Dec. 8, 1953 E. E. FOSTER 2,661,553

FOLDABLE IRONING BOARD AND IRON SUPPORT

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Fig. 1.

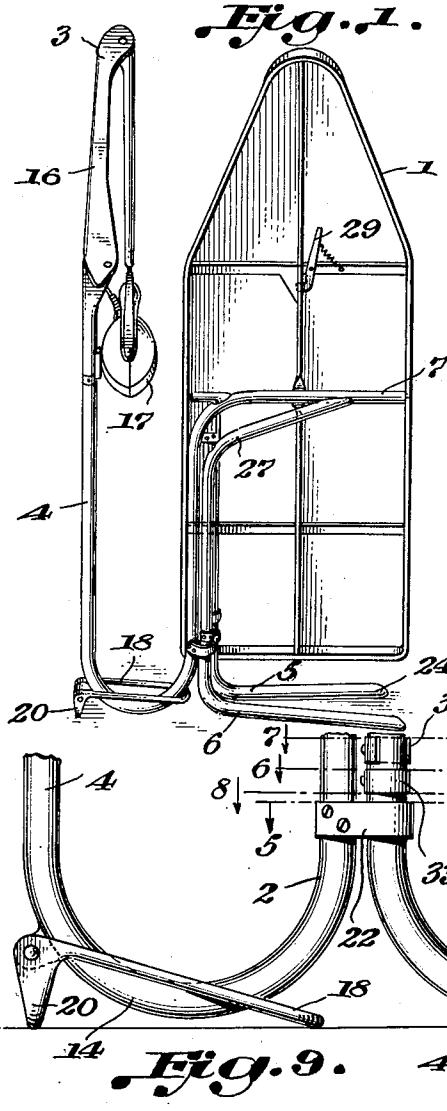


Fig. 9.

Fig. 10.

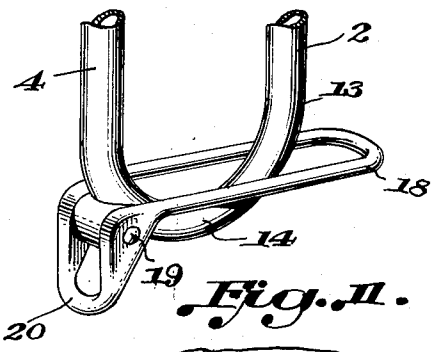


Fig. 11.

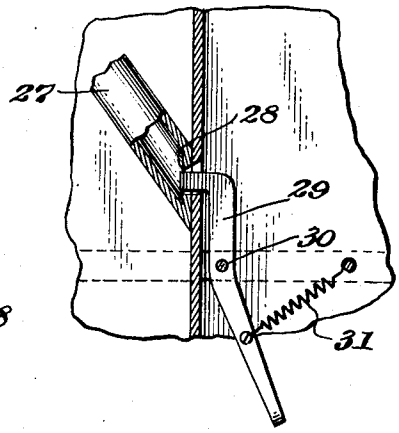


Fig. 13.

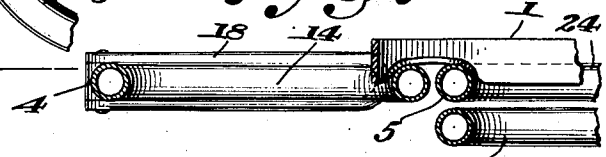
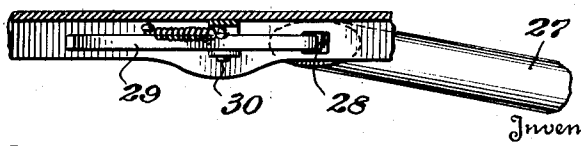


Fig. 12.



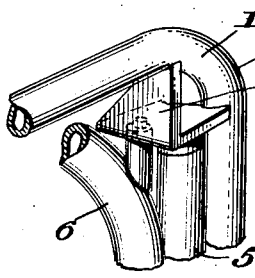


Fig. 14.

