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2,920,406

IRONING DEVICES

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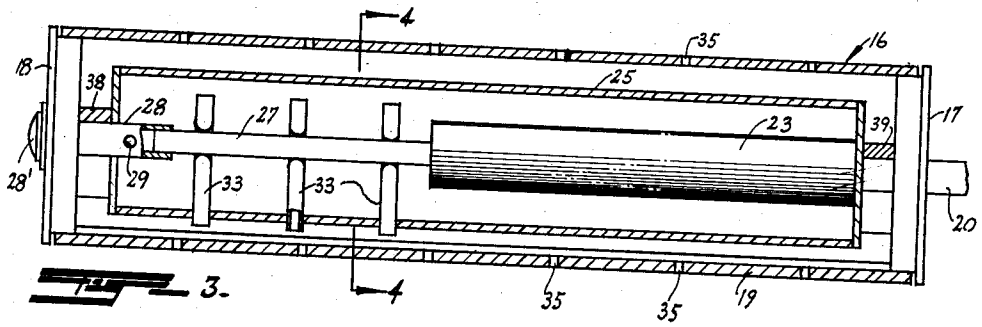


Fig. 3.

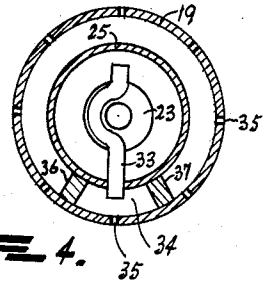


Fig. 4.

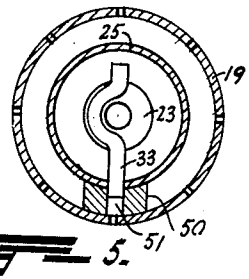


Fig. 5.

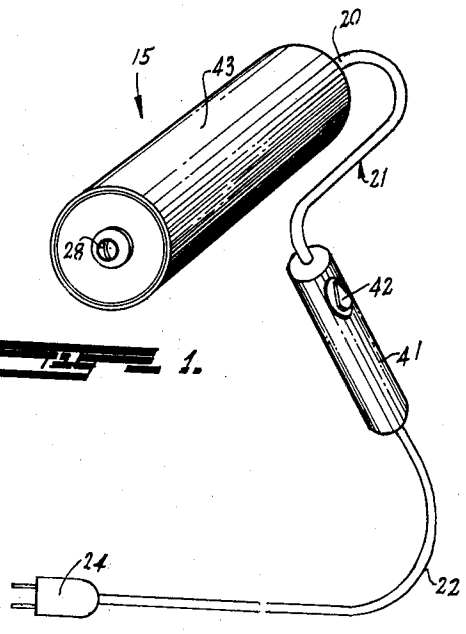


Fig. 1.

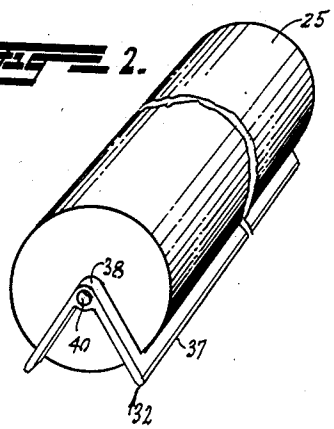


Fig. 2.

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IRONING DEVICES

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5 Claims. (Cl. 38—100)

The present invention relates to pressing irons and more particularly to a hand type ironing roller.

An object of this invention is to provide a novel and improved ironing roller affording a steam discharge which is localized to the region actually being pressed.

Another object thereof is to provide a novel and improved construction for an ironing roller of the character mentioned, in which the heating means for the roller, serving also to generate a steam supply, as well as the water tank, are both housed within such roller.

A further object of this invention is to provide a novel and improved ironing device of the kind set forth, which is simple in construction, easy to use and efficient in carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For the practice of this invention, one form it may assume, comprises a perforated, outer tubular roller which is journalled on the horizontal free arm of a goose neck handle. Interiorly of such roller, there is a cylindrical water tank and an electric heatnig unit of tubular form is within the tank. All components within said roller are concentric therewith and fixed to the goose neck arm which serves as the shaft for the outer roller to rotate on.

The tank carries an endless wiper which contacts the interior surface of the outer roller and has an opening which serves to localize the steam flow to the region of the outer roller which at any instant does the actual pressing. When the pressing device is in use position, (it is always so maintained), said opening in the wiper faces downwardly. There is at least one tubular element fixed through the bottom portion of the tank's wall, by a water-tight connection, through which the generated steam issues, then flows through the steam-localizing opening aforesaid and finally discharges onto the article being pressed in only that region where the actual pressing is done. The water in the tank is replenished through a closable opening which is accessible at an end of the roller.

In the accompanying drawings forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

Fig. 1 is a perspective view of an ironing roller embodying the teachings of this invention.

Fig. 2 is a perspective view of the water tank and the wiper means carried thereby.

Fig. 3 is an enlarged central longitudinal section thereof.

