Nov. 11, 1952 H. J. SMITH 2,617,213

PORTABLE TABLE MODEL IRONING BOARD

Filed Aug. 28, 1951 2 SHEETS—SHEET 1

Fig. 1.

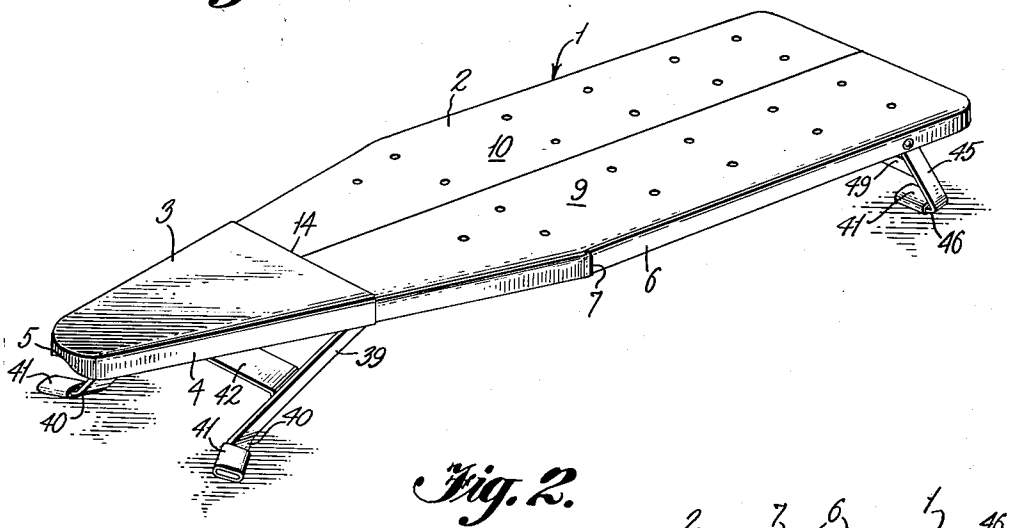


Fig. 2.

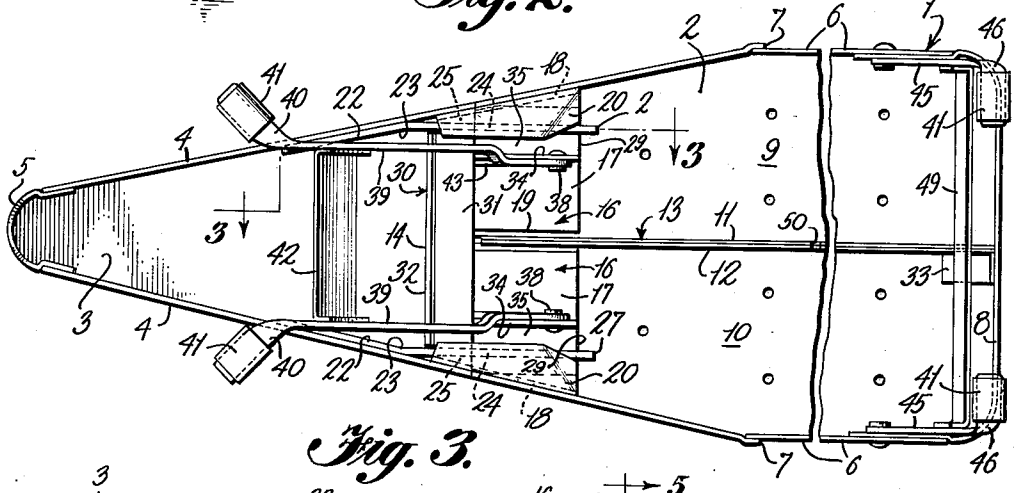


Fig. 3.