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Fig. 4.

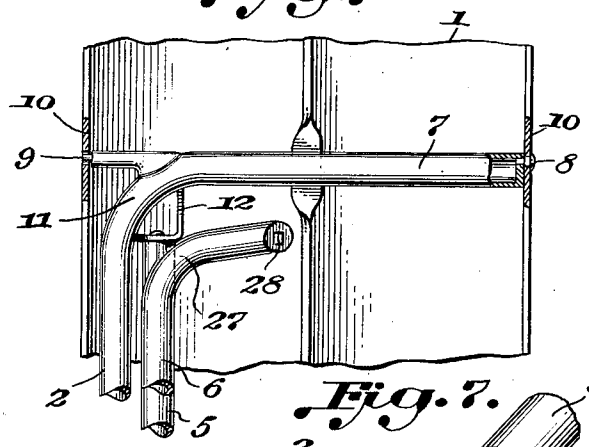


Fig. 5.

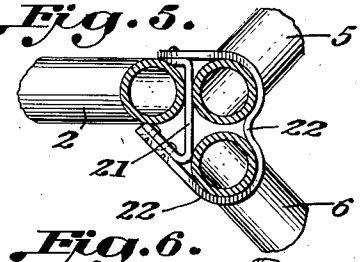


Fig. 6.

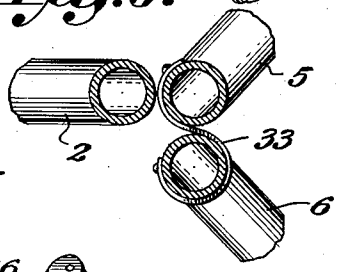
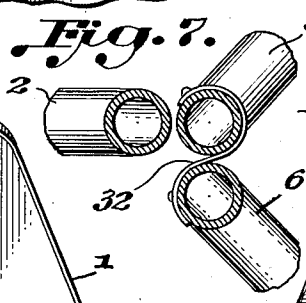


Fig. 7.



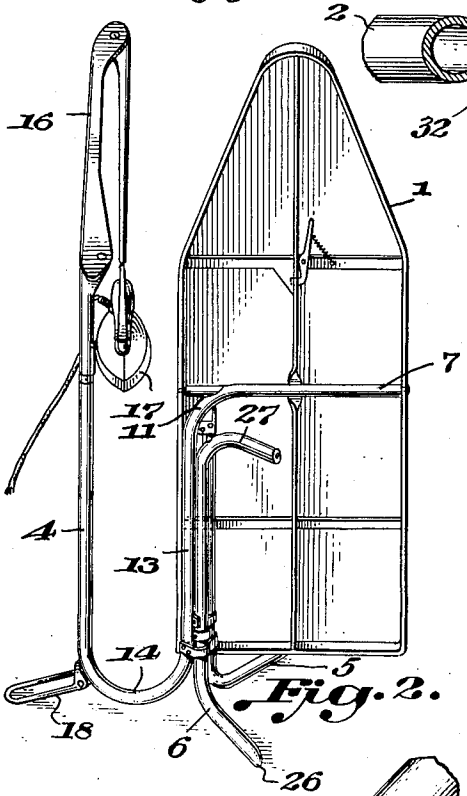


Fig. 2.

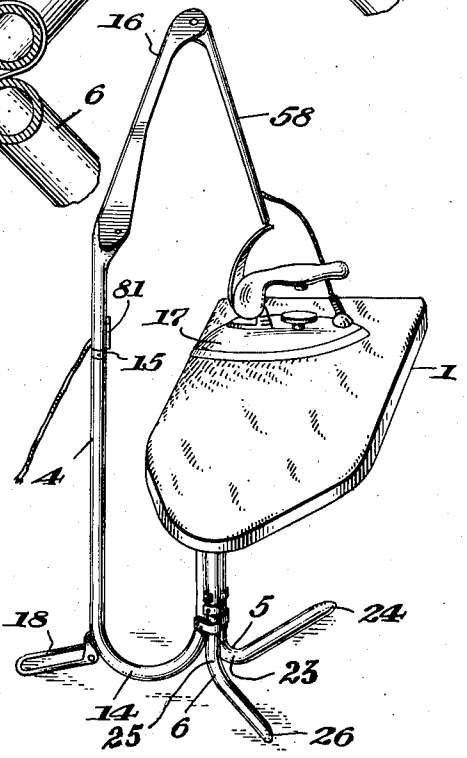


Fig. 3.

