Oct. 24, 1950 S. JACOWITZ 2,527,363

IRONING BOARD

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Fig. 1

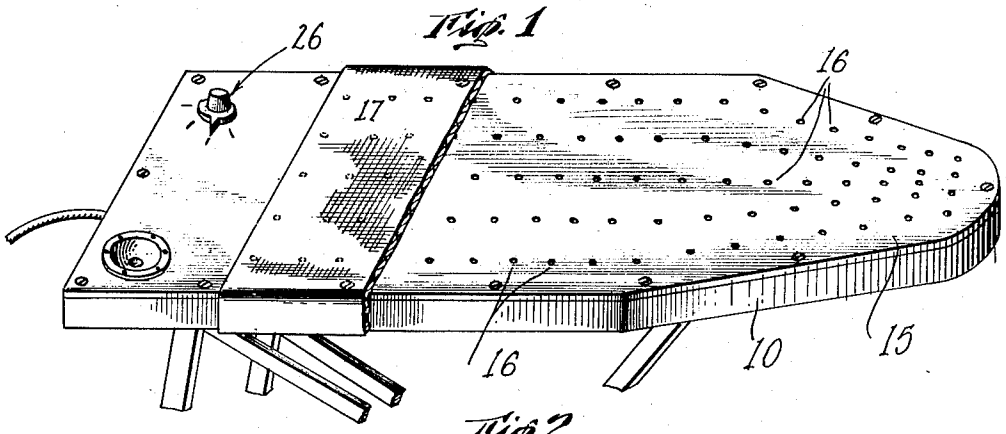


Fig. 2

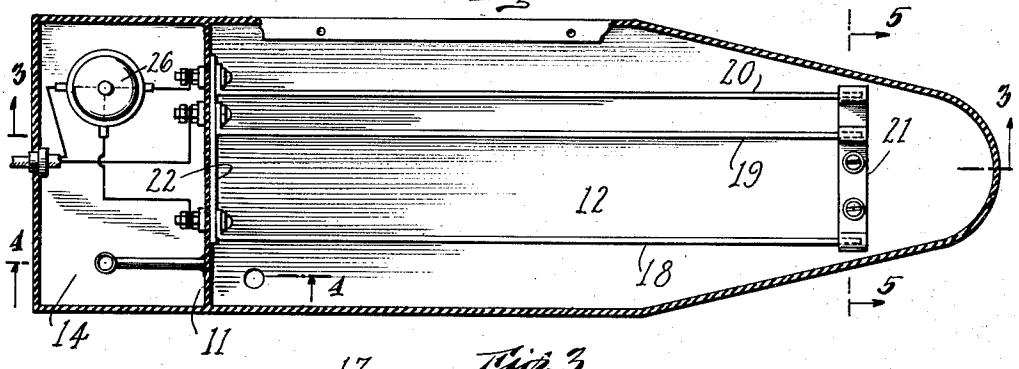


Fig. 3

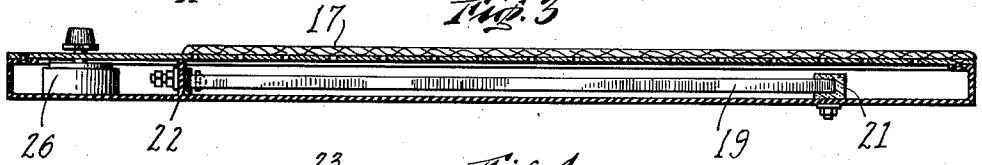


Fig. 4

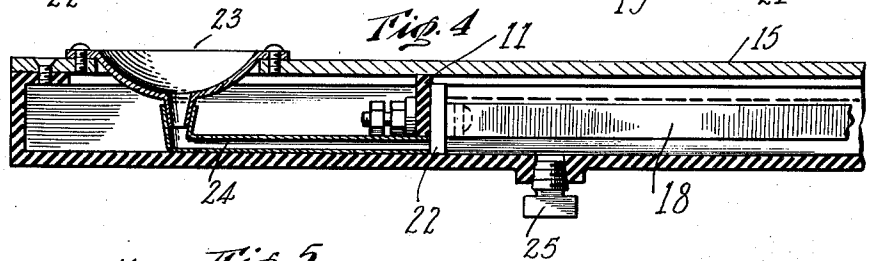
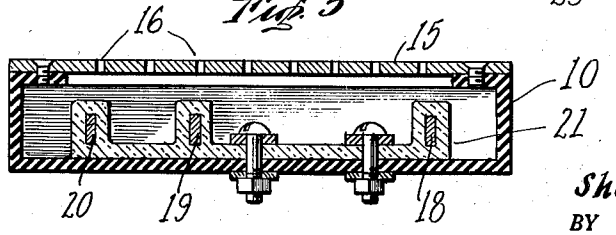


