Feb. 16, 1943. W. H. PLEISS 2,311,612

IRONING BOARD

Filed Sept. 22, 1941 3 Sheets-Sheet 1

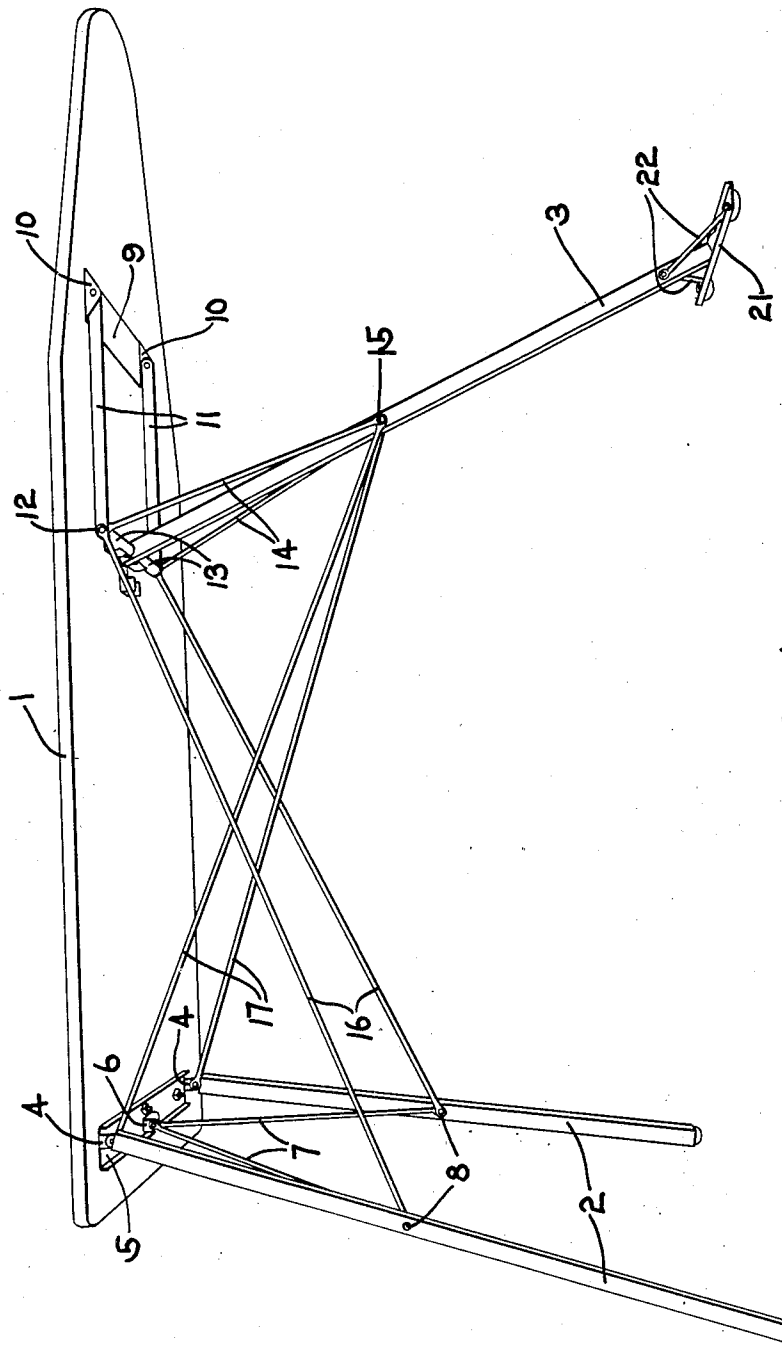


Fig. 1.