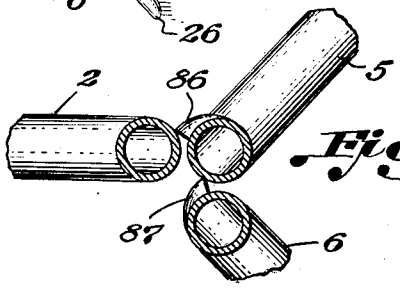


Fig. 8.

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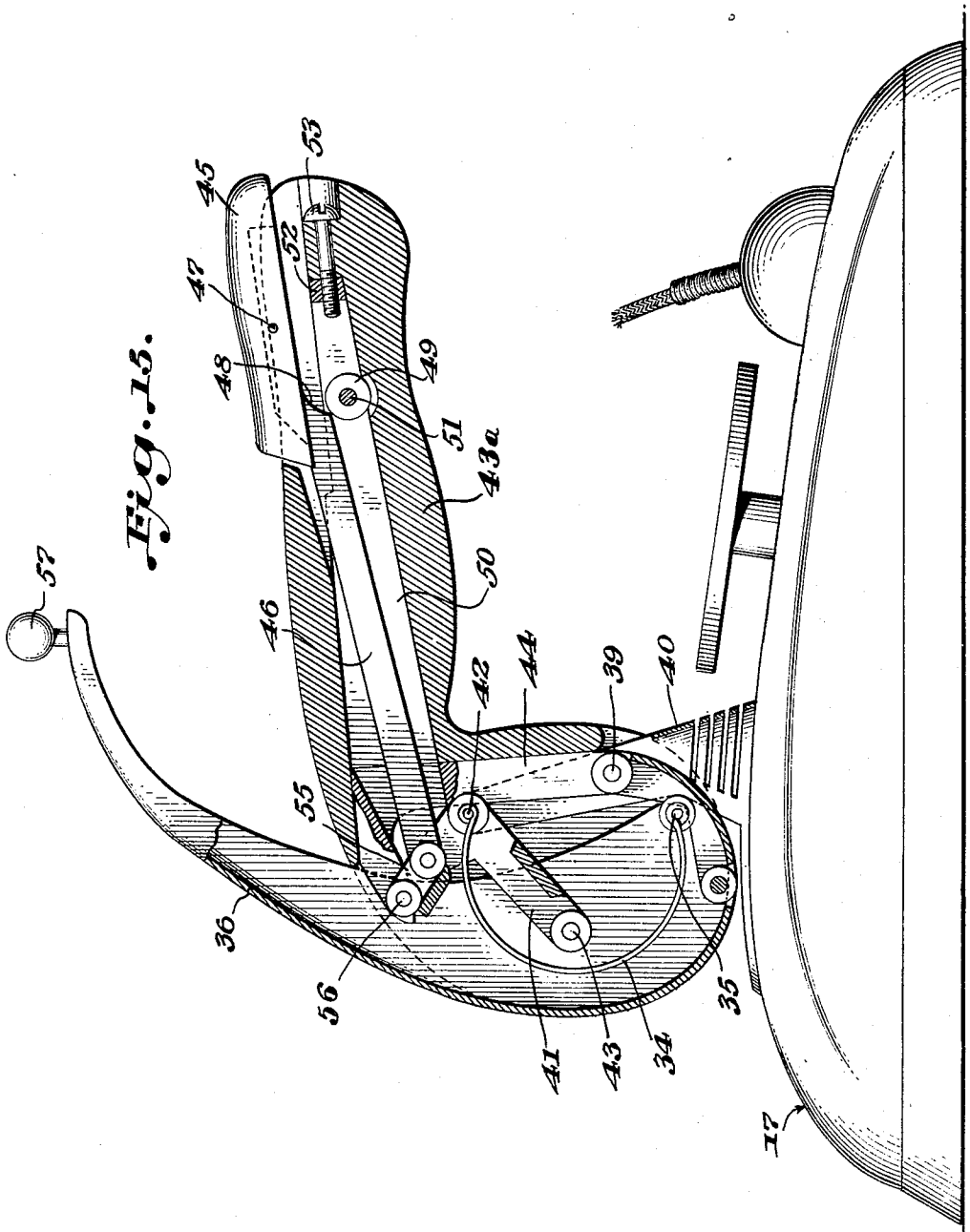
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Fig. 15.



