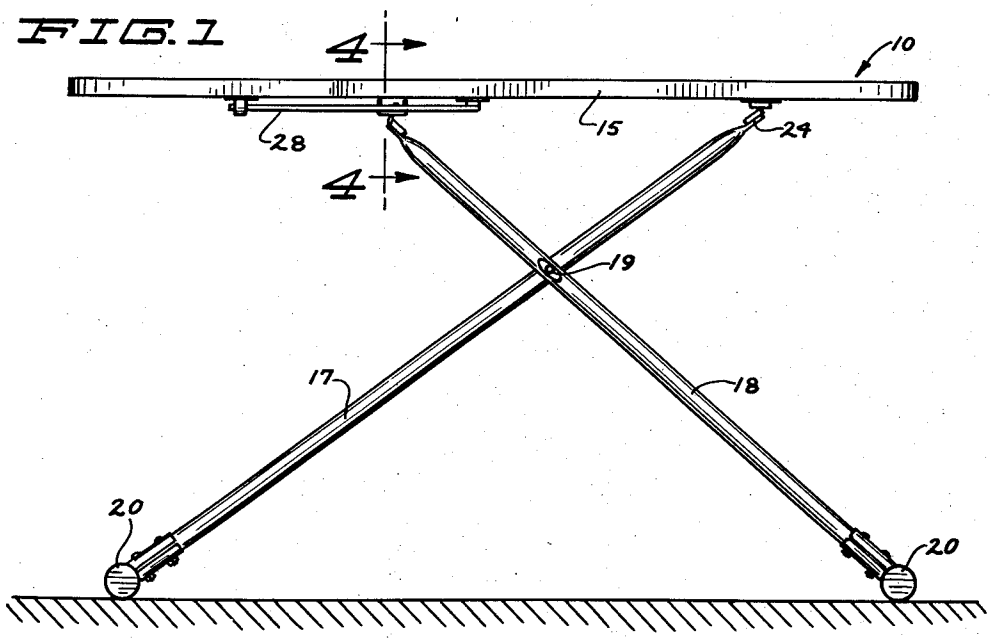
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LEG HINGE FOR IRONING TABLES

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FIG. 1



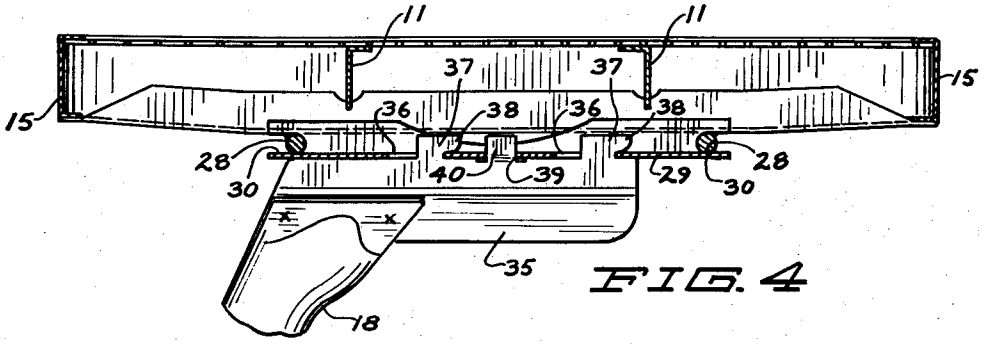
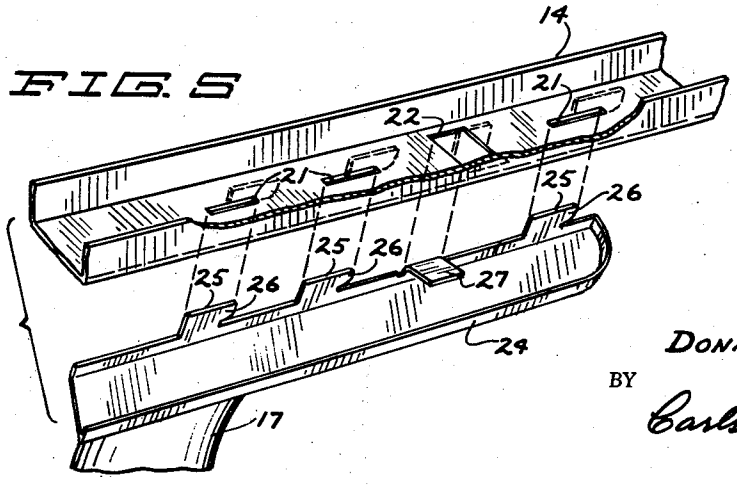


