STEAMING AND IRONING APPLIANCE

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ABSTRACT

A steaming and ironing appliance which is suitable to be removably attached to the base plate of a conventional domestic iron comprises a hollow body having a flat bottom plate generally shaped in accordance with the shape of a conventional domestic iron and an upper plate suitably conformed for supporting the base plate of a domestic iron, a pair of coil springs with one end of each being fixedly attached to symmetrically opposed attaching means disposed on each of the appliance’s side walls and with the other ends of the coil springs being attached to a rigid fastening member for removably fastening the iron against the supporting upper plate of the appliance. The hollow body of the appliance is provided with water input means and the underside of the base plate is provided with elongated recesses wherein there are arranged passages for delivering steam to a garment being ironed.

2 Claims, 3 Drawing Figures
STEAMING AND IRONING APPLIANCE

FIELD OF THE INVENTION

The present invention relates to an appliance to be attached to conventional domestic irons and, more particularly, to such a device which is capable of steaming a garment as it is ironed. The appliance according to the instant invention is suitable to be removably attached to any kind of domestic iron in such a manner that it may be used as determined by the particular conditions under which the ironing is being conducted.

BACKGROUND OF THE INVENTION

The domestic irons equipped with means to apply steam to the goods being ironed are provided with water reservoir means permanently contained within the iron body. This arrangement often gives rise to failures either in the heat applying means or in the steam supplying means and, therefore, it is necessary to terminate the steam applying function of the iron. Further, because of the particular design features embodied in the steam irons, such irons are normally expensive and require careful handling and maintenance.

SUMMARY OF THE INVENTION

The shortcomings of prior art steaming irons are satisfactorily overcome by the instant invention. It is an object of the present invention to provide an inexpensive and simple appliance suitable to be removably attached to domestic irons, regardless of their size and design, in such a manner as to enable an iron fitted with such an appliance to apply steam to the garment being ironed.

In furtherance of these and other objects, a principal feature of the present invention is an appliance having a generally flat-based hollow body having a configuration substantially designed to correspond with the counterpart shape of conventional domestic irons. In other words, the appliance has a widened rear portion which is forwardly tapered. The appliance body is provided with a top supporting plate or deck which corresponds to the shape of the base plate of a conventional iron. Therefore, the slope of the forward edges of the supporting plate toward the longitudinal axis thereof is substantially greater than the slope at its side edges in its rear portion.

Adjacent side edges located near the front tapered end of the supporting plate are provided with upwardly extending flanges slightly and equally sloped toward the center axis. The tapered front end portion of a conventional iron base plate may be lodged between the so arranged pair of flanges. In the conventional domestic irons, the side walls of its ironing base are outwardly tapered toward the ironing plane, thereby making the above feature specially adaptable with the front end portion of the iron base plate. Therefore, the tight and form engagement of the front end portion of the iron base plate within the pair of flanges is assured due to the cooperating conformation therebetween. The appliance body is provided, at symmetrically opposed points located in its side walls, with means for fixedly attaching one end of each one of a pair of symmetrical coil springs. The other ends of the springs are in turn fixedly attached to a rigid fastening member. The fastening member is manually pulled back against the force of the coil springs to a position which allows the fastening of the same against a rear portion of the iron body.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of an appliance attached to a conventional domestic iron.

FIG. 2 is a perspective view showing the joint relationship of the appliance and a domestic iron prior to attachment.

FIG. 3 is a longitudinal cross section view illustrating an embodiment of the interior of the appliance according to the present invention.

For a better understanding of the invention, a possible embodiment thereof will now be described with reference to the attached drawing, it being understood that this embodiment is to be intended as merely exemplary and in no way limitative.

DETAILED DESCRIPTION

Referring to FIGS. 1 and 2, numeral 1 shows the general body of a conventional domestic iron provided with a conventional handle 2 and an electrical connector 4, shown in dotted lines. Numeral 6 generally illustrates the hollow body of the appliance according to the present invention provided with a flat bottom plate 10 of a design substantially corresponding to the shape of the ironing base plate of a conventional iron.