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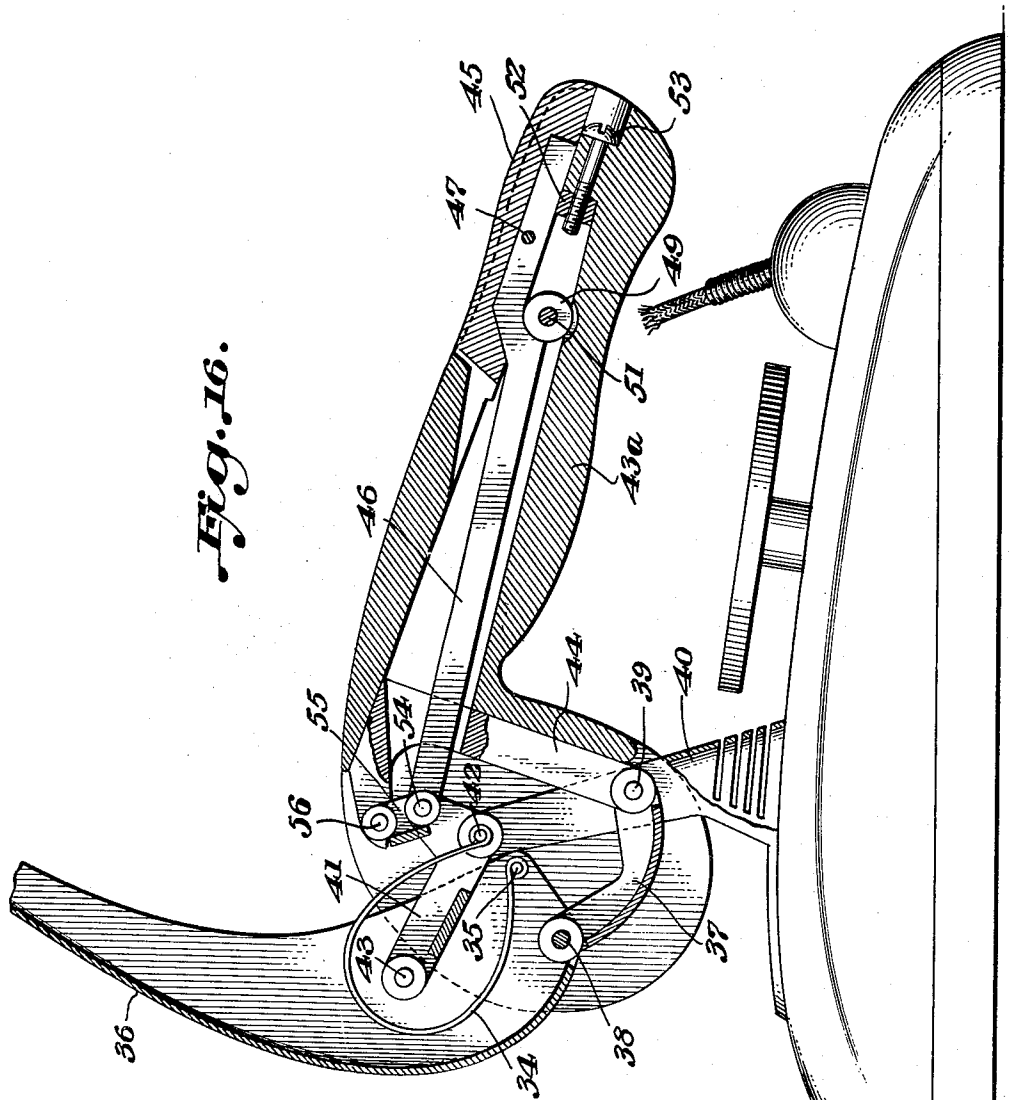


