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COLLAPSIBLE IRONING BOARD

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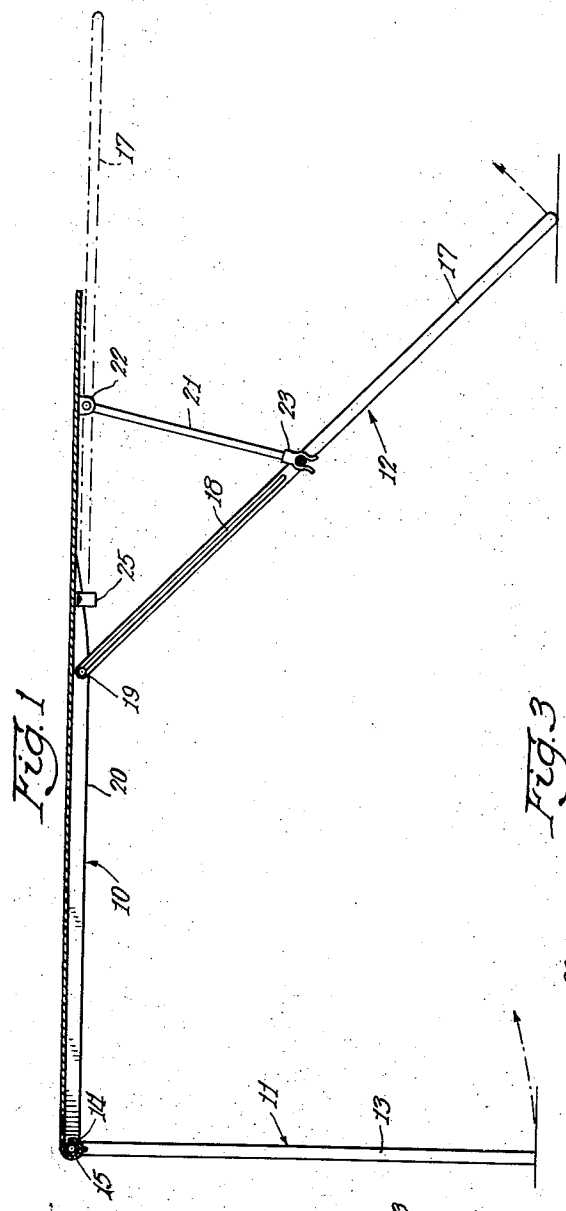