Fig. 5



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Fig. 6

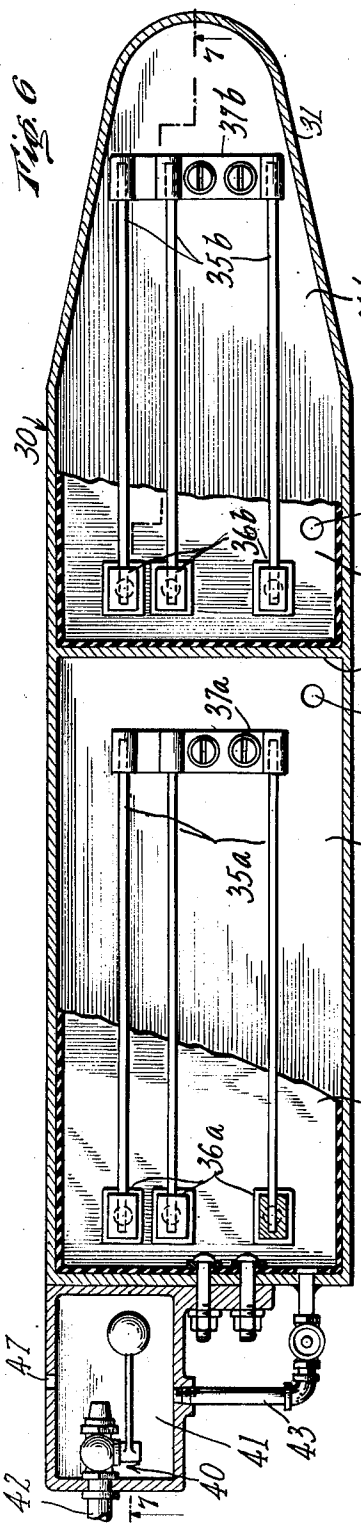


Fig. 7

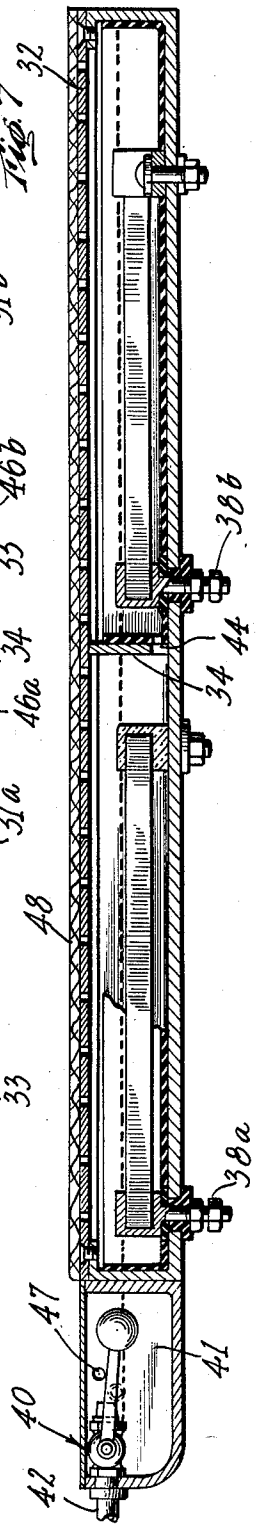
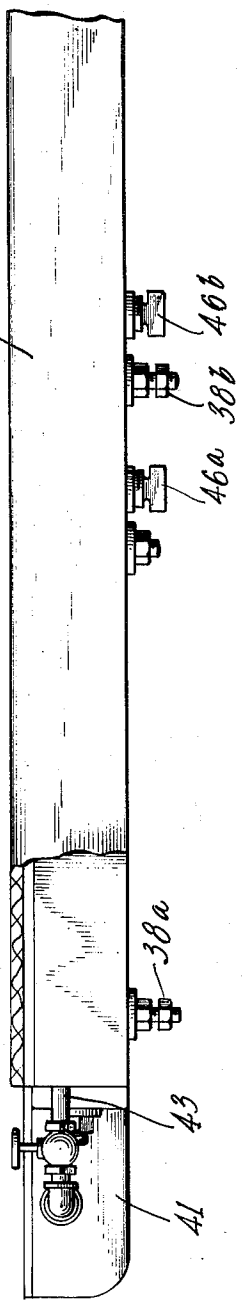


Fig. 8



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IRONING BOARD

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Application June 4, 1948, Serial No. 31,147

1 Claim. (Cl. 219—40)

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This invention relates to an improved ironing or pressing board, and particularly to an ironing board having means for generating low pressure steam.