Fig. 16.

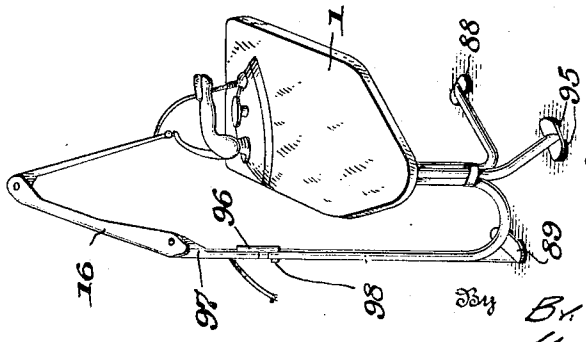


Fig. 17.

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FOLDABLE IRONING BOARD AND IRON SUPPORT

Edwin E. Foster, Austin, Tex.

Application May 5, 1948, Serial No. 25,137

10 Claims. (Cl. 38—107)

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The present invention relates to a foldable combined ironing board and iron support.

It is an object of this invention to provide an ironing board which is pivotally mounted to be folded in a vertical plane with foldable supporting legs of which one is extended to support the iron. A further object of the invention resides in a three-legged iron and ironing board support having two legs simultaneously rotatable and adjustable toward each other with the third leg having extensions at each end of which one end supports the board and the other supports an arm support for the iron. Another object of the invention resides in a three-legged iron and board support foldable with two of the legs interconnected so that movement of one will simultaneously move the other leg, the third leg being non-foldable or movable as compared with the other two.

Further objects will be apparent from the following description, when considered in connection with the accompanying drawings in which:

Figure 1 is a perspective view of the ironing board and iron in the folded position,

Fig. 2 is a view similar to Fig. 1 showing the two adjustable legs in the position to support the board,

Fig. 3 is a perspective view of the combined ironing board and iron support with the board and iron in the position ready for use,

Fig. 4 is a side view of the underside mid portion of the board and portions of the supporting legs,

Fig. 5 is a cross section on line 5—5 of Fig. 9 in the direction of the arrows,

Fig. 6 is a cross section on line 6—6 of Fig. 9 in the direction of the arrows,

Fig. 7 is a cross section on line 7—7 of Fig. 9 in the direction of the arrows,

Fig. 8 is a cross section on line 8—8 of Fig. 9 in the direction of the arrows,

Fig. 9 is a side elevation of the bottom parts of the legs,

Fig. 10 is a perspective view showing the bottom portion of the main leg,

Fig. 11 is a plan view of a portion of the board showing a locking latch for one of the legs and board,

Fig. 12 is a longitudinal section of the locking latch of Fig. 11,

Fig. 13 is a cross section through the legs and a part of the board with the latter in the folded position against the legs,

Fig. 14 is a perspective view showing a detail of the three legs,

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Fig. 15 is a side elevation of the iron with the handle in section and showing a portion of the iron support,

Fig. 16 is a view similar to Fig. 15 showing the parts in a different position, and

Fig. 17 is a perspective view of a modified iron, support and board.

