Jan. 24, 1950 L. R. MUELLER 2,495,468

VENTILATED IRONING BOARD

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Fig. 1.

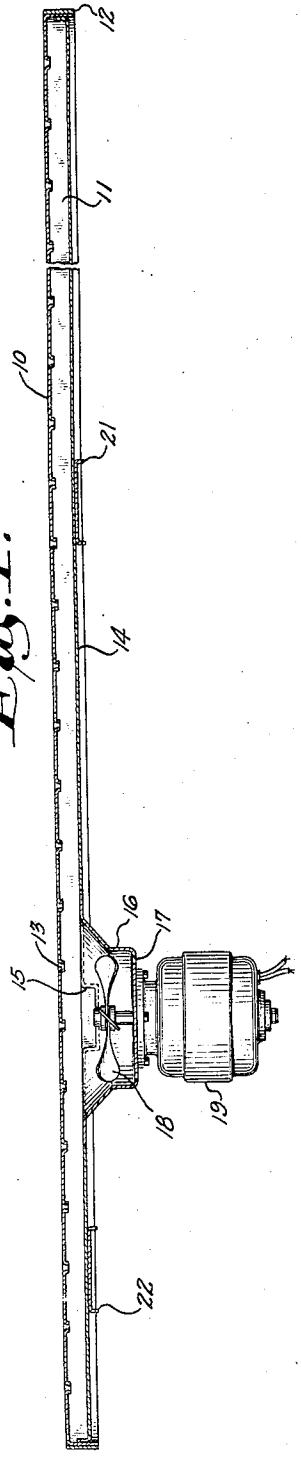
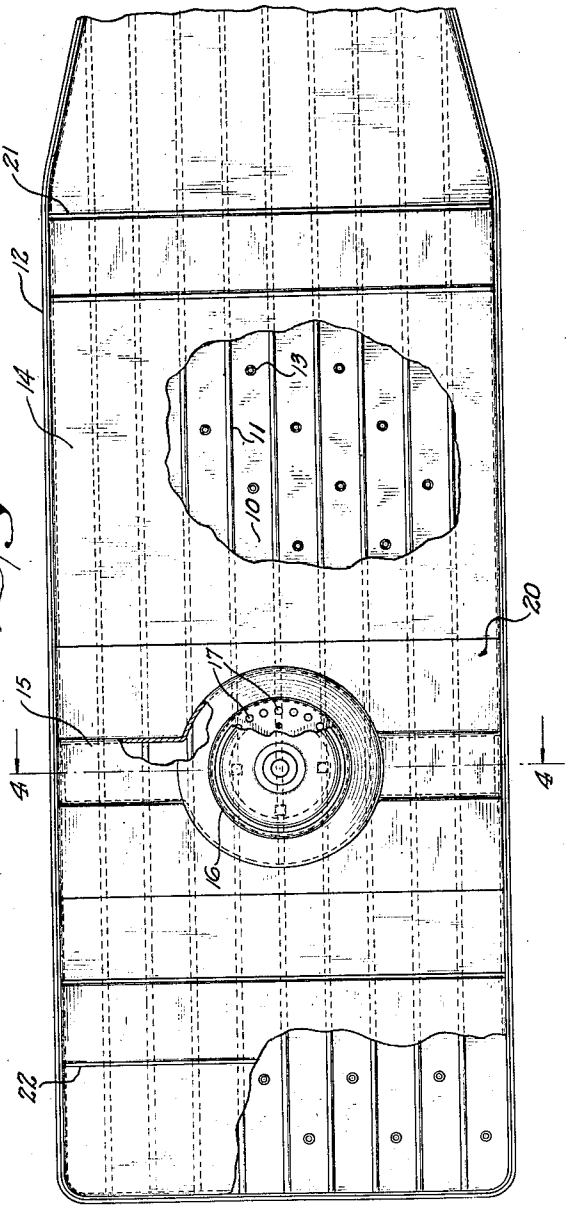


Fig. 2.



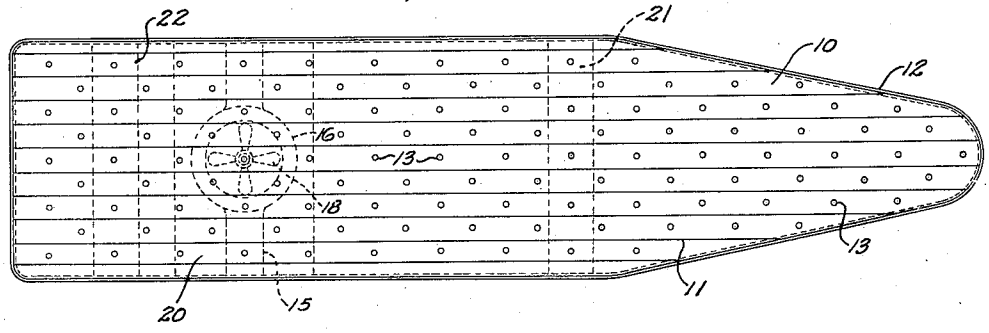
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Fig. 3.