It is common knowledge that articles must be dampened before ironing. Domestic laundresses "sprinkle" the clothes—often somewhat haphazardly—with the result that the article or garments are saturated in spots and completely dry in others, resulting in improper pressing. Steam generating flat irons, which purportedly eliminate the necessity for dampening the garments, are not completely satisfactory. The sole plate of the iron, being at a high temperature, superheats the steam, which therefore will not effectively dampen, and may, in fact, scorch, the garment; the water capacity of the iron is small, requiring refilling after about one half hour of use, and care must be taken when refilling a hot iron to avoid being scalded by water sputtering out through the fill opening.

I am aware that attempts have been made to produce ironing boards having reservoirs for hot water, the expectation being that vapor will rise through the perforated cover and dampen the article being ironed. I am also aware of the commercial pressing machines having a connection to a steam boiler, and controllable valves whereby the operator may cause steam to flow through the padded surfaces of one or both of the presser surfaces.

The hot-water reservoir structures are completely inadequate for providing the necessary dampening, especially in domestic boards, where the water capacity is necessarily very limited. Commercial pressing machines cannot be used for pressing fine articles; such work still necessitates manual dampening or the use of damp pressing cloths.

My invention provides an ironing board for either domestic or commercial use which incorporates means for generating a steady volume of steam according to the necessities of the work, the vapor or steam being always beneath the article being ironed and distributed uniformly thereover. Optionally, the board may be used as a conventional "dry" board. Basically, boards embodying my invention for domestic or commercial use are the same; I prefer, however, to provide the commercial boards with an automatic water feed and to sub-divide the structure so that one surface area may be steam generating and the adjacent area dry.

It is an object of the invention, therefore, to provide an improved ironing board which will

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eliminate the necessity of manually dampening or sprinkling articles to be ironed.

It is another object to provide an ironing board on which any material capable of being ironed, including starched material, may be satisfactorily ironed without preliminary dampening.

It is still another object to provide an ironing board as aforesaid having self contained means whereby steam may be generated for passage upwardly through a cover cloth and the articles thereon.

An additional object is that of furnishing an ironing board having means for generating steam, whereby articles which should not be pressed, such as articles made of velvets and the like, may be steamed to eliminate the wrinkles or creases therein.

Still another object is that of providing an ironing board having a plurality of water reservoirs and independently controlled steam generating means therein, whereby either or both of the available ironing surfaces may be used as steaming surfaces or the whole board or a portion thereof may be used as a "dry" board.

It is a still further object of the invention to provide an ironing board as aforesaid having improved means for generating steam or water vapor.

In the accompanying drawings:

Fig. 1 is a perspective view of an ironing board of the domestic type incorporating the present invention, the usual supporting stand being only fragmentarily shown;

Fig. 2 is a partial plan view, partly in section, with the cover portion removed;

Fig. 3 is a sectional elevation taken on lines 3—3 of Fig. 2;

Fig. 4 is an enlarged detail to show one form of filling means, the detail being in section on lines 4—4 of Fig. 2;

Fig. 5 is an end elevation, in section, on lines 5—5 of Fig. 2;

Fig. 6 is a top plan view, partly in section and with the cover plate removed, showing a presently preferred form of commercial board;

Fig. 7 is an elevational section on lines 7—7 of Fig. 6; and

Fig. 8 is a side elevation of the board shown in Fig. 6, the supporting stand or the like being eliminated.

Referring to the drawings for a more complete description of the invention, Figs. 1 and 2 show an ironing board of the domestic type; said board comprises a rigid, hollow base 10, the walls of which provide, in association with a transverse

wall 11, a relatively shallow reservoir 12 and a control and connection chamber 14. A cover plate 15 is removably secured to the base. Any suitable support structure, preferably of the usual foldable leg type, may be provided.

The base and cover may be of reinforced plastic; the material must be rigid enough to stand the pressure of the iron, and sufficiently rugged to be resistant to chipping or cracking while being folded and stored. The base 10, as well as the cover 15, may equally effectively be formed from the lightweight metals; in this event, however, a lining or internal coating of insulation material (such as is hereinafter described) should be applied to both the reservoir and connection portions.

The cover 15 is formed with a plurality of openings 16 which are disposed throughout the reservoir area. It is understood that a fabric blanket or similar porous pad 17 will be employed with the board, as is usual.

Disposed within the reservoir 12, in mutually insulated spaced relationship, are a plurality of—for example, three—elongate electrodes 18, 19, 20. The said electrodes are desirably of bronze or equivalent non-corrosive material and may (see Fig. 2), extend substantially the length of the reservoir. The electrodes are in mutually insulated relationship. They may be supported at one end in an insulating block 21, and at their opposite ends clamped to an insulating strip 22 which may be secured to the wall 11. Wall 11 prevents the ingress of water to the chamber 14, and therefore the wall openings for the accommodation of the illustrated connection terminals must be suitably sealed.