Figs. 1 to 14 illustrate the ironing board, its support and the support for the iron. As shown, the ironing board 1 is directly mounted to rotate on the leg 2 on which an arm support 3 is rotatably mounted on an upright section 4 integral with the leg 2. The iron support 3 may be constructed as particularly described and claimed in my co-pending application, Serial No. 220,956, filed April 13, 1951, to provide for movement of its free end in a horizontal plane above and parallel to the plane of the ironing board. Two additional legs 5 and 6 are provided both of which are rotatably mounted to simultaneously adjust them relative to the leg 2.

The legs 2, 5 and 6 and section 4 are preferably made of metal tubing bent and shaped as best shown in Figs. 1 to 4. The most important leg 2 is provided with a horizontal portion 7 having a pivot pin 8 at one end, Fig. 4, and a pivot extension 9. The pivots 8 and 9 support the ironing board 1 by means of a board frame 10. The pivot extension 9 is secured, as for instance by welding, to a curved portion 11 and the latter portion also has a right angle bracket 12 welded thereto on the side thereof opposite to that on which the pivot extension 9 is secured. A vertical portion 13 extends from the curved portion 11, Fig. 2, and finally merges into a curved foot portion 14. The upright section 4 merges into the curved foot portion 14 at the lower end and the other or upper end is adapted to receive a pivot pin 15 to rotatably support an arm 16 for the iron 17. The curved foot portion 14 is provided with a shoe portion 18 pivotally mounted at 19 and having a short heel portion 20. In the position of Figs. 1, 9 and 10 the heel portion acts as a part of the foot when the apparatus is folded as in Fig. 1, but in the unfolded position as in Figs. 2 and 3 the shoe portion 18 is extended and the heel portion 20 acts as an abutment.

As best shown in Fig. 5 a pair of metal straps 21 and 22 are secured to each other and are secured to the leg 2 by any suitable means such as welding of the strap 21 to the leg 2. The strap 22 extends around the legs 5 and 6 and is bent as shown to form a bearing to permit rotation of the legs 5 and 6 and to retain them in spaced relation. The leg 5 has its upper end pivotally

supported in or to the bracket 12 as shown in Figs. 4 and 14, and is provided with a bent portion 23 terminating in a foot portion 24. The other movable leg 6 also has a lower bent portion 25 terminating in a foot portion 26 and the other end also has a bent portion 27, Figs. 2 and 4, terminating in an opening 28.

The opening 28 in the end of the bent portion 27 cooperates with a latch bolt 29 pivoted at 30 on the underside of the board 1, Figs. 1, 11 and 12, and which is forced by a spring 31 to the bolted position, Fig. 11.

The legs 5 and 6 are interconnected by preferably steel ribbons 32 and 33 each connected by rivets to both legs in reverse S-shaped relationship, as shown in Figs. 2, 6, 7 and 9. These legs 5 and 6 are interconnected by the ribbons so that both legs will move toward or away from each other even though one leg only is moved at a time. The movement of the legs 5 and 6 takes place when the board and stand is folded as shown in Fig. 1 or unfolded as shown in Figs. 2 and 3.

Referring to Figs. 15 and 16 the iron 17 is counterbalanced by means of a ribbon spring 34 connected at one end to a pin 35 secured in the curved suspension arm 36. This arm 36 is connected by means of a link 37 by means of a pivot pin 38 at one end and pin connected at the other end 39 to the post 40 of the iron. A rough angle link 41 is pivoted at 42 on the top end of the post 40 and pivoted at 43 to the arm 36. The actual handle 43*a* which may be made of wood, plastic or other suitable material is secured or molded to two metallic elements 44 which are pivoted on the pin 39.

The parts inside of the handle 43*a*, Figs. 15 and 16 have been provided to permit a latch button 45 to be placed on the top of the handle. This button or latch actuating member is preferably made of plastic and is recessed into the plastic handle near the rear end thereof. This button 45 is fixed to a compression link 46 by means of a pin 47 which extends horizontally through both of these elements. It is preferable to make the compression link 46 of ¼" square stock and the width of the button is approximately ¾".