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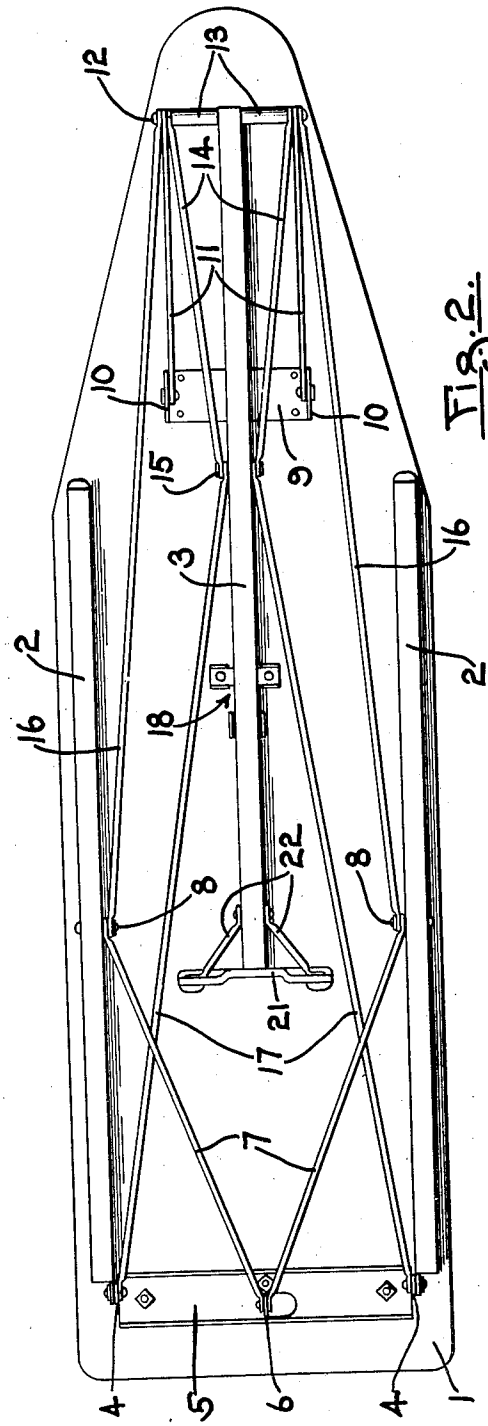


Fig. 2.

