

July 29, 1947.

E. C. BOOTH

2,424,734

SECTIONAL IRONING BOARD HAVING FOLDABLE SUPPORTS

Filed Nov. 13, 1943

3 Sheets-Sheet 1

Fig. 1.

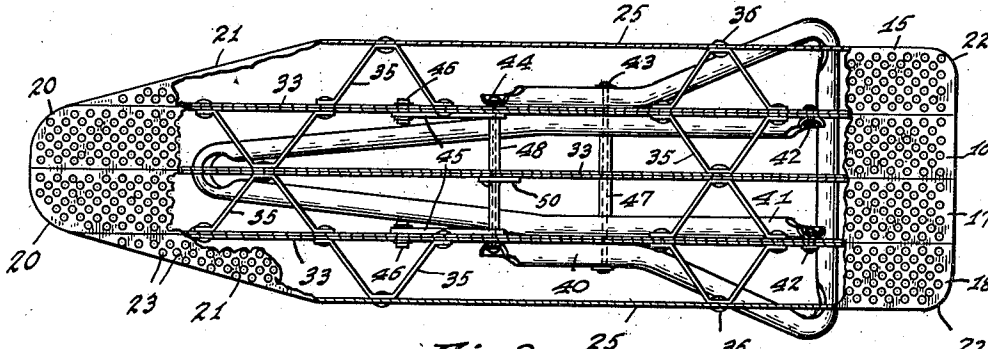


Fig. 2.

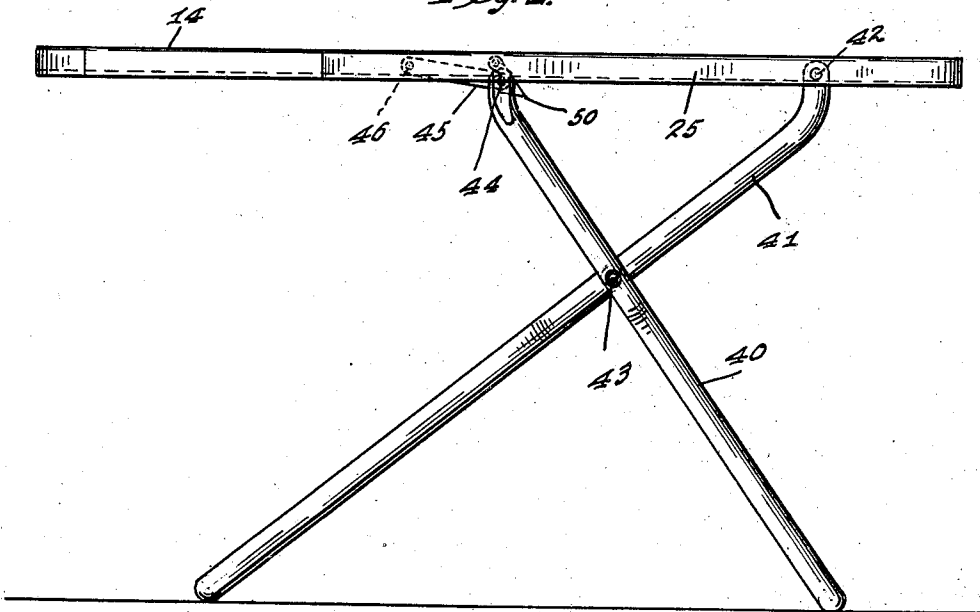


Fig. 3.

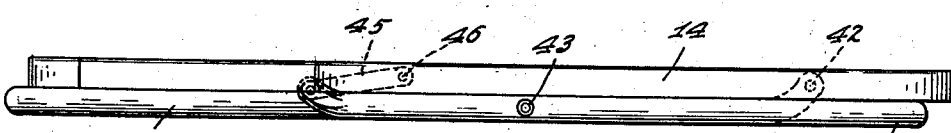
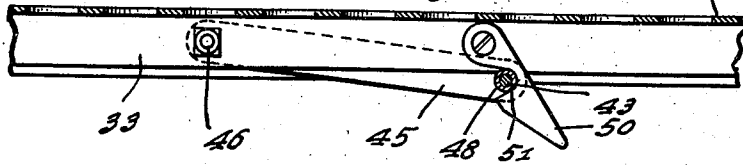


Fig. 4.