The link 46 is suitably curved at the underside 48 to fit the curvature of a roller 49 which is mounted between the flat sides of a handle bracket 50 by means of a pin 51. The bracket 50 may suitably consist of two flat members spaced apart about ⅜" and closed at the rear end by means of a web 52 into which a screw 53 may be threaded to hold the plastic handle 43*a* firmly to the handle bracket 50.

Referring to Figs. 15 and 16, when the weight of the operator's hand is placed on the handle 43*a* and the trigger latch button 45, the iron is moved downward on the material to be ironed. When the handle has moved to the position shown in Figs. 16 the compression link 46 latches the handle down, so that it is rigid with the remainder of the iron. When the weight of the operator's hand is removed from the trigger 45 however, the curved part of the latch at 48 causes the compression link 46 to come unlatched, at which time the handle immediately returns to the position shown in Fig. 15 and the iron is at its extreme lifted position.

It will be noted that the compression link is connected at 54 to the link 41, the short link 55 being also connected at 54 to the link 41. This short link 55 is connected at 56 to the bracket 50.

Fig. 8 shows stop members 86 on leg 5 and 87 on leg 6, the stop 86 cooperating with the leg 2 and the stop 87 with the leg 5. These stops are for the purpose of limiting the spread of the legs 5 and 6 when the structure is in the position shown in Figs. 2 and 3.

It may be desirable to provide rather wide feet for each leg 5 and 6 as shown in Fig. 17 in which a plate or foot 88 is provided under each leg 5 and 6. Also instead of the foldable shoe portion 18, Fig. 10, it is possible to use a wide foot portion 89, Fig. 17, secured to the post 4.

As shown in Fig. 17 each foot plate 88 and 89 is preferably provided with two rubber or plastic pads 95. When the machine of Fig. 17 is folded the base will be the width of the foot portions 88 which will make the machine more stable when in the folded position. Also the machine is somewhat more stable when in its operating position as shown in Fig. 17 due to the fact that the feet add to the base both in the forward direction and towards the end of the board.

In Fig. 17 the fibre bumper 96 which is fixed to the vertical member or post 97 is extended downwards far enough to cooperate with the stationary boss or pin 98 which is secured in the upright post 4. This will prevent the iron and arm from pivoting 360° and as a matter of fact the iron may move only a few inches off of the ironing board.

It is believed that the construction and operation of the improved ironing structures and supports, as well as the many advantages thereof will be apparent from the foregoing detailed description. It will also be apparent that while preferred forms of the invention have been shown and described, many changes and modifications may be made in the structures disclosed, without departing from the spirit of the invention, defined in the appended claims.

I claim as my invention:

1. A supporting structure, for an iron and its arm and an ironing board comprising three tubular members of which one member is provided with means to pivotally support the ironing board on a horizontal axis and having an integral extension to rotatably support the arm and iron, the second member having means cooperating with the ironing board to latch the board in a horizontal position, means pivotally interconnecting the members for adjustment from a folded position to an open position, and means to interconnect the second and third members so that they can be adjusted together relative to the first member.

2. A supporting structure for an iron and its jointed arm and an ironing board comprising three tubular members each acting as a supporting leg in the form of a tripod and of which one member pivotally supports the board on a horizontal axis and the jointed arm and iron, means for rotatably connecting the other two members to the first mentioned member so that by relative movement of the members the board and members may be opened for use or folded when the board is not in use, and latching means carried by one of the members to latch the board in a horizontal position when the members are opened.

3. A supporting structure for an iron and its jointed arm and an ironing board comprising three tubular members each acting as a supporting leg in the form of a tripod and of which one member pivotally supports the board on a horizontal axis and the jointed arm and iron, means for rotatably connecting the other two members

to the first mentioned member so that by relative movement of the members the board and members may be opened for use or folded when the board is not in use, said means including steel ribbons secured in opposed relationship to the said other two members whereby said two members will move in unison, and latching means carried by one of the members to latch the board in a horizontal position when the members are opened.