A funnel or the like 23 of non-conductive material, communicates with a tube 24 which opens into the reservoir 12, and provides means for filling the reservoir to a level which submerges the electrodes but is suitably below the undersurface of the cover 15 to provide a steam space and prevent water from surging or splashing through the openings 16. For simplicity the bottom of the funnel cup is at the desired reservoir water level and the user therefore fills the reservoir until the water is visible at the bottom of the funnel cup. A drain plug 25 has been conventionally shown.

The electric circuit is completed from either or both of the outer electrodes to the central electrode; a conventional three-way switch 26 establishes the desired connection with a source of alternating current power. The water content of the reservoir completes the circuit across the electrodes, and interposes a certain resistance value in the respective circuits; by placing the electrode 20 closer to electrode 19 than electrode 18 is to 19, the wattage output is higher for the first-named combination than for the latter; and with both of the electrodes 18 and 20 in circuit with electrode 19, a third wattage output, or heating effect, may be obtained. Three "heats," and therefore three steam-generation values, are obtainable. If the board is to remain in use for a long period—I have found that a reservoir content of practicable volume will provide sufficient water capacity for three hours of steady use. The increase in resistance as the water level drops below the upper edges of the electrodes may be compensated by selecting an appropriate one of the circuits to maintain the desired steam generation.

The illustrated heat generation means possesses substantial advantages; the unit cannot overheat; if the current is left on without attendance, it will remain so only until the water content is exhausted; and scorching of the goods being ironed is impossible, in that the steam generated will always be "wet" and not superheated.

After use, the surplus water may be drained from the reservoir, and the board folded and stored just as any conventional domestic ironing board.

The embodiment of Fig. 6 is typical of a commercial pressing board and has substantially more ironing surface. The board 30 comprises a hollow base 31 arranged for the reception of the foraminated cover 32.

A commercial board will be permanently installed, in contrast to the domestic types, and therefore may be of cast or welded metal construction; it is necessary therefore, to provide a complete lining 33 of insulation material.

A wall 34 divides the base into two reservoirs 31*a*, and 31*b*, each having its own complement of electrodes 35*a*, 35*b*. The electrodes are preferably spaced as previously described for Fig. 2, and may be supported at their ends by the rigid insulated mountings 36*a*, 37*a*, and 36*b*, 37*b*.

Connection terminals, such as 38*a*, 38*b*, individual to each electrode, are brought through the bottom wall of the reservoir, suitably insulated therefrom by rubber or equivalent grommets which seal also against leakage of water. It will be understood that any conventional insulation means (not shown) may be employed to protect the operator against contact with any "live" terminals or electrode securement means. Suitable control switches (not shown) for each electrode complement provide a selection of circuits as previously described.

It is intended that the commercial board will be permanently mounted, and therefore it is expedient to have a permanent connection with a water source. Preferably an automatic float-controlled valve 40, of any conventional type, is disposed within a fill tank 41 which may be secured to an end wall of the apparatus as illustrated. An inlet pipe 42 is connected to the building water source and a feed pipe 43, valve controlled, enters the reservoir 31*a*.

It will be noted that the wall 34 terminates above the bottom of the reservoirs; this provides a passage 44 (with which communicate passages in the adjacent insulating walls) through which water will flow into reservoir 31*b*, without permitting steam to pass from one to the other of the reservoirs. Drain plugs 46*a*, 46*b* have been conventionalized and are typical of any drainage means, it being understood that the drain ports may also be permanently connected to a sewer line, and have individual control valves.

It is desirable to provide an overflow opening such as 47 at suitable locations in the side walls of the valve chamber 41 so that in the event of valve failure the water will not seep or rise through the openings of the ironing surface 32, nor wet the pad or cover 48.

With each electrode complement being individually controlled and the wall 34 subdividing the steaming space, the board may therefore be used as totally or partially steam generating, or totally "dry."

Thus, among others, the several objects of the invention as afore noted are achieved. Obviously numerous changes in construction and rearrangement of the parts might be resorted to without departing from the spirit of the invention as defined by the claim.

I claim:

An ironing board including in combination a hollow base, a transverse wall extending across said base to divide the latter into separate compartments, electrodes having one of their ends mounted by said wall, their bodies extending through one of said compartments and their opposite ends being suported short of that compartment end, a perforated deck mounted upon said base and formed with an opening in line with the other compartment, a funnel mounted by said perforated deck to close said opening, a tube extending from said funnel through said transverse wall to supply the compartment containing said electrodes with liquid to be vaporized, a switch disposed in the other compartment and connected to said electrodes to energize the same,

and an actuator for said switch and arranged above the upper surface of said deck.

SHELDON JACOWITZ.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 16,935	Noll	Apr. 17, 1928
1,985,623	Ross	Dec. 25, 1934
2,124,482	Blair	July 19, 1938
2,248,676	Jensen	July 8, 1941
2,474,113	Osipow	June 21, 1949