INVENTOR.  
EARL C. BOOTH,

BY

*Rellyard*  
ATTORNEYS.

July 29, 1947.

E. C. BOOTH

2,424,734

SECTIONAL IRONING BOARD HAVING FOLDABLE SUPPORTS

Filed Nov. 13, 1943

3 Sheets-Sheet 2

Fig. 5.

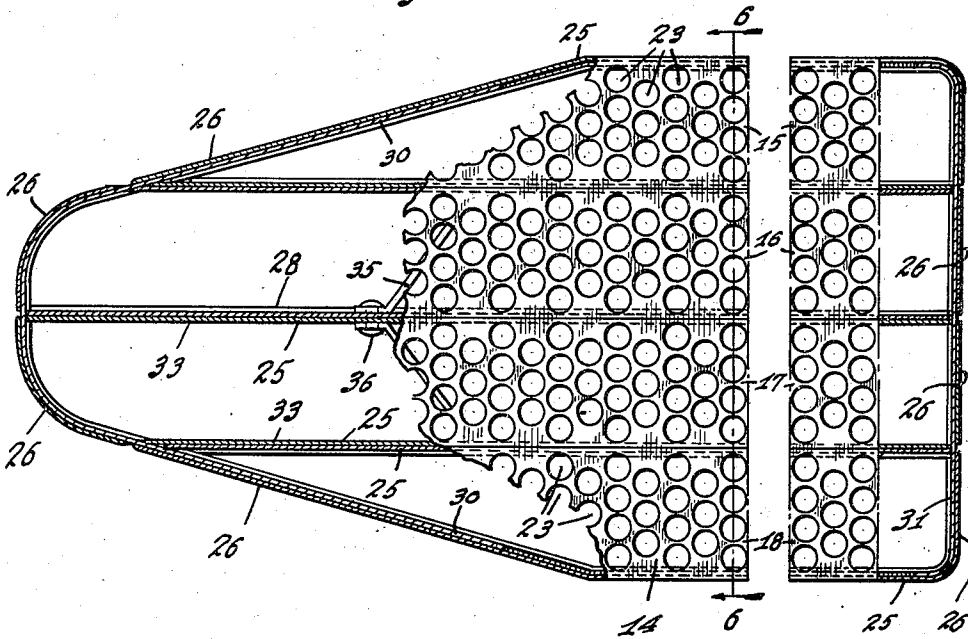


Fig. 6.

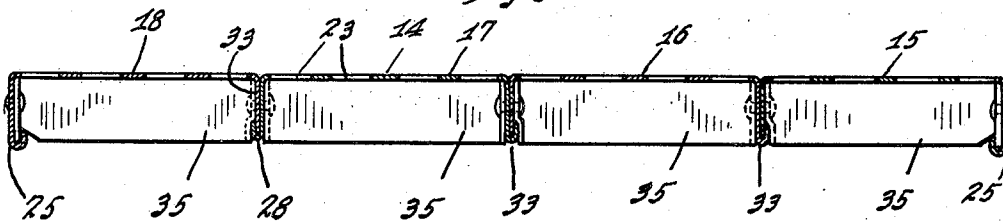
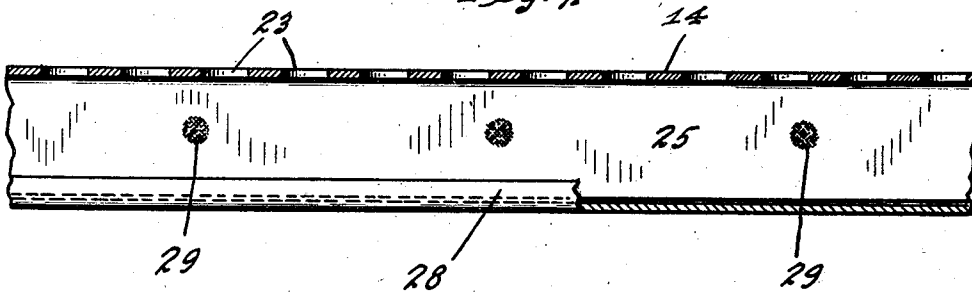