4. A supporting structure for an iron and an ironing board comprising three tubular members having vertical portions pivotally interconnected and angular foot portions so that said tubular members can be adjusted between an opened supporting position and a folded position, a horizontal pivot support on one of the members, an ironing board pivoted on said pivot support, an angular extension at the upper end of another of said members, and cooperating latch parts on the ironing board and said other member to hold the board in a horizontal position and to hold the members in opened position.

5. A supporting structure for an iron and an ironing board comprising three tubular members having vertical portions pivotally interconnected and angular foot portions so that said tubular members can be adjusted between an opened supporting position and a folded position, a horizontal pivot support on one of the members, an ironing board pivoted on said pivot support, means interconnecting the members so that they will move simultaneously to the opened or the folded position, an angular extension at the upper end of another of the members, and cooperating latch parts on the ironing board and said extension to latch the board in horizontal position and to hold the members in their opened position.

6. A supporting structure for an iron and an ironing board comprising three tubular members having vertical portions pivotally interconnected and angular foot portions so that said tubular members can be adjusted between an opened supporting position and a folded position, a horizontal pivot support on one of the members, an ironing board pivoted on said pivot support, cooperating latch parts on another of the members and the ironing board to latch the board in a horizontal position when the members are in opened position, a vertical extension on said one of the members terminating at one side of the ironing board when the board is in a horizontal position, a folding supporting linkage pivoted on a vertical axis on said extension for movement of its free end in a horizontal plane, and an extensible linkage connected to the free end of the supporting linkage to support an iron for vertical movement toward and away from the plane of the ironing board.

7. A supported iron comprising an iron body, a handle pivoted on the iron body, a pair of pivotally interconnected links connected at one end to the iron body and at the other end to a support above the iron body to support the iron body from a support and movable between a collapsed position to raise the iron and an extended position to lower the iron, a spring acting on the links and urging them to their collapsed position, and a connection between the handle and the links acting on the links to move the links to their extended position when the handle is pivoted toward the iron body.

8. A supported iron comprising an iron body, a handle pivoted on the iron body, a pair of pivotally interconnected links connected at one end to the iron body and at the other end to a support above the iron body to support the iron body from a support and movable between a collapsed position to raise the iron and an extended position to lower the iron, a spring acting on the links and urging them to their collapsed position, a connection between the handle and the links acting on the links to move the links to their extended position when the handle is pivoted toward the iron body, and latch means including latch parts connected to the links and effective to hold the links in their extended position and a latch lever in the handle connected to the latch parts and having an operating button exposed at the top of the handle to hold the latch parts in their effective position.

9. A supported iron comprising an iron body, a handle pivoted on the iron body, a pair of pivotally interconnected links connected at one end to the iron body and at the other end to a support above the iron body to support the iron body from a support and movable between a collapsed position to raise the iron and an extended position to lower the iron, a spring connected at one end to the iron body and at its other end to one of the links to urge the links to their collapsed position, the points of connection of the spring to the body and said one of the links being so positioned that they approach alignment with the pivotal connection between the links when the links are extended thereby to decrease the effect of the spring, and a connection between the handle and the links acting on the links to move the links to their extended position when the handle is moved toward the iron body.

10. A supported iron comprising an iron body, a handle pivoted on the iron body, a pair of pivotally interconnected links connected at one end to the iron body and at the other end to a support above the iron body to support the iron body from a support and movable between a collapsed position to raise the iron and an extended position to lower the iron, a spring connected at one end to the iron body and at its other end to one of the links to urge the links to their collapsed position, the points of connection of the spring to the body and link being so positioned that they approach alignment with the pivotal connection between the links when the links are extended thereby to decrease the effect of the spring, a connection between the handle and the links acting on the links to move the links to their extended position when the handle is moved toward the iron body, and latch means including latch parts connected to the links and effective to hold the links in their extended position, a latch lever in the handle connected to the latch parts to hold the latch parts in their effective position.

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