FIG. 4

FIG. 5



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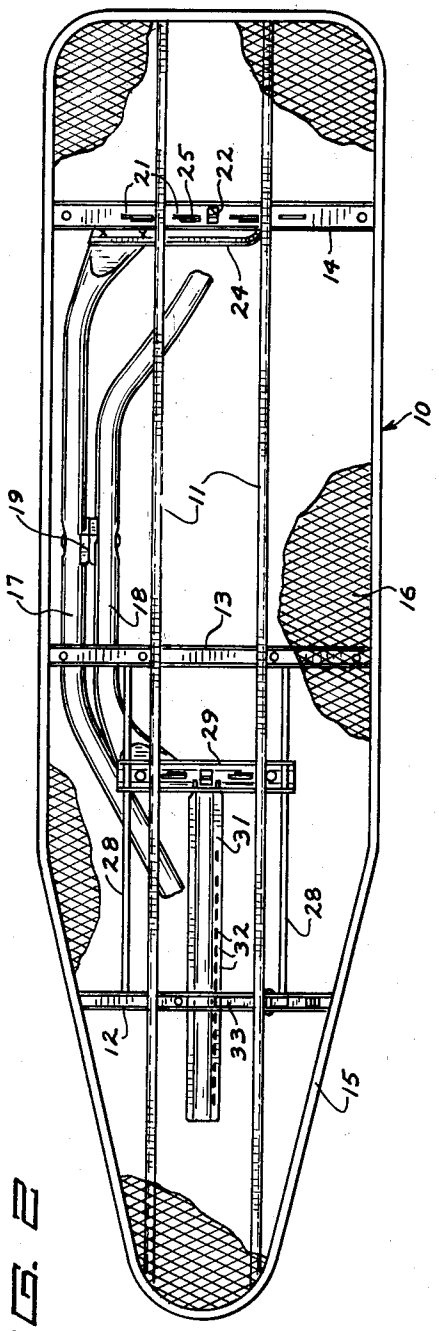


FIG. 2

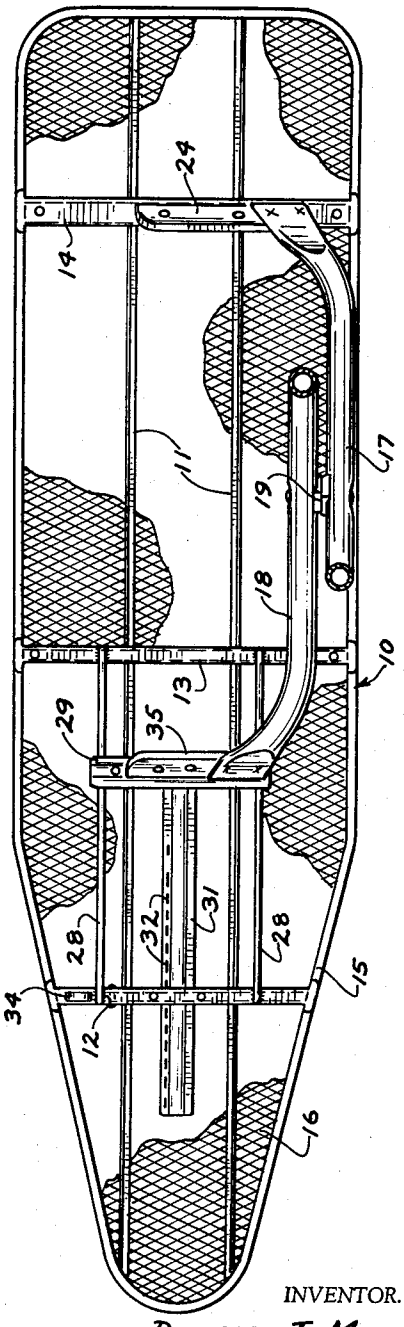


FIG. 3

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LEG HINGE FOR IRONING TABLES

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Filed Apr. 7, 1958, Ser. No. 726,914

1 Claim. (Cl. 16—172)

This invention relates generally to ironing tables and more particularly to means for attaching the table leg structure to the table top.