Fig. 7.



INVENTOR.  
EARL C. BOOTH,  
BY *Attorneys*  
ATTORNEYS.

July 29, 1947.

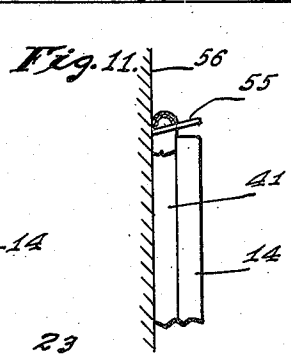
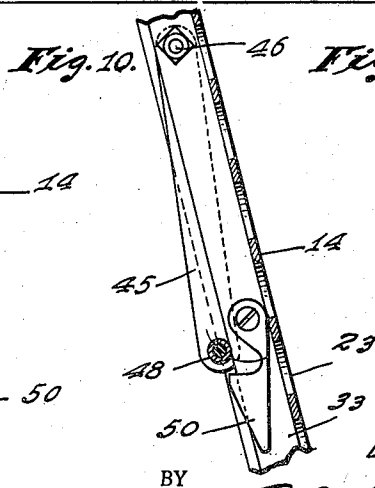
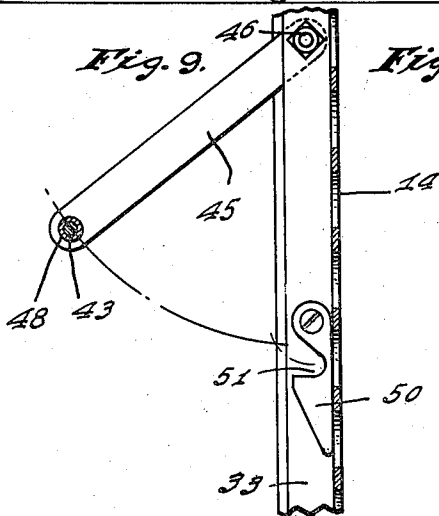
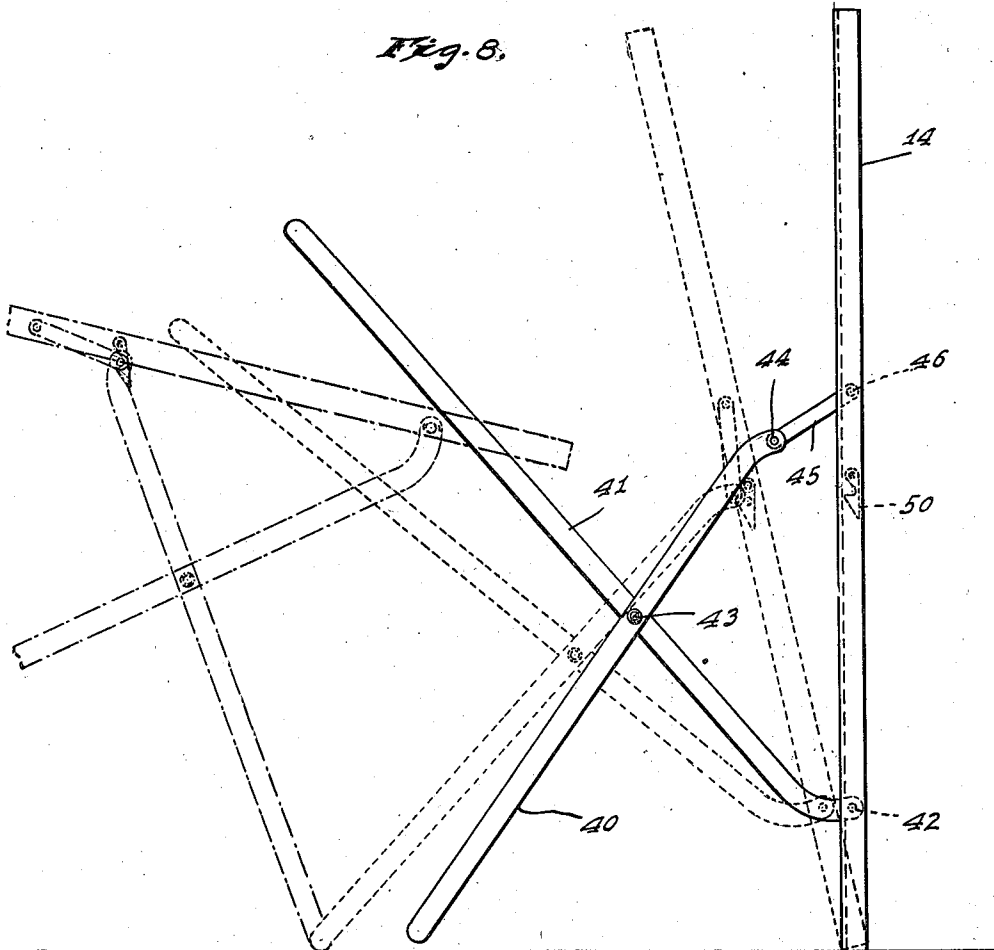
E. C. BOOTH