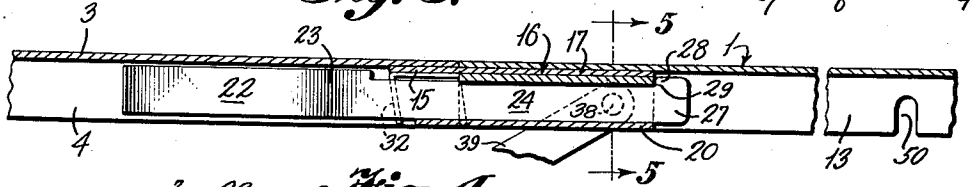
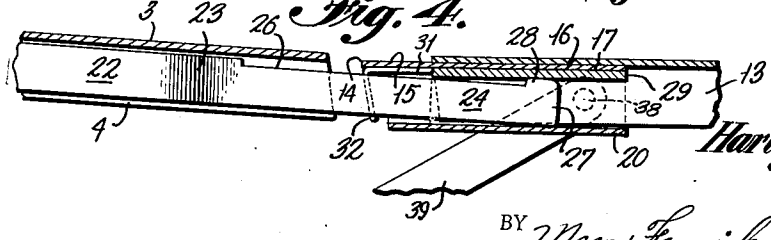


Fig. 4.



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PORTABLE TABLE MODEL IRONING BOARD

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Fig. 5.

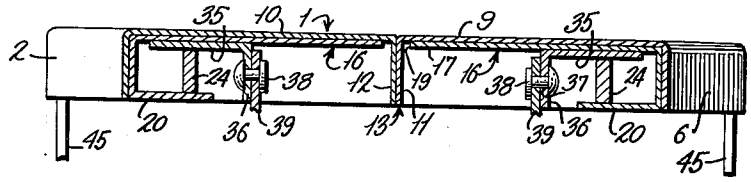


Fig. 6.

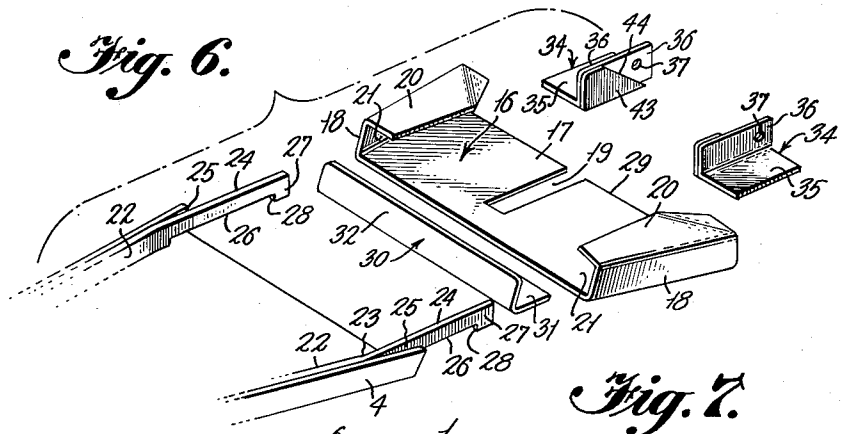


Fig. 7.