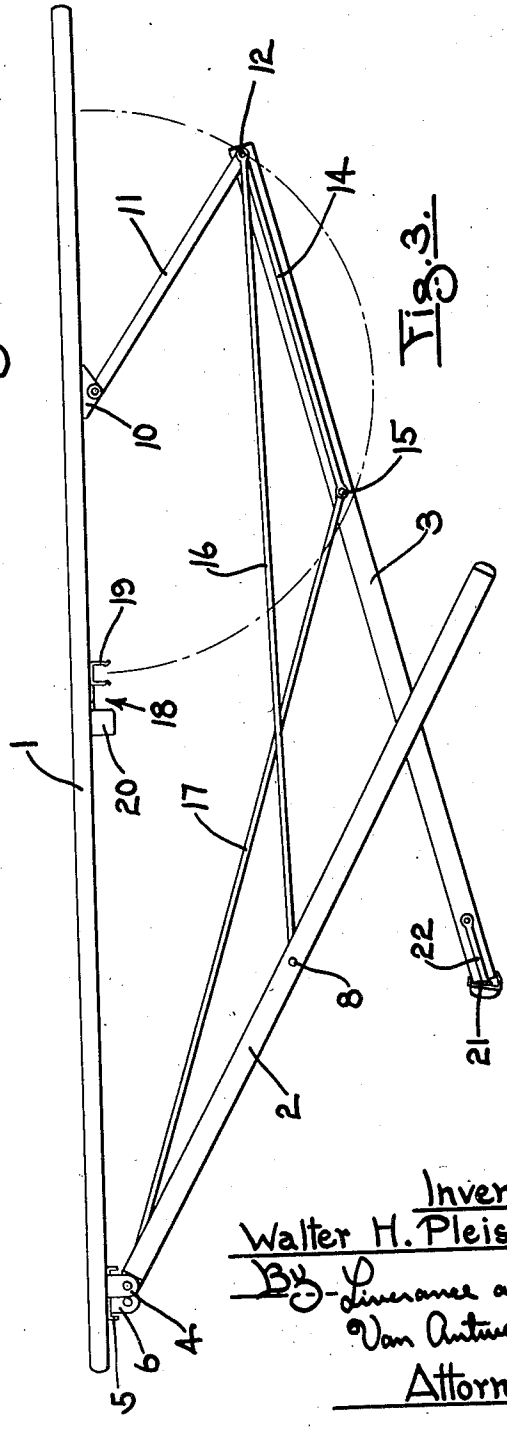


Fig. 3.

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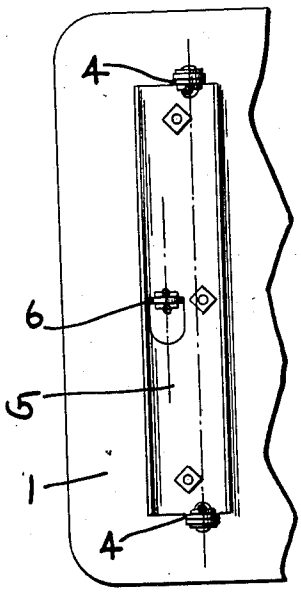


Fig. 5.

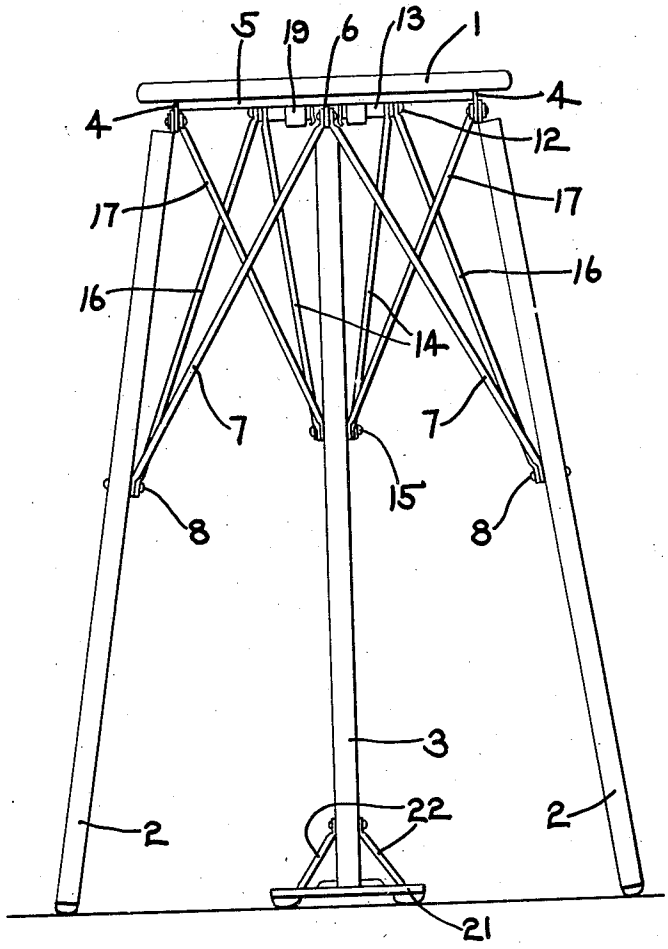


Fig. 4.

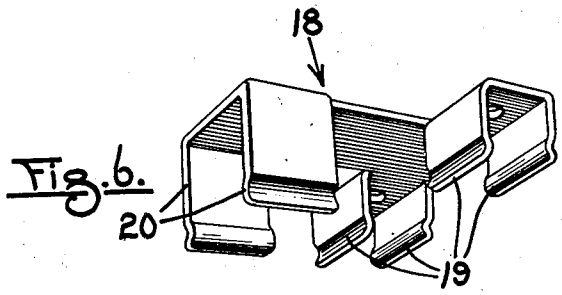


Fig. 6.