2,424,734

SECTIONAL IRONING BOARD HAVING FOLDABLE SUPPORTS

Filed Nov. 13, 1943

3 Sheets-Sheet 3



INVENTOR.  
EARL C. BOOTH,  
BY  
*Earl C. Booth*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE

2,424,734

## SECTIONAL IRONING BOARD HAVING FOLDABLE SUPPORTS

Earl C. Booth, Columbus, Ind., assignor to  
Noblitt-Sparks Industries, Inc., Columbus, Ind.,  
a corporation of Indiana

Application November 13, 1943, Serial No. 510,190

8 Claims. (Cl. 38-137)

1

It is the object of my invention to produce a folding ironing board which can be economically manufactured in quantity, which will be stable and rigid when erected, and which can be easily and quickly changed from erected to folded condition, and vice versa.

In carrying out my invention, I form the top of the ironing board from a plurality of elongated sections of sheet-metal each of which is provided with a downwardly projecting peripheral flange. These several sheet-metal pieces are placed in side-by-side relationship with the flanges on adjacent sides juxtaposed; and such juxtaposed flanges are then secured together to unite the several sheet-metal pieces into a unitary top. Additional means for uniting the several sheet-metal pieces and for bracing the top may be employed if desired. For the purpose of supporting the top, I employ two crossed, pivotally interconnected legs, one of which is pivoted to the top near one end thereof on a transverse axis and the other of which is connected through the medium of links to a point intermediate the length of the top. A latch co-operating with the free ends of the links serves to hold the ironing board in erected condition.

The accompanying drawings illustrate my invention: Fig. 1 is a plan view of the ironing board in erected condition with portions of the top broken away; Fig. 2 is a side elevation of the erected ironing board; Fig. 3 is a side elevation of the board in folded condition; Fig. 4 is a fragmental vertical section through the ironing-board top illustrating the latch by means of which the board is held in erected condition; Fig. 5 is a plan view of the ironing-board top with portions thereof broken away; Fig. 6 is a transverse section on the line 6-6 of Fig. 5; Fig. 7 is a vertical section through the top adjacent one of the strengthening ribs; Fig. 8 is an elevational view illustrating successive positions in the operations of erecting and folding the board; Figs. 9 and 10 are fragmental vertical sections on an enlarged scale illustrating successive positions in the operation of erecting the board; and Fig. 11 is a fragmental elevation illustrating the manner in which the folded board may be supported.