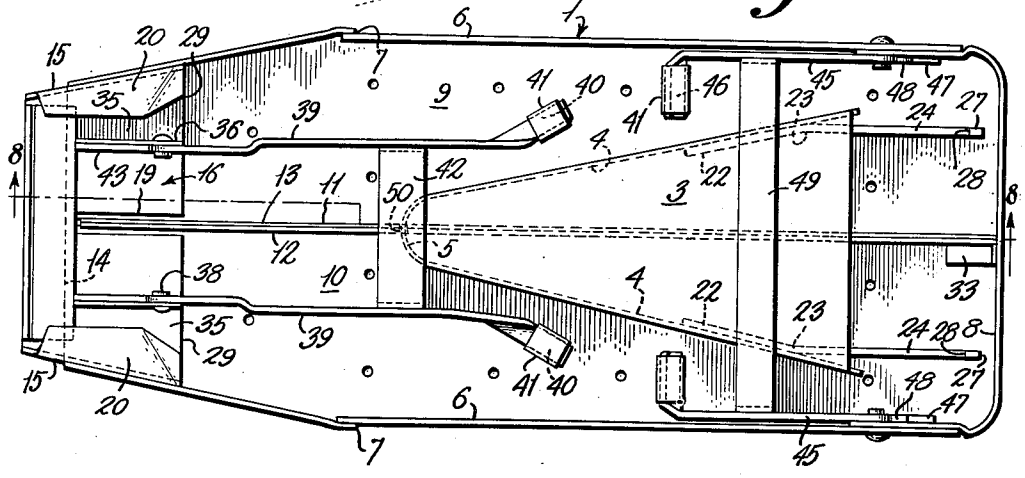
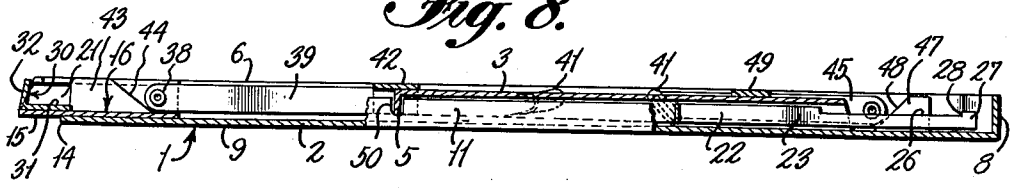


Fig. 8.



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PORTABLE TABLE MODEL IRONING BOARD

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Application August 28, 1951, Serial No. 243,951

5 Claims. (Cl. 38—138)

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This invention relates to a portable ironing board made in two sections, short legged, and preferably of such size that when its detachable components are separated and its legs folded, it may be carried in a suitcase or under arm, or conveniently stowed in an automobile. The short legs adapt it to be used on a table or other similar support.

One of the objects of the invention is to provide an ironing board of the type described, made in separable sections, a body and nose, which can be nested together and retained as a unit by means of the legs when folded, for convenience in storing and for transportation.

Another object of the invention is to provide an ironing board in which the nose telescopes over a rabbeted end of the body, whereby the working face of the ironing board is planiform throughout its length.

Still another object of the invention is to provide an ironing board in which the nose has latch extensions at one end engageable with an underlying shoulder on the body, being biased into latching engagement by resilient means carried by said body.

Other objects of the invention will appear as the following description of a practical embodiment thereof proceeds.

In the drawings which accompany and form a part of the following specification, and throughout the figures of which the same reference characters have been used to denote identical parts:

Figure 1 is a perspective view of the ironing board assembled, and with legs extended;

Figure 2 is an underneath plan view, an intermediate part being broken away;

Figure 3 is a section taken along the line 3—3 of Figure 2, showing the nose in latched relation to the body;

Figure 4 is a similar view showing the nose unlatched;

Figure 5 is a section taken along the line 5—5 of Figure 3;

Figure 6 is an exploded view showing structural details related to the juncture of the nose and body, and including the supports for the fore legs;

Figure 7 is an underneath plan view of the ironing board showing the parts in nested position;

Figure 8 is a section taken along the line 8—8 of Figure 7.

Referring now in detail to the drawings, the numeral 1 represents the ironing board as a whole, made of sheet metal or the like, which comprises a body 2 and a detachable forwardly tapered

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nose 3. The nose has stamped side flanges 4 and an end flange 5 welded to the forward ends of the side flanges and conforming to the shape of the end of the nose. The forward portion of the body is tapered uniformly with the nose. Rearwardly of its tapered portion the sides of the body are parallel. The body has stamped side flanges 6. Before bending the flanges, the side margins of the body were slitted at the beginning of its tapered portion, and after bending, the lap at the line of division of the flanges was welded together, forming the welded joint 7. At its rear end the body is preferably rounded and a flange 8 follows the contour of the rear end, the ends of which lap the adjacent ends of the side flanges and are welded thereto. The body is preferably made of two parts 9 and 10, having stamped longitudinal margins 11 and 12 spot welded together forming a reinforcing rib 13 in the medial longitudinal plane perpendicular to the working face of the ironing board.

