by the pin 21 engaging the bayonet slot 22 and the steam will pass through the port 23 and escape through the part 17. If desired a hose can be connected to this part 17 for leading the steam to a distant point or for use in steaming an article or object.

Thus it will be seen that I have provided means for automatically maintaining the water in the tank 1 of the iron at a constant level which removes the necessity of the user frequently refilling the tank, with means for supplying the steam to the article being ironed and cutting off the steam supply to the article whenever desired.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided

that such changes fall within the scope of the appended claim.

What is claimed is:

An iron having a hollow top forming with the bottom of the iron a steam chamber therein, said bottom having adjacent the front end thereof a group of steam outlet apertures therein, a steam conducting tube depending through the top of the iron directly over said group of apertures and projecting out of said top, said tube having a steam inlet port therein within the chamber adjacent the top of the same and being provided with a forwardly and upwardly inclined vent branch above said port extending out of said top,

a downwardly flaring member on the bottom of the tube fitting against said bottom and spanning said group of apertures, a plunger-type spring tensioned valve in the upper end of the tube normally closing said branch and opening said port and slidable into a downward limit of movement to open the branch and close the port, said valve having an upstanding stem extending out of the top of the tube for moving the valve under finger pressure exerted on the stem, and cooperating devices on said stem and in said tube, respectively, for locking the stem and valve down in said limit of movement thereof.

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