Fig. 1

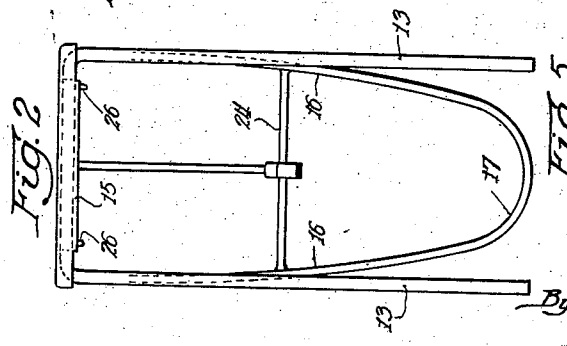


Fig. 2

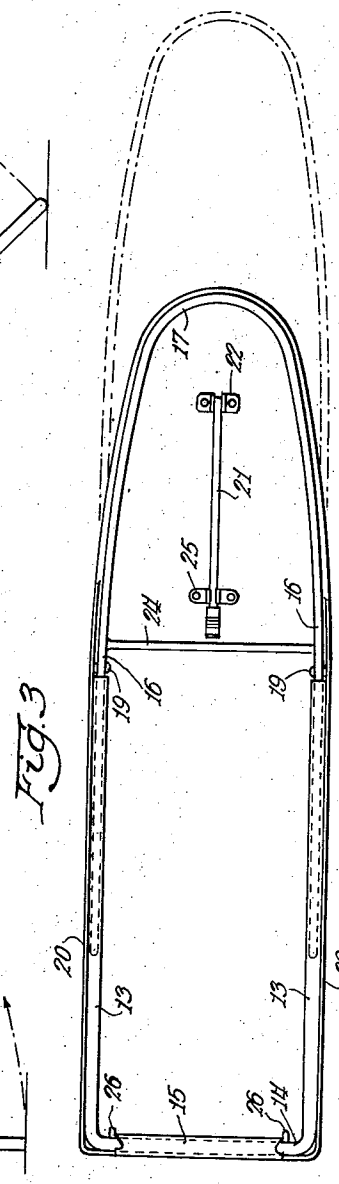


Fig. 3

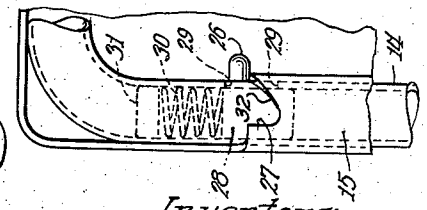


Fig. 5

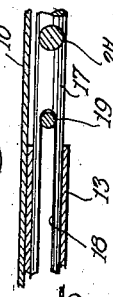


Fig. 6

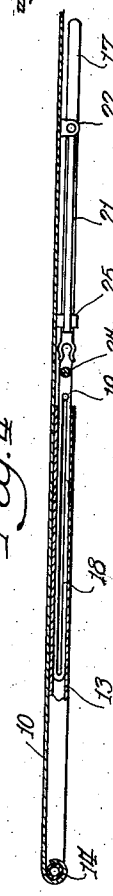


Fig. 4

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COLLAPSIBLE IRONING BOARD

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7 Claims. (Cl. 38—118)

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This invention relates to collapsible ironing boards and similar collapsible table-like structures.

It is an object of the present invention to provide an ironing board or a similar device in which the legs can be folded flat against the under-surface of the top member, and will be locked into their folded or collapsed position.

Although certain aspects of the invention are applicable to various types of collapsible tables and the like, the invention is described and shown herein as it may be applied to a collapsible ironing board. It is well known that in various types of collapsible ironing boards now on the market, the legs are pivotally mounted on the underside of the top member and arranged in such a manner that when in collapsed position, the legs are not folded flush against the under-surface, but on the contrary, are disposed at a slight angle thereto. Thus, when the collapsed ironing board is moved edgewise into a narrow space, such as a broom closet, the legs tend to catch on the other articles in that space.

Another objection to the usual commercial type of collapsible ironing board is that the legs do not lock into collapsed position; thus, when the ironing board is to be removed, it will be found that the legs have been moved partially into extended position with the result that the housewife must first squeeze the legs back against the top member before removing the ironing board in an edgewise direction.

A still further objection to the present type of ironing board is that the legs are designed so that they are extended beyond the confines of the top member, with the result that the collapsed structure takes up more room than is necessary if the front leg were slidably mounted in the manner described herein.

According to the present invention, an arrangement is provided in which the front leg is slidably mounted so that when in collapsed position, it can be moved longitudinally of the top member to the end that no portion thereof will extend beyond the same, and at the same time, this sliding movement causes the front leg structure to interlock with the rear leg structure so that all of the legs are locked into collapsed position.

Another object of the present invention is to provide an improved collapsible ironing board in which the front leg structure, when the board is collapsed, is telescopically received within the rear leg structure, to the end that a more compact and self-locking structure may be provided.

Still another object is to provide an improved

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collapsible ironing board in which the front leg structure is supported and braced independently of the rear leg structure. Thus, the horizontal forces incident to ironing will be resisted primarily by the front leg structure, thereby permitting the use of an unbraced rear leg construction.

Other objects, features and advantages will become apparent as the description proceeds.

With reference now to the drawings in which like reference numerals designate like parts:

Fig. 1 is a side elevation of a preferred embodiment of this invention, showing the legs in extended position;

Fig. 2 is a rear view of Fig. 1;

Fig. 3 is a bottom plan view showing the legs in collapsed position, an intermediate position of the front legs being shown in broken lines;

Fig. 4 is a sectional elevation of Fig. 3, and

Fig. 5 is an enlarged detailed view showing the stop means for the rear leg structure, and

Fig. 6 is an enlarged fragmentary detail of the construction.

The drawings shown an ironing board comprising a top member 10, a rear leg structure 11, and a front leg structure 12. The rear leg structure is a U-shaped tubular member having leg portions 13 and a horizontally disposed connecting portion 14. The top member is preferably formed of sheet metal having a rolled edge 15 at its rear, the rolled edge surrounding the connecting portion 14 and forming a bearing therefor so that the rear leg structure may be swung from an extended, substantially vertical position, as shown in Fig. 1, into a collapsed horizontal position, as shown in Figs. 3 and 4, in which the rear leg structure 11 is disposed against the under-surface of the top member 10.