Fig. 4 is a section taken at line 4—4 in Fig. 3.

Fig. 5 is a section simliarly taken as in Fig. 4, but of a slightly modified embodiment.

In the drawings, the numeral **15** designates generally a roller ironing device comprising a hollow cylinder or drum **16**, made up of the disc members **17** and **18** which close the ends of the perforated outer tube **19**. This hollow outer cylinder is journalled on the horizontal free arm **20** of a goose neck **21** which is of tubular stock so that it holds therethrough an electric cord **22** connecting the

heating element **23** for the application of electrical energy thereto. Said cord terminates in the usual plug **24** for connection to a power outlet. The heating element **23** is of tubular form and is securely mounted on said arm **20** which serves as the shaft for the drum **16** to rotate on. The numeral **25** denotes a hollow drum or casing which serves as a water tank secured to said arm **20** in any suitable manner so that it is fixed thereto. The heating element is within the tank and both of them are within the outer drum **16** and in concentric relation therewith. The gooseneck arm **20** is through the heating member **23**, ends therein and presents a pin **27** extending axially into the tank **25** to support a filling tube **28**. This tube **28**, fits through a hole in the end disc **18** and through a hole in the end wall of the tank **25**. A plug **28'** is removably fitted in the external end of said tube. Said tube is provided with a hole **29** through its wall within the tank, so that upon removal of the closure plug **28'**, the tank may be supplied with water therein through said tube **28**.

An endless wiper member indicated generally by the numeral **32**, made generally of hard rubber or nylon, is securely mounted on the tank **25**, for wiping contact with the interior surfaces of the end caps **17**, **18** and the perforated drum **16**, to all of which said edging extends, thereby confining all steam coming out of the tank **25** through the lower ends of the tubular members **33**, to the chamber **34**, and hence localizing the steam for exit onto the material being ironed, only from perforations **35** of the outer drum **16** which are at any instant at the bottom of such drum. Said wiper **32** is comprised of the longitudinal blades **36**, **27** whose corresponding ends are connected integral with the angular pieces **38**, **39**; the latter being provided with holes, one in each, as at **40**, which permit the mounting of the tank **25**.

The device **15** is provided with a suitable handle at **41**, which includes a switch **42** to apply or cut off the electrical current supply to the heating element **23**. It is to be noted that the spaced upright tubes **33**, which are secured water-tight through the lower portion of the wall of the tank and extend upwardly so that their upper mouths are near the upper portion of the wall of the tank, are only in the free end of the device, so that no water will spill through the perforations in the outer drum when the tank is being filled, since for filling the tank, it would be normal to position the device with the cap **18** upward.

The manner of operation is evident from the above description and therefore needs no further explanation, than to say that for use, the tank is about half filled with water.

It is preferred to have the outer drum **16** covered with a sleeve of porous fabric material **43**.

If desired, the blade parts **36**, **37** may be a single wide wiper as shown at **50** with holes **51** therethrough into which the lower ends of the tubes **33** project, as illustrated in Fig. 5.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiments shown herein shall be deemed illustrative and not restrictive and that the patent shall cover all patentable matter herein set forth; reference being had to the following claims rather than to the specific description herein to indicate the scope of this invention.

I claim:

1. In an ironing device of the character described, a member having a handle part to be held in the hand of the user, a hollow, cylindrical heat-conductive drum whose curvilinear wall is perforated, journalled on said member away from said handle part, for axial rotation; the drum being horizontal in normal use of the device, a casing serving as a water tank within said drum, at least one tubular element positioned through the lower portion

of the wall of the tank and there secured to said wall in water-tight relation therewith, a heating means within the drum, adapted when actuated to heat the drum and tank; said heating means and tank being fixed to said member and wiper means within the drum, extending fixed from the tank in wiping contact with the interior surface of the drum and confining a space in the lower part of the drum; said space being communicative only with the perforations in that portion of the drum which is lowest at any instance when the device is in use position; the lower opening of said tubular element being communicative with said space.

2. An ironing device as defined in claim 1, wherein the mentioned wiper means has a part extending downwardly from the tank; said wiper part having a hole therethrough which constitutes the mentioned space; the lower end of said tubular element being snugly fitted in communicative connection with said hole which is in the wiper.

3. An ironing device as defined in claim 1, wherein the wiper means constitute an endless member extending across the ends of the drum and along two spaced lines along the drum; said member encompassing the lowermost portion of the drum wall when the device is in use position; the lower end of said tubular element being between said spaced lines.

4. An ironing device as defined in claim 1, wherein the tank, drum and heater means are concentric and said heater means is of the electrically-operated type; the tubular element being nearer to one end of the drum than it is to the other end of the drum.

5. An ironing device as defined in claim 1, wherein the tubular element is nearer to one end of the drum than it is to the other end of the drum and wherein said device includes a tubular member positioned along the axis of the tank through the end wall of said tank which is nearest said tubular element; said tubular member extending to the exterior of the drum and into the interior of the tank and a removable closure element closing said tubular member at the exterior of the drum.

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