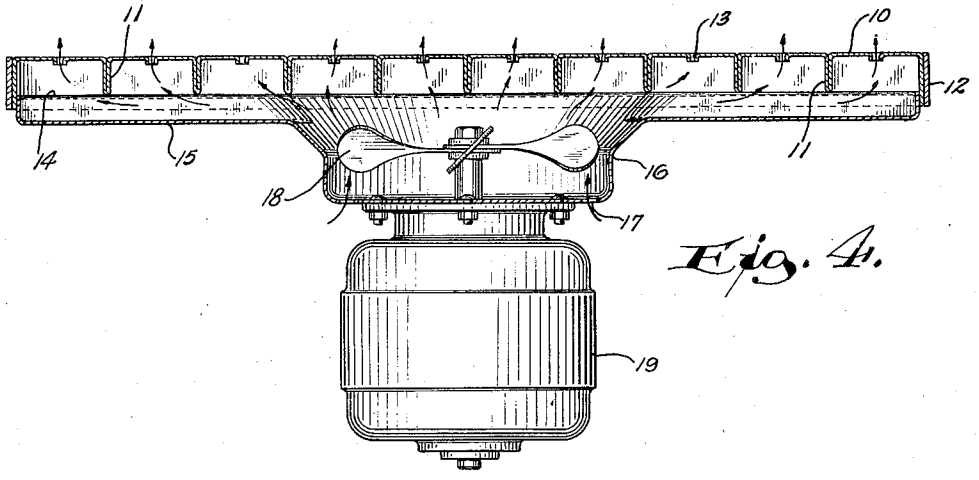


Fig. 4.

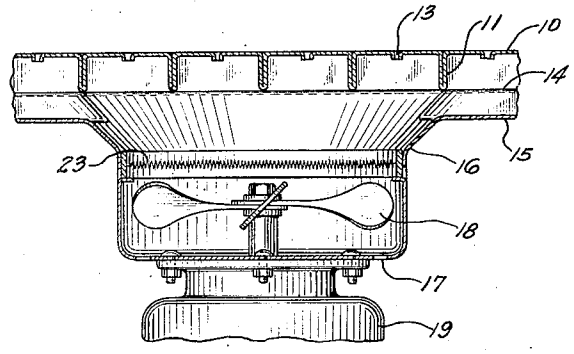


Fig. 5.

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UNITED STATES PATENT OFFICE

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VENTILATED IRONING BOARD

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Application June 13, 1946, Serial No. 676,374

1 Claim. (Cl. 38—104)

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This invention relates to improvements in ventilated ironing boards and particularly to boards providing forced ventilation for the pad and cover set.

Ironing boards have pads and cover sets to form a base for the fabric being ironed. In use these pads and cover sets accumulate moisture and this lengthens and makes more arduous the task of ironing.

It is an object of this invention, therefore, to provide an ironing board which will keep moisture from accumulating in the pads and cover sets used with the board.

Another object of the invention is to provide an ironing board which will assist the ironing process by also removing moisture from fabric being ironed.

These objects are accomplished by providing an ironing board which has a top containing a plurality of apertures positioned at intervals throughout its area and a bottom member forming with the top an air chamber or compartment. The bottom member has an air intake tunnel in which is mounted air moving means operated by an electric motor or other engine. The operation of the air moving means causes pressure to be created within the air chamber and forces air outwardly through the apertures in the top of the board. This air continually passes through any pad and cover set used with the board and any fabric placed on the board to be ironed. In the process of passing through, such air evaporates moisture from the pad, cover set and fabric and thus aids in the ironing process. In order to increase the rate of evaporation or absorption, the tunnel may be provided with a heating element through which air from the air moving means must pass as it enters the chamber. The heated air has a higher moisture removing capacity.