The front leg structure 12 comprises a U-shaped member which can be formed either from rod stock or from tubular stock, and which is of a diameter less than the diameter of the tubular stock from which the rear leg structure is formed, to the end that certain parts of the front leg structure can be received within the open-ended leg portions 13 of the rear leg structure, as will be pointed out hereinafter. The front leg structure 12 comprises a U-shaped member having leg portions 16 and a connecting portion 17, the latter being designed to rest on the floor, as shown in Fig. 1.

The leg portions 16 are provided with closed slots 18 which are of substantial length. It will be observed that the upper ends of the slots 18 are disposed adjacent to the ends of the leg por-

tions 16 to permit pivotal movement of the front leg structure, as well as sliding movement thereof.

The front leg structure is mounted on pivot pins 19 which extend inwardly from downwardly depending side flanges 20 of the top member 10, these pivot pins passing through the slots 18. Thus, when the front leg structure is swung up into the broken line position shown in Figs. 1 and 3, the leg portions 16 are then aligned with leg portions 13 so that when the front leg structure is subsequently slid rearwardly, the leg portions 16 will be telescopically received within the rear leg portions 13. By virtue of this telescopic arrangement both the rear leg structure and the front leg structure are locked in a collapsed position in which they are parallel to the under-surface of the top member. The configuration of the connecting portion 17 of the front leg structure can desirably correspond with the conventional tapered configuration of an ironing board top so that when the parts are in collapsed position, the front leg structure resembles a beading or reinforcing bar, thus providing a neat appearance. The flanges 20 are not extended into the tapering portion of the top member, so that they do not interfere with longitudinal movement of the front leg structure.

Means are provided to brace the front leg structure when in its extended position, such means including a brace 21 which is pivotally mounted in bracket members 22 secured to the under-surface of the top member 10. The brace terminates in a clip 23 which engages a cross bar 24 which forms a part of the front leg structure 12. A clip 25 on the under-surface of the top member serves to maintain the brace in collapsed position when it is not in use.

Means are also provided to limit the swing of the rear leg structure 11 in its extended position. These means include a pin 26 which is located in the connecting portion 14, and which engages a stop edge 27 formed on the rolled edge 15. The particular arrangement shown herein is designed to bias the rear leg structure in its extended position so as to prevent accidental collapse. As shown in Fig. 5, the pin 26 is secured in a slidable plug 28 which is disposed within the tubular connecting portion 14. At this point, the connecting portion is provided with a slot 29 through which the pin 26 extends, and which permits limited movement of the pin. A spring 30 biases the plug and pin inwardly toward the center line of the ironing board. The spring is confined at its outer end by a suitable pin or plug 31. In addition to the stop edge 27, the rolled edge portion 15 is also provided with a cam edge 32 which is engaged by the spring bias pin 26. Thus, the rear leg structure 11 is biased into its extended position, but the cam edge 32 does not interfere with the swinging movement of the rear leg structure back into position.

The parts 28 and 30 may be inserted into the tubular member of the rear leg structure prior to bending, and then secured in their relative positions by means of pin 31. In the alternative, a suitable opening may be made in the connecting portion through which these parts may be inserted.

The pin 26 and its associated parts are merely illustrative of one type of stop means which may be provided for the rear leg structure. For instance, a brace, similar to brace 21, may be provided for the rear leg structure. However, it has been found that since the front and rear leg structures are structurally independent of each other, when in extended position, it is not necessary to brace the rear leg since the braced front leg structure is sufficient to prevent weaving of the ironing board during use.

The operation of the ironing board has been described in detail in connection with the description of its various parts. To summarize the operation, when it is desired to collapse the ironing board, the rear leg structure is swung up from its Fig. 1 position to its Fig. 4 position; the brace 21 is disconnected from the front leg structure, and locked in its collapsed position by means of clip 25; then the front leg structure 12 is swung up into its dotted line position, shown in Figs. 1 and 3. Then the front leg structure is moved rearwardly into telescopic engagement with the leg portions 13 of the rear leg structure. The parts are then locked in collapsed position, as illustrated in Fig. 4. The above sequence of operation is reversed when it is desired to open up the ironing board.