In the ironing board illustrated in the drawings, the top, designated in its entirety by the reference numeral 14, is composed of four sheet-metal stampings 15, 16, 17, and 18, each of which forms a longitudinally extending section of the top. The conventional ironing-board top is blunt at one end and tapered at the other. In conformity with this practice, the two central stampings 16

2

and 17 of my top extend for the full length of the board, and have their outer corners at the tapered end of the board rounded as indicated at 20 in Fig. 1 to meet, respectively, the oblique end edges 21 of the outer stampings 15 and 18. At the blunt end of the board, the ends of the stampings are flush with each other, and the outer corners of the stampings 15 and 18 are desirably rounded somewhat as indicated at 22. Over substantially their entire horizontal extent, the stampings are provided with perforations 23 affording ventilation for the cloth pad usually used on an ironing board.

Each of the stampings 15 to 18 is provided along its longitudinal edges with downwardly extending flanges 25 and across its ends with downwardly extending flanges 26. In assembling the several sections to form the complete top, the sections are arranged in side-by-side relationship with the longitudinal flanges 25 of adjacent sections juxtaposed; and such juxtaposed flanges are then secured together. Desirably, one flange of each juxtaposed pair is made wider than the other and its edge portion is turned upward to embrace the lower edge of such other flange, as indicated at 28 in Figs. 6 and 7. In addition, juxtaposed flanges may be spot-welded together as indicated at 29 in Fig. 7.

To strengthen and stiffen the top at its tapered end, I employ a metal reinforcing strip 30 (Fig. 5) which extends along and is desirably spot-welded to the inner faces of the end flanges 26 of all four stampings 15 to 18 inclusive. A similar reinforcing strip 31 extends continuously along the inner face of the flanges 26 at the blunt edge of the board; and the end portions of the strip 31 are desirably bent to extend for a distance along the inner faces of the outer flanges 25 on the outer stampings 15 and 18. The reinforcing strip 31, like the strip 30, is secured, as by spot-welding, to the flanges against which it lies.

Each of the three pairs of joined flanges 25 forms a reinforcing rib, designated generally by the reference numeral 33, which extends for the full length of the board. To provide additional stiffness and strength for the board I may employ stiffening members or braces extending between the ribs 33, as well as between the outermost of such ribs and the adjacent flanges 25 along the sides of the top. As will be clear from Fig. 1, these braces conveniently take the form of sheet-metal strips 35 bent into a truncated V-shape and adapted to extend between adjacent ribs 33 or between one of the outermost of such ribs and a flange 25 along the side edge of the top. As

3

shown in Fig. 1, there are two sets of the braces 35, one located near the blunt end of the board and the other near the tapered end of the board. In the former set, two outer braces 35 are disposed with their bases engaging respectively the flanges 25 at the edges of the top and with their ends engaging the outer faces of the outer ribs 33; while the inner braces 35 are arranged with their bases against the inner rib 33 and their outer ends against the inner faces of the outer ribs 33. Rivets 36 are employed for securing the reinforcing members 35 to the flanges 25 and ribs 33. The arrangement of reinforcing members 35 at the tapered end of the board is similar except that the inner members 35 are offset longitudinally of the board toward the tapered end thereof.

