Dec. 14, 1943. D. K. FERRIS 2,336,727

DOMESTIC APPLIANCE

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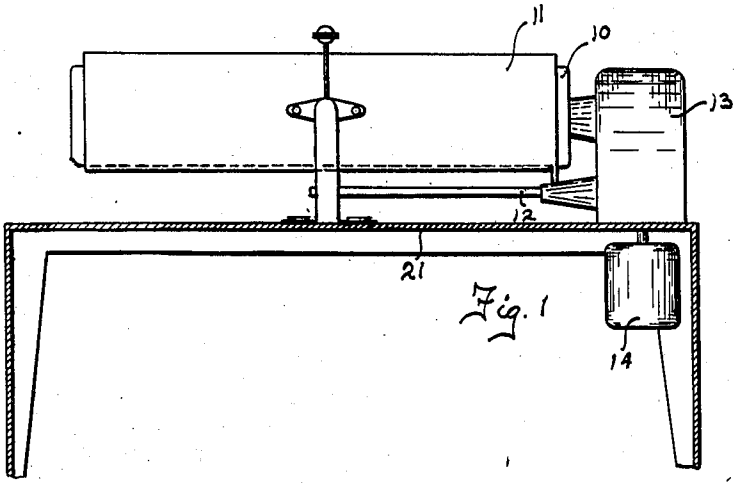


Fig. 1

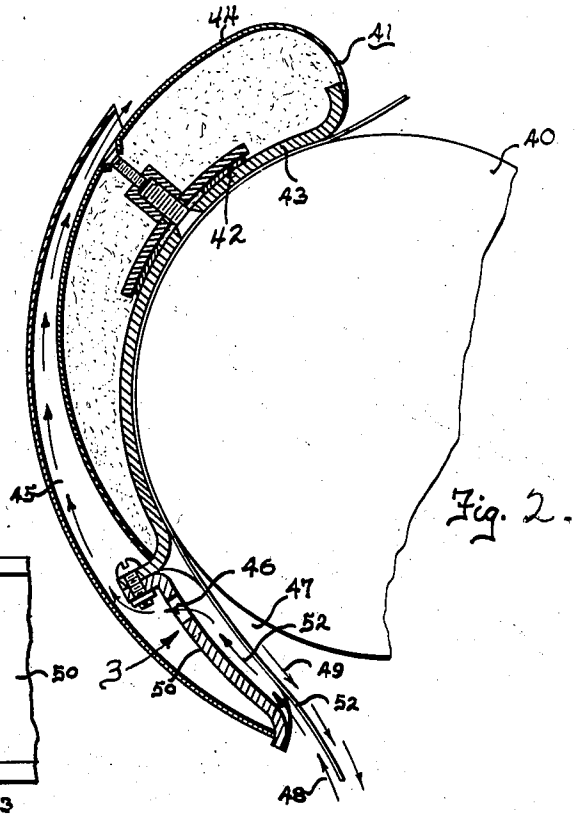


Fig. 2.

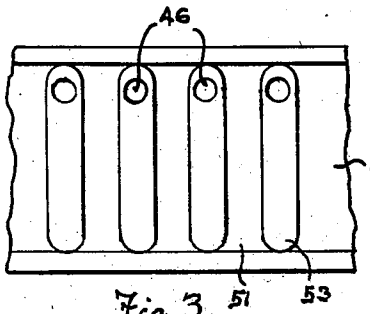


Fig. 3.

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DOMESTIC APPLIANCE

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2 Claims. (Cl. 38—14)

This invention relates to domestic appliances, and more particularly to ironing machines.

An object of this invention is to provide an ironing machine with means for removing excess moisture and water vapor from the articles being ironed, to prevent the articles from being excessively wrinkled after they have been ironed.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing, wherein a preferred form of the present invention is clearly shown.

In the drawing:

Fig. 1 is a rear elevation, with certain parts in cross-section, of an ironing machine embodying features of my invention;

Fig. 2 is a cross-sectional view of a portion of an ironing machine in which convection currents are used to remove the moisture and water vapor;

Fig. 3 is a side view of the plate 50, shown in Fig. 2, taken in the direction of arrow "3" in Fig. 2.

An ironing machine embodying features of my invention includes provisions for removing excess moisture and water vapor from the articles being ironed, while they are in a heated condition, and before they have been laid on a support after the ironing operation. Heretofore, when articles have been ironed in an ironing machine, they have been allowed to cool while they contained a certain amount of excess moisture or water vapor, with the result that, when they are placed on a support, they become excessively wrinkled. I have made provisions for removing this excess moisture or water vapor to a sufficient extent to prevent such excessive wrinkling.

The ironing machine may include the movable roll member 40 and the shoe member 43 (generally indicated at 11) which is relatively stationary during the ironing operation. The shoe member 11 is provided with electrical heating means, and may be rocked towards and away from the roll member 40 by a rocking shaft 12. The roll 40 and the shaft 12 are operated through suitable transmissions, now well-known in the art, contained in the casing 13, and deriving their power from a motor 14. The articles to be ironed, diagrammatically indicated at 15, pass between the ironing members 40 and 43 and emerge at zone 47, in a heated condition, and containing a substantial amount of moisture and water vapor. Means for removing this moisture and water vapor are provided in the form of means for directing a stream of air against these articles, as they emerge at the zone 47.

The stream of air is directed against the articles being ironed by convection currents. The shoe member may be provided with electrical heating means 42, with an ironing face plate 43, and with a shroud 44. While a certain amount of insulation may be placed within the shroud 44, the insulation is such that the shroud receives heat from the heating means 42 in sufficient quatities to create convection currents along the rear face of the shoe. A chimney-like channel 45 may be formed along the rear face of the shoe, and openings 46 may connect with the channel 45, and may be placed adjacent to the zone 47 where the articles 52, being ironed, emerge from between the ironing members 40 and 41. Convection currents, indicated by arrows 48 are thus induced adjacent to the articles 52, and these currents remove water vapor and excess moisture from the articles 52 before they reach the usual table top or support. The motion of the articles 52 is indicated by the arrows 49.

In this construction, the usual shoe construction may be provided with a depending plate 50, in which the openings 46 are formed. The plate 50 is provided with ridges 51, to support the articles being ironed slightly away from the main body of the plate 50, thus forming air channels 53 leading to the openings 46, to enhance the flow of the convection currents past the articles being ironed.

While the form of embodiment of the invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. An ironing machine comprising a rotatable ironing member and a shoe ironing member, heating means for said shoe member, and means forming an air stack adjacent said shoe member with its inlet adjacent the zone where articles being ironed emerge from between said ironing members whereby a convection air current is induced past and through said articles while in a heated condition.

2. An ironing machine comprising a rotatable ironing member and a shoe member, the shoe member having a surface with a contour to contact said ironing member in a substantial area and having an extension along the trailing edge of said shoe member and spaced from said roll and extending under clothes which have been ironed, spacing means having laterally spaced projections at the surface thereof facing the rolls forming air channels extending between said clothes and extension, and an air stack adjacent said shoe member in communication with said channels for causing flow of air therethrough.

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