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UNITED STATES PATENT OFFICE

2,311,612

IRONING BOARD

Walter H. Pleiss, Ludington, Mich.

Application September 22, 1941, Serial No. 411,789

2 Claims. (Cl. 38—122)

This invention relates generally to ironing boards and is specifically directed to a foldable supporting structure therefor.

One of the objects of the invention is the provision of a supporting structure which is preferably formed of metal parts which, for the most part are able to be stamped and thereby produce an economical structure and yet one which is rigid and sturdy.

Another object of the invention is the novel arrangement of parts whereby when the supporting structure is in its open unfolded position the legs will have a comparatively wide spread, yet when the structure is folded against the underside of the board it will be located entirely within the confines of the board itself.

A still further object of the invention is the provision of a clamping means which serves the dual purpose of holding the structure either in its unfolded supporting position or in its folded position against the underside of the board.

Other objects and purposes of the invention will appear more fully as the description proceeds.

To the accomplishment of the foregoing and related ends said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawings and following description set forth in detail certain means for carrying out my invention, said means constituting, however, but one of various ways in which the principle of the invention may be employed.

In said annexed drawings wherein like reference numerals refer to like parts throughout the various views:

Fig. 1 is a perspective view of the device in its open position looking toward the side thereof.

Fig. 2 is an under plan view of the board with the supporting structure folded thereagainst.

Fig. 3 is a side elevational view with the supporting structure in a partly unfolded position.

Fig. 4 is an end elevation of the structure.

Fig. 5 is a fragmentary enlarged under plan view of one end of the board, and

Fig. 6 is a perspective view of the clamping means.

Referring now more particularly to the drawings, the usual form and shape of ironing board is shown at 1. At the underside of the board it is provided with two supporting legs 2 at one end thereof and with an end leg 3 adjacent the opposite end. The upper ends of the legs 2 are pivotally secured to downwardly extending ears 4 located at each end of a plate 5 which is secured to the underside of the board at one end thereof.

At substantially the center of the plate 5 another ear 6 is bent downwardly and has pivotally mounted thereto one end of each of a pair of rods 7 which diverge outwardly and are pivotally mounted at their other ends substantially midway between the ends of the legs 2 at the points 8. It is to be noted that the ear 6 is located out of alinement with the end ears 4 and is positioned nearer the end of the board. The location of this center ear and the rods 7 which extend between this ear and the legs 2 permit the legs to diverge in their open position as shown in Fig. 1 but draw the legs toward each other when the apparatus is folded so that they will be substantially parallel and lie within the confines of the board as shown in Fig. 2. This provides a sturdy support for the board when the structure is open and yet gives the apparatus a neat appearance when it is folded.

Spaced inwardly from the opposite end of the board and secured to the underside thereof is a second plate 9 which extends transversely thereof and is provided with downwardly extending ears 10 at each end. A pair of bars 11 are pivotally mounted at their ends one to each of the ears 10 and at their opposite ends are connected by a transversely extending rod 12. The upper end of the leg 3 is also mounted on this rod 12 at substantially the center thereof and is maintained in that location by means of spacers 13 which surround the rod 12 at each side of the leg 3.

A second pair of rods 14 are connected at one end thereof one to each end of the rod 12 and are pivotally secured at their other ends to the leg 3 by means of the pivot pin 15. A third pair of rods 16 are also connected at one of their ends to each end of the rod 12 and at their other ends are connected to the legs 2 at the point 8 thereon which is also the common connecting point of the lower ends of the rods 7.

A fourth pair of rods 17 are connected one to each of the ears 4 at one end thereof and at the other end are mounted on the pivot pin 15 and are connected between the ends of the leg 3.