The appliance is provided with an upper flat supporting plate 17 suitable for supporting and engaging the base plate 5 of the iron. The hollow body 6 is provided with adjacent flanges 12 upwardly extending from the opposed upper edges of the appliance's side walls located near the tapered end portion of the supporting plate 17. The adjacent flanges are both sloped toward each other in such a manner as to engage the front end portion of the iron base plate 5. Due to the outwardly and downwardly sloped configuration of the side walls of the forward tapered end of the iron base plate 5, the inwardly inclined flanges 12 accommodate the tapered end of the base plate 5. The appliance body 6 is further provided with attaching means 9 symmetrically arranged in its side walls for fixedly attaching one end of each of two coil springs 3 to a corresponding side wall of the body 6. The other end of each of the coil springs 3 is attached to a rigid fastening member 7. The springs 3 and fastening member 7 are manually stretched to a position which allows the seating of the fastening member 7 against a rear portion of the iron body as shown in FIG. 1. The iron base plate 5 will thus be prevented from side and axial shifting because of its engagement with flanges 12 in cooperation the downwardly and forwardly directed force of springs 3. Similarly, the same attaching means will prevent vertical shifting between the iron and the associated appliance.

The hollow body 6 comprises an inner container for receiving water through the one-way valve means 8 which is laterally disposed in a side wall of the appliance. From the inner space, the steam will pass through the openings provided in the elongated recesses 11 arranged on the underside of the forward portion of the base plate 10.

Referring to FIG. 3, the inner hollow space in the body 6 is partitioned by the transverse wall 13 into a rear compartment 14 and a forward compartment 15. The water supplied to compartment 14 through the valve means 8 is vaporized and the steam so generated passes through openings 16 provided in the transverse
wall 13, above the water level, toward the front compartment 15. From compartment 15 the steam is applied, through openings arranged along the elongated recesses 11 provided in the underside of the bottom portion of compartment 15, to the garment as it is ironed.

In operation, the front end portions of the side walls of the iron base plate 5 are engaged against the inner walls of the pair of adjacent flanges 12 and the rigid fastening member 7 is pulled back for seating it against a rear portion of the iron body. In this way, the iron is fixedly seated on the supporting plate of the appliance so that side or axial shifting or vertical lifting is prevented.

The hollow body 6 of the appliance comprises an inner container for receiving water through a suitable means such as an one-way valve 8. The base or bottom plate 5 of the appliance is provided with small openings arranged along the elongated recesses 11 so that as the steam generated in the water container builds up pressure, it is released through the openings onto the garment being ironed.

The openings are so sized as to allow the flow of little, if any, liquid water therethrough. Preferably, but not necessarily, the inner space in the hollow body 6 of the appliance is divided by a transverse wall 13 into a rear compartment 14 for receiving water and a forward compartment 15 for receiving steam from the rear compartment 14. The steam passes from the rear compartment 14 to the front compartment 15 through the openings 16 provided in the transverse wall 13 and then through the openings arranged in the elongated recesses 11 of the appliance's base plate 10.

The foregoing description of the specific embodiment will so fully reveal the general nature of the invention that others can, by applying current knowledge, readily modify such specific embodiment and/or adapt it for various applications without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiment.

It is to be understood that the phraseology or terminology employed herein is for the purposes of description and not of limitation.

What is claimed is:

1. An appliance to be firmly but removably attached to the base plate of a conventional domestic iron, comprising a hollow body having a flat bottom plate generally shaped in accordance with the shape of a conventional domestic iron and an upper plate suitably conformed for supporting the base plate of said iron, said supporting upper plate being provided with a pair of adjacent flanges upwardly extending from opposed edge portions near the tapered front end of said supporting plate, said adjacent flanges being sloped toward each other so as to define therebetween a space for accommodating the tapered front end of said iron; a pair of coil springs with one end of each being fixedly attached to symmetrically opposed attaching means disposed on each side of the appliance side walls and with the other ends of said coil springs being attached to a rigid fastening member for removably fastening said iron against said supporting upper plate of the appliance when said fastening rigid member is seated on a rear portion of the iron body against the downward force of said coil springs; and wherein said hollow body of the appliance is provided with a one-way water input means and the underside of the plate base is provided with elongated recesses wherein there are arranged passages for delivering steam therethrough to a garment being ironed.

2. An appliance for conventional irons according to claim 1, wherein said hollow space is partitioned, by means of a transverse wall provided with openings arranged in its upper margin, into one water receiving and steam generating compartment provided with a one-way water input means and a compartment from which steam passing through said openings is delivered to the garment being ironed through passages arranged in the bottom thereof.

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