The front end 14 of the body 2 terminates in a plane perpendicular to said medial plane. The edges of the abutting end of the nose 3 coincide with the adjacent end edges of the body 2, including the side flanges.

The rib 13 terminates a short distance inwardly from the end 14 of the body to provide room for the projecting cuff 15, which forms a rabbet with the end 14, over which the nose telescopes. The cuff is the projecting portion of the formed plate 16 shown in Figure 6. This plate fits within the tapered portion of the body 2. It has a flat base 17 engaging the under side of the working face of the body, and it has side flanges 18 that fit against the inner sides of the tapered portions of the side flanges 6. The base 17 has a slot 19 which receives the forward portion of the rib 13. The plate 16 has a pair of wings 20 inwardly bent from the edges of the flanges 18, forming with said flanges and base the channels 21. The plate 16 is spot welded in position with the forward portion projecting, forming the cuff 15.

The nose 3 has a pair of flat bars 22, the inner parts of which lie against the inner sides of the flanges 4 and the under side of the working face of the nose. The inner parts of said bars follow the convergence of the side flanges and are spot welded to said side flanges. At points 23 inset with respect to the wide end of the nose, the bars are bent angularly so as to lie parallel, forming latched extensions 24 which project beyond the wide end of the nose, forming spaces 25 between said extensions and the side flanges 4, in which the side flanges of the cuff may be received. The

edges of said extensions which lie adjacent the plane of the under side of the working face of the nose are recessed at 26. The recesses 26 extend back a sufficient distance from the wide end of the nose to receive the flat base portion of the cuff. The extensions 24 have keepers 27 at their inner ends formed with abrupt shoulders 28, defined by the forward ends of the recesses 26. The length of said recesses is the same as the width of the plate 16, so that when the nose is fully telescoped upon the cuff 15 with its end edges in contact with the adjacent end edges of the body 2, the shoulders 28 will be in position to latch against the far edge 29 of the plate 16.

The wings 20 have inherent resiliency. The depth of the forward ends of the channels 21 is sufficient to freely receive the keeper 27, but the wings are bent down somewhat toward the rear so that the keepers become cramped in the channels as they are pushed rearwardly, reacting against the wings so that when the nose is pushed inwardly to its fully telescoped position on the cuff the wings snap the keepers behind the far edge 29 of the plate 16, latching the nose firmly to the body. To release the nose it is bodily stressed in an upward direction to cause the latch extensions 24 to exert leverage against the wings until the latter yield enough to permit release of the keepers from the plate 16. The nose is then drawn out.

An angle member 30 is positioned transversely in the space between the latch extensions 24, with its base flange 31 spot welded to the plate 16 and its flange 32 depending, reinforcing the adjacent ends of the nose and body. By virtue of the perimetric flanges 4, 5, 6, and 8, and the transverse flange 32, and the longitudinal rib 13, the working face of the ironing board is maintained rigid and planiform throughout, while the securing means between the body and nose prevents any sagging on the part of the last named member.

A right angled clip 33 is shown welded to the under side of the ironing board at the rear close to the longitudinal rib 13, having a back flange welded to the rear flange 8 to hold the latter close against the rib 13, in the interest of stiffness of construction. Fore leg supports 34 are positioned in laterally spaced relation on the under side of the plate 16. These have base flanges 35 spot welded to the plate 16, and depending flanges 36 with aligned holes 37 for the leg pivots 38. The legs 39 are flat rigid strip members pivoted at one end to the leg supports, and being deflected laterally at the other end to form feet 40, which are preferably encased in tubular rubber liners 41, frictionally held. The fore legs are connected by a flat transverse bar 42.

In their normal open or expanded position the fore legs 39 incline forwardly in the direction of the nose. To limit the movement of the legs in an opening direction, a stop plate 43 for each is provided, welded to the depending flange 36 of the leg support at the side on which the leg is pivoted, having an inclined edge 44 against which the leg abuts.