The structure is simple to operate and when it is to be folded from the position shown in Fig. 1, the leg 3 is moved toward the legs 2. The upper end of the leg 3 and the transverse rod extending therethrough will be moved downwardly and again upwardly in the arc of a circle as shown by the dotted lines in Fig. 3, the radius of this arc being the length of the bars 11. The movement toward the outer end of the board of the rod 12 will carry with it the rods 16 and thence the legs 2. As the pair of legs at one end of the

board approach the underside thereof by pivoting about the ears 4, they will be drawn inwardly toward each other by the rods 7 because of the fact that the pivotal point of these rods is nearer the end of the board than the pivotal point of the legs. The ear 6, as previously mentioned, is out of alinement with the ears 4 a sufficient distance so that the legs will be substantially parallel as they lie against the bottom of the board. The rest of the mechanism which moves is no wider than the portion of the board against which it lies in folded position so that the entire structure when folded will not protrude beyond the edges of the board at any point.

In order that the structure may be held in either of its two extreme positions, open or closed, I have provided a T-shaped clamping member 18. The upper part of the T at each end thereof is provided with downwardly extending spaced apart spring clamp members 19, while the bottom of the T is provided with similar spaced apart downwardly extending spring clamp members 20. The width of the leg of the T may be substantially the same as the width of the leg 3 so that in the folded position of the structure this leg may pass between the two pairs of clamping members 19 and be received between the clamping members 20 whereby it is held against movement. As the structure is opened and the rod 12 with its connected parts is moved arcuately toward the center of the board, the clamping members 19 will receive the spacer members 13 thereby clasping and holding the structure in its open position against inadvertent closing.

The various novel features described herein have been found to operate satisfactorily in actual practice. The structure as a whole, being formed of metal, certain parts are able to be stamped from sheet metal thereby considerably reducing the cost of manufacture.

In order to render the structure still more rigid, instead of depending upon the leg 3 at its substantial point contact with the floor, I provide the bottom of the leg with a transversely extending channel member 21 supported on the leg by means such as the rods 22.

Other modes of applying the principle of my invention may be used instead of the one here described, change being made as regards the structure herein disclosed provided, however, that the means stated by any of the following claims or the equivalent of such stated means be employed.

I, therefore, particularly point out and distinctly claim as my invention:

1. A foldable supporting structure for ironing boards comprising, a transverse bracket adjacent one end of the board, a leg pivotally mounted at one end thereof on each end of said bracket, a pair of rods pivotally connected at one end to a common pivot pin on said bracket and diverging therefrom and pivotally connected one to each leg substantially midway between the ends thereof, a second bracket on said board spaced inwardly from the other end thereof having bars pivotally mounted thereon connected together at their outer ends with a transverse rod, a third leg mounted at one end on said last named rod, a second pair of elongated rods connected at one of their ends to said first named bracket and at their other ends to the third leg between its ends, a third pair of rods connected at one end to said transverse rod and at their other ends to said third leg at the same point of connection thereto as the second pair of rods, a fourth pair of rods extending between said transverse rod and the first two legs, and a T-shaped resilient clasp on said board to clamp on the third leg to hold the support in folded position and to clamp on said transverse rod to hold the support in open position.

2. A foldable supporting structure for ironing boards comprising, two spaced apart supporting legs pivotally mounted adjacent one end of the board, a pair of bars laterally spaced apart and pivotally mounted adjacent the other end of the board and connected between their outer ends by a transverse rod, a third leg pivotally secured at one end to said rod between its ends, means connecting the first two supporting legs with said third leg, other means connecting the first two legs with said rod, whereby an arcuate movement of said rod longitudinally of the board will open and close the structure, and a resilient clasp, one part of which is adapted to grasp said rod when the structure is in supporting position and another part of which is adapted to grasp said third leg when the structure is folded to maintain the structure in said positions.

WALTER H. PLEISS.