The support for the ironing board is provided by two pivotally interconnected legs designated respectively by the reference numerals 40 and 41, each desirably formed from a length of metal tubing bent to the desired shape. The longer of the two legs, indicated at 41, is pivotally attached, as by bolts 42 to the two outer reinforcing ribs 33 near the blunt end of the board and is adapted, when the board is erected, to extend obliquely downwardly and engage the floor or other supporting surface at a point beneath the tapered end of the board. The other leg 40 is pivotally interconnected with the leg 41 by a pivot bolt or rivet 43. Its upper end is connected by a pivot pin or bolt 44 with a pair of links 45, and the links 45 are in turn pivotally connected by co-axial pins or bolts 46 with the two outer ribs 33. To provide additional strength, the pivot pins 43 and 44 are desirably received within tubes 47 and 48.

The lower end of the shorter supporting leg 40 has a considerable extent transversely of the board in order to provide for lateral stability when the board is erected. The other leg 41, however, desirably is formed so that its lower end engages the floor or other supporting surface at a single point located centrally with respect to the ironing-board top, as will be clear from Fig. 1. Those ends of the legs 40 and 41 which are uppermost when the board is erected are bent toward the top 14 so that the legs may lie closely against the under surface of such top when the board is folded, as will be clear from Fig. 3.

When the board is folded, the links 45 extend from their pivot pins 46 toward the tapered end of the board, as shown in Fig. 3; and when the board is erected, those links extend generally in the opposite direction, or toward the blunt end of the board, as shown in Fig. 2. To hold the board in erected condition, there is pivotally attached to the center rib 33 a latch member 50 provided in one edge with a notch 51, the latch being so positioned along the rib 33 that, when the board is erected, the notch 51 will engage the tube 48 surrounding the pivot pin 43 by which the links 45 are interconnected with the shorter leg 40. In its operative position, shown in Fig. 4, the latch 50 extends obliquely downward toward the blunt end of the board, so that the force of gravity acting upon it will tend to keep it engaged with the tube 48.

The operation of erecting and folding the board will be apparent from Figs. 8 to 10. With the board folded, as shown in Fig. 3, it is placed in a vertical position with the blunt end of the top 14 on the floor or other supporting surface; and the free end of the leg 41 is then moved away from the top into the full-line position shown

4

in Fig. 8. In the swinging movement of the leg 41, the shorter leg 40 is also carried away from the board; and the force of gravity acting on the legs tends to hold them in the full-line position indicated, so long as the lower end of the leg 40 is above the floor. With the legs extended, the upper end of the top 14 is tipped toward the dotted-line position shown in Fig. 8, thus causing the lower end of the leg 40 to engage the floor. The upward reaction of the floor on the lower end of the leg 40 tends to swing such leg in a clockwise direction about its pivot bolt 43, thus causing the links 45 to swing in a counterclockwise direction about the axis of their pivotal connection with the top 14. The limit of this movement occurs when the tube 48 engages the lower edges of the ribs 33 on the top 14. The condition then existing is illustrated by the dotted lines of Fig. 8 and in Fig. 10.

From the dotted-line position shown in Fig. 8, the board is swung about the lower end of the leg 40 through the chain-line position shown in Fig. 8 to the position shown in Fig. 2.

When the operation of erecting the board is initiated, the latch 50 hangs in a substantially vertical position as shown in Figs. 8 and 9. As the top 14 swings toward a horizontal position in the operation of erecting the board, the link 50 swings under the influence of gravity to cause the notch 51 to take over the tube 48 on the pivot pin 43; so that when the erection of the board is completed the tube 48 will be located in the base of the notch 51. As a result, the ironing board can be handled from the top 14; and the latch 50 will prevent the upper end of the leg 40 from dropping away from the top when the top is lifted.

To collapse the board, it is rotated first about the lower end of the leg 40 through the chain-line position to the dotted-line position shown in Fig. 8 to bring the blunt end of the top into contact with the floor. Further rotation of the board about the point of contact between the top 14 and the floor brings it to the full-line position of Fig. 8. During these movements, the latch 50 swings toward a vertical position to disengage the notch 51 from the tube 48. The pivot pin 43 is located well above the center of gravity of the leg 40 so that when the lower end of such leg is moved clear of the floor as the board is brought into the full-line position the force of gravity tends to rotate that leg in a counterclockwise direction about the pin 43, thus causing the pivot pin 44, by which the leg 40 and links 45 are interconnected, to lie somewhat above the common plane of the pivot pins 43 and 46. In consequence, when the free end of the leg 41 is moved toward the top 14, the links 45 will continue their counterclockwise movement, and both legs will be brought against the under surface of the top into the position illustrated in Fig. 3.