The rear legs 45 are also flat rigid strip members deflected at their free ends to form feet 46, the latter being encased in tubular rubber liners 41. The rear legs are pivoted to the side flanges of the body in the region where said flanges are lapped by the flange 8, and where the material is of double thickness. The rear legs when expanded incline rearwardly, their opening movement being limited by stop plates 47 similar to the stop plates 43, which are welded to the ends of the flange 8 in the region of lap, and are provided with inclined edges 48 engaged by the rear legs. Said rear legs are intermediately connected by the flat transverse bar 49.

When the ironing board is collapsed both pairs of legs fold flat within the space bounded by the perimetric flanges of the body, with the exception of the feet, which project slightly. The tranverse bars 42 and 49 are on the outside of the pairs of legs, so that they cross over the rib 13 when the legs are in folded position. Figures 7 and 8 show that the detached nose is placed against the body with the flanged sides of both members confronting. The rib 13 is provided with a slot 50 at a distance from its rear end equal to the overall length of the nose, including the latch extensions. The nose is placed within the body with the ends of the latch extensions substantially touching the rear flange 8 and the front flange 5 of the nose seated in the slot 50. In this position the nose is entirely within the space bounded by the perimetric flanges of the body, and due to the interdigitation of the flange 5 with the slot 50, it cannot shift in a front to back direction.

In order not to unduly weaken the rib 13 the slot 50 is less than the full depth of said rib, and the end flange 5 is indented to lessen its depth where it rests within said slot.

After the nose has been placed within the body in the manner described, both pairs of legs are folded down, the transverse bar 49 bearing upon the wide portion of the nose, while the transverse bar 42 bears upon it at the tip. There is sufficient friction in the pivotal connections of the legs to cause them to retain their folded position, holding the nose against casual displacement. Thus, the ironing board is contracted into a portable unit having the overall length and width and substantially the depth of the body member.

While I have in the above description disclosed what I believe to be a preferred and practical embodiment of the invention, it will be understood by those skilled in the art that the specific details of construction and arrangement of parts, as shown, are by way of example and not to be construed as limiting the scope of the invention.

What I claim is:

1. Collapsible ironing board of sheet material comprising a body having a detachable nose at one end and being encompassed by peripheral reinforcing flanges carried by said body and nose, extending depthwise in a direction below the working face of said ironing board, said body having a medial longitudinal reinforcing rib on its under side, said rib having a slot opening in its free edge spaced from the rear of said body a distance equal to the overall length of said nose, the space on the under side of said body bounded by the peripheral flange of said body being a receiver for said nose when detached, said nose being positioned with the peripheral flange at its tip within said slot, and its opposite end adjacent the rear of said body, a pair of fore legs and a pair of rear legs, pivotally connected to said body, said pairs of legs being foldable toward one another to a limit position within the space bounded by the peripheral flange of said body, transverse braces intermediately connecting the legs of each pair, said braces when said legs are in folded position, overlying said nose respectively adjacent said tip and adjacent the end opposite said tip, there being sufficient friction in the pivotal connections of said legs with

said body to cause said braces when said legs are folded to maintain said nose unitary with said body.

2. Collapsible ironing board of sheet material comprising a body and a detachable nose at one end of said body, said body having a peripheral reinforcing flange projecting depthwise from its under side extending about its sides and rear end, said nose having a peripheral reinforcing flange projecting depthwise from its under side extending about its sides and outer end, a plate fixed to said body fitting the under side thereof between the sides of the peripheral flange of said body adjacent its forward end, said plate having side flanges engaging the inner sides of said peripheral flange and projecting beyond the end of said body forming therewith a rabbet the depth of which equals the thickness of the sheet material, the rear edge of said plate forming a latching shoulder, the end of said nose adjacent said rabbet, including the sides of the peripheral flange of said nose, fitting said rabbet and telescoping over the projecting portion of said plate into abutment with said body, whereby the working faces of said nose and body make a flush joint, latch extensions projecting from said adjacent end of the nose terminating in shouldered keepers, the shoulders of said keepers engaging said latching shoulder when said nose and body are in abutment.