The principal object of the present invention is to provide a hinge construction for pivotally connecting a table leg to a table top wherein the hinge is formed by interlocking unitary portions of the leg and top themselves eliminating the necessity of hinge pins, rivets or the like and enabling the connection to be effected with a minimum of materials and labor.

Another object of the invention is to provide a hinge for pivotally connecting an ironing table leg to the table top which incurs a minimum of operating friction to virtually eliminate part deterioration caused by flexing, twisting or crystallizing such as occurs where hinge pins or rivets are used.

With the above objects in view the invention broadly comprises a transverse element mounted on the underside of the table top and having a plurality of transversely aligned slots therein, an extension on the upper end of the table leg lying under and parallel to said element and having a plurality of aligned teeth extending upwardly therefrom, said teeth having lateral projections whereby as the extension is moved upwardly to insert the teeth into said slots and then shifted laterally the teeth will form an interlocking connection with the element, and a locking tongue on the extension adapted to be moved into locking engagement with the element to prohibit return shifting movement of the extension to a position where the teeth may be withdrawn from the slots.

The above mentioned and other objects of the invention will be brought to light during the course of the following specification, reference being made to the accompanying drawings, in which—

Fig. 1 is a side elevation of a table in erect condition with the legs attached to the table top by the means herein disclosed.

Fig. 2 is a plan view of the table with portions of the top broken away for better observation of the hinge connections of the legs to the top.

Fig. 3 is an inverted plan view of the top and the upper leg portions.

Fig. 4 is an enlarged transverse vertical section through the top taken along line 4—4 of Fig. 1.

Fig. 5 is an exploded perspective view of the front leg hinge.

Referring now more particularly to the drawings reference characters will be used to denote like parts or structural features in the different views. The table top is denoted generally at **10**. It comprises a frame made up of longitudinal members **11** and transverse ribs **12, 13,** and **14** connected at their outer ends by a marginal rim **15** and over which lies a sheet **16** of flattened expanded metal or other rigid material adapted to provide a suitable ironing surface.

The front and rear supporting legs are respectively designated at **17** and **18**. These legs are in the form of singular metal tubes arranged in a longitudinally crossing

relation under the top **10** and being pivotally interconnected as at **19** at their point of crossing. Each leg carries a cross foot **20** at its lower end for transverse engagement with the floor. The upper ends of legs **17** and **18** are pivotally connected to the underside of the top **10**, one on a sliding pivot, for movement of the legs about their interconnection at **19** between erect and collapsed positions against the top. These pivotal connections will now be described in detail.

The rearmost transverse frame member **14** is an upwardly opening channel. The bottom wall of the member is provided with a series of transversely aligned and spaced slots **21** which extend longitudinally of the channel. Interspaced between two of the slots an enlarged rectangular opening **22** is provided. At its upper end the front leg **17** carries an integral transverse extension **24**. This extension has a plurality of hinge teeth **25** extending upwardly from the rear upper edge thereof. These teeth are aligned transversely and are spaced for upward insertion through the respective slots **21**. Each of the teeth **25** has a lateral projection **26** which extends over the body of member **24** in spaced relation. Accordingly as the teeth are slipped upwardly through the slots **21** and the member **24** shifted laterally the teeth portions **26** will engage over the bottom of channel **14** locking extension member **24** to the channel. Extension **24** also has a locking tongue **27** along its rear edge in transverse alignment with teeth **25**. This tongue is formed in the manufacture to angle forwardly as in Fig. 5 to allow the extension **24** to be shifted laterally during the attachment operation. It is so positioned intermediate teeth **25** as to be moved into vertical alignment with the opening **22** when the extension has been shifted laterally to engage projections **26** over the bottom wall of member **14**. Tongue **27** is then bent upwardly into the opening **22** to positively lock the extension **24** against return lateral movement relative to member **14** to a position where the teeth **25** may be withdrawn from the slots **21**.