The leg 41 is desirably made of such a length that its free end will project slightly beyond the tapered end of the top 14 when the board is folded. If the leg 41 is made of bent tubing or other structural shape, the board may be supported from a nail or peg 55 on a vertical wall 56, as indicated in Fig. 11.

I claim as my invention:

1. In an ironing board, a top comprising a plurality of longitudinally extending sheet-metal sections, said sections being provided with downwardly projecting flanges extending along their longitudinal edges, adjacent flanges of adjacent sections being juxtaposed and secured together to

5

form strengthening ribs for the top, and a folding support for said top, said support including one or more members pivotally connected to certain of said strengthening ribs.

2. The invention set forth in claim 1 with the addition that one of each pair of juxtaposed flanges is wider than the other and has its lower edge portion bent upwardly to embrace the lower edge of such other flange.

3. In an ironing board, a top comprising a plurality of longitudinally extending sheet-metal sections, said sections being provided with downwardly projecting flanges extending along their longitudinal edges, adjacent flanges of adjacent sections being juxtaposed and secured together to form strengthening ribs for the top, and one or more braces extending obliquely across each section and secured to the flanges at the edges thereof.

4. In an ironing board, a top comprising a plurality of longitudinally extending sheet-metal sections, said sections being provided with downwardly projecting flanges extending along their longitudinal edges, adjacent flanges of adjacent sections being juxtaposed and secured together to form strengthening ribs for the top, said sections also being provided at their ends with downwardly projecting flanges spaced from the ends of said longitudinal flanges, and a reinforcing strip of sheet metal extending across the ends of said longitudinal flanges along the inner faces of and secured to such latter flanges at each end of said top.

5. In an ironing board, a top and a folding support therefor, said support comprising two legs of unequal length, pivotally interconnected, and adapted to extend obliquely in crossed relation when the support is extended, the longer leg being pivotally connected at its upper end to said top on a transverse axis near one end thereof, and one or more links permanently interconnecting the upper end of the shorter leg with a point intermediate the length of said top, said links

6

extending from their point of connection with said top generally horizontally toward the upper end of the longer leg when the support is extended and in the opposite direction when the support is folded.

6. The invention set forth in claim 5 with the addition that the axis of pivotal interconnection of said two legs is located between the center of gravity of the shorter leg and its point of connection to said links.

7. The invention set forth in claim 5 with the addition of a releasable latch for holding said links in the position they occupy when the support is extended.

8. In an ironing board, a top comprising a plurality of longitudinally extending sheet-metal sections, said sections being provided with downwardly projecting flanges extending along their longitudinal edges, adjacent flanges of adjacent sections being juxtaposed and secured together to form strengthening ribs for the top, and one or more braces associated with each of said sections, each of said braces being of a truncated V-shape and having its base secured to one of the flanges of the associated section and its ends secured to the other of such flanges.

EARL C. BOOTH.

## REFERENCES CITED

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

## UNITED STATES PATENTS

Number	Name	Date
1,862,227	Mahon	June 7, 1932
190,140	Hotchkiss et al.	May 1, 1877
769,313	Higgs	Sept. 6, 1904
2,235,883	John	Mar. 25, 1941
2,219,679	Bush et al.	Oct. 29, 1940
2,293,807	De Brock	Aug. 25, 1942
1,982,399	Reitze	Nov. 27, 1934
2,101,597	Rich	Dec. 7, 1937
1,963,977	Flagstad	June 26, 1934