We claim:

1. A collapsible table-like structure comprising a top member, a rear leg structure pivotally mounted on the underside of said top member for movement between an extended and collapsed position, said rear leg structure including an open-ended hollow tubular member, a front leg having a straight inner end portion, and means for mounting said front leg to swing on an axis parallel to the swinging axis of said rear leg so that it may move from an extended position to a collapsed position, said means including a pivot pin, and a closed slot formed in the straight inner end portion of said front leg, said pivot pin passing through said closed slot so as to provide a pivoted and a sliding connection between said front leg and said top member, said tubular member and said front leg, when in collapsed position, being axially aligned with the open end of said tubular member and said straight inner end portion of said front leg extending toward each other so that said front leg can be telescopically received within said tubular member.

2. A collapsible ironing board comprising a top member, a hollow tubular U-shaped member hingedly mounted on the underside of said top member for pivotal movement from a downwardly extended position into a position adjacent said top member, the leg portions of said U-shaped member serving as the rear legs of said ironing board and having open outer ends, when extended, a second U-shaped member, the leg portions of which, when extended, serving as the front leg of said ironing board, and means for mounting said second U-shaped member at its inner ends on the underside of said top member for pivotal and sliding movement, thereby permitting longitudinal movement of said second U-shaped member with respect to said top member when in collapsed position, the open outer ends of said tubular U-shaped member and the inner ends of said second U-shaped member, when in collapsed position, extending toward each other in axial alignment so that the legs of said second U-shaped member will be telescopically received within the legs of said first U-shaped member.

3. A collapsible ironing board as claimed in claim 2 in which said second U-shaped member is provided with a cross bar, a brace member pivotally mounted on the underside of said top member, said brace member including, at its lower end, means for engaging said cross bar, whereby said second U-shaped member and said

brace member form a stable braced supporting structure which will resist horizontal forces applied to said top member incident to ironing.

4. A collapsible ironing board as claimed in claim 2 including a brace for said second U-shaped member, and including stop means for limiting the movement of said first U-shaped member into its downwardly extended position.

5. A collapsible ironing board comprising a top member, a hollow tubular inverted U-shaped member hingedly mounted on the underside of said top member for pivotal movement from a downwardly extend position into a position adjacent said top member, the leg portions of said U-shaped member serving as the rear legs of said ironing board, when extended and having open outer ends, an upright U-shaped member having slots formed in its leg portions near the inner ends thereof, and pivot means mounted on the under-surface of said top member and engaging said slots in a manner to provide pivotal movement of said upright U-shaped member with respect to said top member, and said slots permitting longitudinal movement of said upright U-shaped member with respect to said top member when in collapsed position, the open outer ends of said inverted U-shaped member and the inner ends of said upright U-shaped member, when in collapsed position, extending toward each other in axial alignment so that the legs of said upright U-shaped member will be telescopically received within the legs of said inverted U-shaped member.

6. An ironing board comprising a top member providing an ironing surface, rear legs, and front legs therefor, said rear legs comprising the leg portions of an inverted U-shaped member having a connecting portion, bearing means disposed at the rear portion of the under-surface of said top member and cooperating with said connecting portion so that said rear legs can be swung forwardly against the under-surface of said top member, said rear legs being hollow open-ended tubular members, said front legs being provided at their upper ends with longitudinally extending slots, pins mounted on the under-surface of said top member and extending through said

slots, said front legs being pivotally mounted on said pins so that they may be swung forwardly against at least a portion of the under-surface of said top member, said slots and said pins cooperating to permit longitudinal movement of said front legs with respect to said top member, said front legs being of smaller diameter than the tubular rear legs so that when said front legs are moved rearwardly they will be received within said rear legs in telescopic relationship.

7. An ironing board comprising a top member providing an ironing surface, rear legs, and front legs therefor, said rear legs comprising the leg portions of an inverted U-shaped member having a connecting portion, bearing means disposed at the rear portion of the under-surface of said top member and cooperating with said connecting portion so that said rear legs can be swung forwardly against the under-surface of said top member, said rear legs being hollow open-ended tubular members, said front legs comprising the leg portions of a U-shaped structure, the connecting portion of which is adapted to contact the floor, said front legs being provided with longitudinally extending slots, pins mounted on the under-surface of said top member and extending through said slots, said front legs being pivotally mounted on said pins so that they may be swung forwardly against at least a portion of the under-surface of said top member, said slots and said pins cooperating to permit longitudinal movement of said front legs with respect to said top member, said front legs being of smaller diameter than the tubular rear legs so that when said front legs are moved rearwardly they will be received within said rear legs in telescopic relationship.

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