The positions of the extension **24** relative to channel **14** before and after the mounting are respectively shown in full and broken lines in Fig. 5. The slots **21** are of sufficient width to allow the teeth **25** rocking movement therein in a fore and aft direction relative to the board. The connection between the members **24** and **14** accordingly provides a fixed hinge connection for folding the leg **17** toward and away from the board about a transverse axis.

The hinge connection for the rear leg **18** is similar to that just described. However, here the construction provides for slidability of the hinge longitudinally of the board **10**. A pair of guide rods **28** are mounted to extend longitudinally under the surface member **16** in transversely spaced parallelism by having their ends rigidly secured to the front and center transverse frame members **12** and **13**. A slide member **29** in the form of a transversely extending upwardly opening channel has outwardly opening notches **30** formed at the ends of the side walls for reception of the guide rods **28** (Fig. 4). Slide **29** is thus mounted on the rods for fore and aft sliding movement along the underside of the top **10**. A latch bar **31** is connected to the member **29** and extends forwardly through an opening in the frame member **12**. The bar is provided with a series of openings **32** which are engageable by a spring held locking element **33** mounted on member **12** and which may be operated to release the bar by means of a control **34**. Slide member **29** may thus be locked in various positions of adjustment.

A transverse extension **35** is mounted at the upper end of leg **18**. This extension is connected to the slide member **29** in substantially the same manner as extension **24** is to the channel **14**. The slide is provided with slots **36** which receive the transverse teeth **37** extending

upwardly from the extension **35** and having lateral projections **38** adapted to extend over the bottom wall of member **29** when the extension is laterally shifted (Fig. 4). Slide **29** is provided with an opening **39**, similar to opening **22**, intermediate the slots **36** through which the locking tongue **40** on extension **35** may be bent upwardly to lock the extension against lateral movement.

Projections **26** and **38** extend in the same lateral direction allowing the members **24** and **35** of the preassembled leg structure to be placed into position and shifted simultaneously into operative position prior to the upward bending of the locking tongues **27** and **40**. There is, of course, sufficient clearance in slots **36** to allow the teeth **37** fore and aft rocking movement. Slots **21** and slots **36** are parallel so that the axis of the two hinges formed are parallel.

It will be understood that the axis of pivot **19** is parallel to the two hinge axes connecting the legs to the table top so that as the slide **29** is moved forwardly the legs will pivot about their hinges and pivot **19** to a collapsed position against the underside of the top. Conversely, as the slide is moved rearwardly the legs will swing to an erected condition.

The hinges formed by the teeth locking over the connected channel bottoms are extremely simple to manufacture and assemble. Moreover they are durable and of such simplicity as to render mechanical failure virtually impossible. The hinge construction thus economically and effectively carries out the aforementioned objectives.

It is understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit and scope of the appended claim. Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

A hinge construction comprising a first element having a portion of sheet material provided with a series of elongated slots arranged in longitudinal alignment, a second element having a series of spaced flat teeth projecting outwardly therefrom in alignment on a common plane, said teeth being spaced apart equally with the spacing of the slots and each having a dimension longitudinally of their alignment which is less than the length of the slots allowing the teeth to be inserted into the respective slots in the first element, the teeth having planar unidirectional projections at their extended ends adapted to hook behind said sheet material when the second element is shifted longitudinally of the slots after such insertion to hold the elements together against separation in a relatively swingable condition about an axis extending along said slots, said first element portion having an opening aligned with the slots which is wider than the slots crosswise of the direction of such alignment, and said second element having a locking tab extending therefrom which is aligned with the teeth and movable between an inner position and an extended position, said tab positioned on said element longitudinally of the teeth to oppose the said opening in the first element after said longitudinal shifting to enter said opening when moved to its extended position to lock said second element against return shifting movement.

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