3. Collapsible ironing board of sheet material comprising a body and a detachable nose at one end of said body, said body having a peripheral reinforcing flange projecting depthwise from its under side extending about its sides and rear end, said nose having a peripheral reinforcing flange projecting depthwise from its under side extending about its sides and outer end, a plate fixed to said body, fitting the under side thereof between the sides of the peripheral flange of said body adjacent its forward end, said plate having side flanges engaging the inner sides of said peripheral flange, and projecting beyond the end of said body forming therewith a rabbet the depth of which equals the thickness of the sheet material, the rear edge of said plate forming a latching shoulder, the end of said nose adjacent said rabbet, including the sides of the peripheral flange of said nose, fitting said rabbet and telescoping over the projecting portion of said plate into abutment with said body, whereby the working faces of said nose and body make a flush joint, latch extensions projecting from said adjacent end of the nose terminating in shouldered keepers, and resilient means on said body engaging said latch extensions to bias them against said plate whereby the shoulders of said keepers are snapped behind the latching edge of said plate.

4. Collapsible ironing board of sheet material comprising a body and a detachable nose at one end of said body, said body having a peripheral reinforcing flange projecting depthwise from its under side extending about its sides and rear end, said nose having a peripheral reinforcing flange projecting depthwise from its under side extending about its side and outer end, a plate fixed to the under side of said body between the sides of the peripheral flange of said body, adjacent its forward end, said plate having a flat base in surface engagement with said under side, side flanges engaging the sides of said peripheral

flange, and wings inturned from the edges of said side flanges, said base portion, side flanges and wings defining channels at opposite sides of said plate, said wings possessing inherent resiliency and having their rear portions deflected toward said base so as to narrow the depth of said channels toward the rear, said plate projecting beyond the said end of said body forming therewith a rabbet the depth of which equals the thickness of the sheet material, the rear edge of said plate forming a latching shoulder, the end of said nose adjacent said rabbet, including the sides of the peripheral flange of said nose, fitting said rabbet and telescoping over the projecting portion of said plate into abutment with said body whereby the working faces of the said nose and rabbet make a flush joint, latch extensions projecting from the said adjacent end of the nose in registry with said channels, terminating in shouldered keepers, the height of said keepers being such that while they freely enter said channels they become cramped as the depth of the channels narrows, reacting against said wings, the latter snapping said keepers into latching relation with the latching edge of the said plate.

5. Ironing board of sheet metal comprising a body and a detachable nose at the front end of said body, the latter having side and rear peripheral flanges depending from the working face of said body, the ends of said rear flange lapping the adjacent ends of said side flanges and being welded thereto, a cuff plate in surface contact with the under side of said body adjacent the front end and welded thereto, having side flanges in surface contact with the side flanges of said body, said cuff plate projecting forwardly beyond said body, said nose having peripheral side flanges depending from its working face, the end of said nose adjacent the front end of said body registering with said front end and telescoping over the projecting portion of said cuff plate into abutment with said front end, latch extensions carried by said nose, and complementary latching means on said plate for latching said nose to said body when in fully telescoped position, a pair of fore leg supports fixed to said cuff plate between the paths of movement of said latch extensions, fore legs pivotally mounted on said supports, a pair of rear legs pivotally mounted to said side and rear flanges of said body in the region of lap, said pairs of legs opening divergently, and stop plates one for each leg to limit the opening movement thereof, said stop plates being welded respectively to said leg supports and to said peripheral flanges in said regions of laps, said stop plates having edges inclined with respect to the plane of the working face of said body at the limit angle of divergence of said pairs of legs, in the path of swing of said legs to be engaged thereby.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,136,445	Sells	Apr. 20, 1915
1,456,661	Wagstaff	May 29, 1923
1,793,391	Fox	Feb. 17, 1931