The novel features, which are considered characteristic of the invention, are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawings, in which:

Figure 1 is a sectional view taken on the longitudinal axis of an ironing board embodying the present invention;

Figure 2 is a fragmentary bottom plan view of the ironing board viewed in Figure 1 with parts shown broken away for clarity in illustration;

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Figure 3 is a top plan view of the ironing board illustrated in Figure 1;

Figure 4 is a sectional view taken on the line 4—4 of Figure 2; and

Figure 5 is a fragmentary sectional view of an ironing board embodying a modification of the present invention.

Referring to the drawings by reference numerals the ironing board comprises a metal top 10 which has integrally formed therewith longitudinally extending downwardly projecting reinforcing ribs 11. The top of the board is shaped like the conventional ironing board having a head and toe portion. The periphery of the ironing board is provided with a depending skirt over which is secured a reinforcing flange 12. The board thus formed is rigid and strong enough to support between its edges the weight placed thereon during the ironing process. A plurality of apertures designated at 13 are formed in the top 10 at spaced intervals along the areas between the ribs 11. The purpose of these apertures is to permit air to be discharged to the upper surface of the ironing board substantially throughout its entire area.

In order to provide an air distributing chamber or compartment a bottom member 14 is fastened to the underside of the top 10 so as to lie flush against the ribs 11. This forms a series of air channels or pockets extending longitudinally for the extent of the ironing board. To supply each of these channels with air under pressure, the bottom member 14 is provided with a distributing manifold 15 which extends transversely of the ironing board and communicates with each of the aforesaid channels. An air tunnel 16 communicates with the manifold 15 and has a cylindrical side portion merging into an upwardly and outwardly flaring inverted cone-shaped portion to blend and join with the bottom member 14 and distributing manifold 15. The air tunnel 16 is also provided with a circular bottom. As shown in detail in Figure 2, the bottom around its outer edge and at spaced intervals is provided with air intake openings 17. Within the air tunnel 16 is positioned an air-moving device such as a propeller 18 or other conventional type of air fan. To provide motive power for the propeller 18, an electric motor 19 is mounted on the outside of the bottom and is connected to the fan. Any commonly known switching means may be used to control the operation of the fan. It has been found of practical manufacturing advantage to form the distributing manifold 15 and air tunnel 16 as a separate unit indicated at 20 and subse-

quently weld such unit to the other parts of the bottom member 14. Transverse brace members 21 and 22 are secured to the bottom of the ironing board to furnish support for the customary type of folding legs (not shown).

In the ordinary use of an ironing board to iron materials the top is covered with a pad held in place by a cover set. These elements are well-known in the art and are therefore not described. During the ironing process it is essential to drive the moisture out of the material being ironed and give it a permanent set during such process. During such process moisture is collected in the pad and cover set which has a tendency to prolong such process. With the ironing board of this invention the propeller 18 forces air, taken in through the intakes 17, upwardly through the air tunnel 16 and into the distributing manifold 15 from whence it proceeds along each of the channels between the ribs 11 and escapes simultaneously through each of the apertures 13. Thus air is forced through the pad and cover set substantially over their entire area and prevents these members from accumulating moisture. At the same time a certain amount of such air will pass through the fabric positioned on the ironing board and aid the evaporation of any moisture in it.

If the air forced through the pad, cover set and fabric to be ironed is also heated above the ambient temperature, the effective rate of evaporation will be increased. To effectuate this a heating element 23 shown in Figure 5 is inserted between the propeller 18 and the upper end of the air tunnel 16. This element adds heat to the air which is forced through it and thus the air escaping through the apertures 13 is hotter than the surrounding air, keeping heat in the pad and cover set and causing any moisture absorbed therein to more rapidly evaporate.

Although only one embodiment of the invention is shown and described herein, it will be understood that this application is intended to cover such changes or modifications as come within the spirit of the invention or scope of the following claim.

I claim:

An ironing board comprising a flat metal top, a series of longitudinally extending laterally spaced top reinforcing ribs in contact with and supporting said top from therebelow, a bottom member lying flush against said ribs to form a series of air channels extending longitudinally of said board, a plurality of spaced apertures formed in said top and leading from said channels to the top of said board, a transversely extending opening in said bottom member between the ends thereof to provide a common access to all said channels, a unit secured to said opening comprising a distributing manifold positioned below and extending transversely of said bottom member and having the sides thereof secured to said opening, an air tunnel positioned below said bottom member and attached to the central part of said manifold, said tunnel having a cylindrical side portion merging into an upwardly and outwardly flaring inverted cone-shaped portion joined to said opening and said manifold, said tunnel having a circular bottom provided with intake openings, and an air moving device positioned within said air tunnel whereby air is brought in through said intake openings and directed upwardly through said air tunnel into said manifold and air channels.

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