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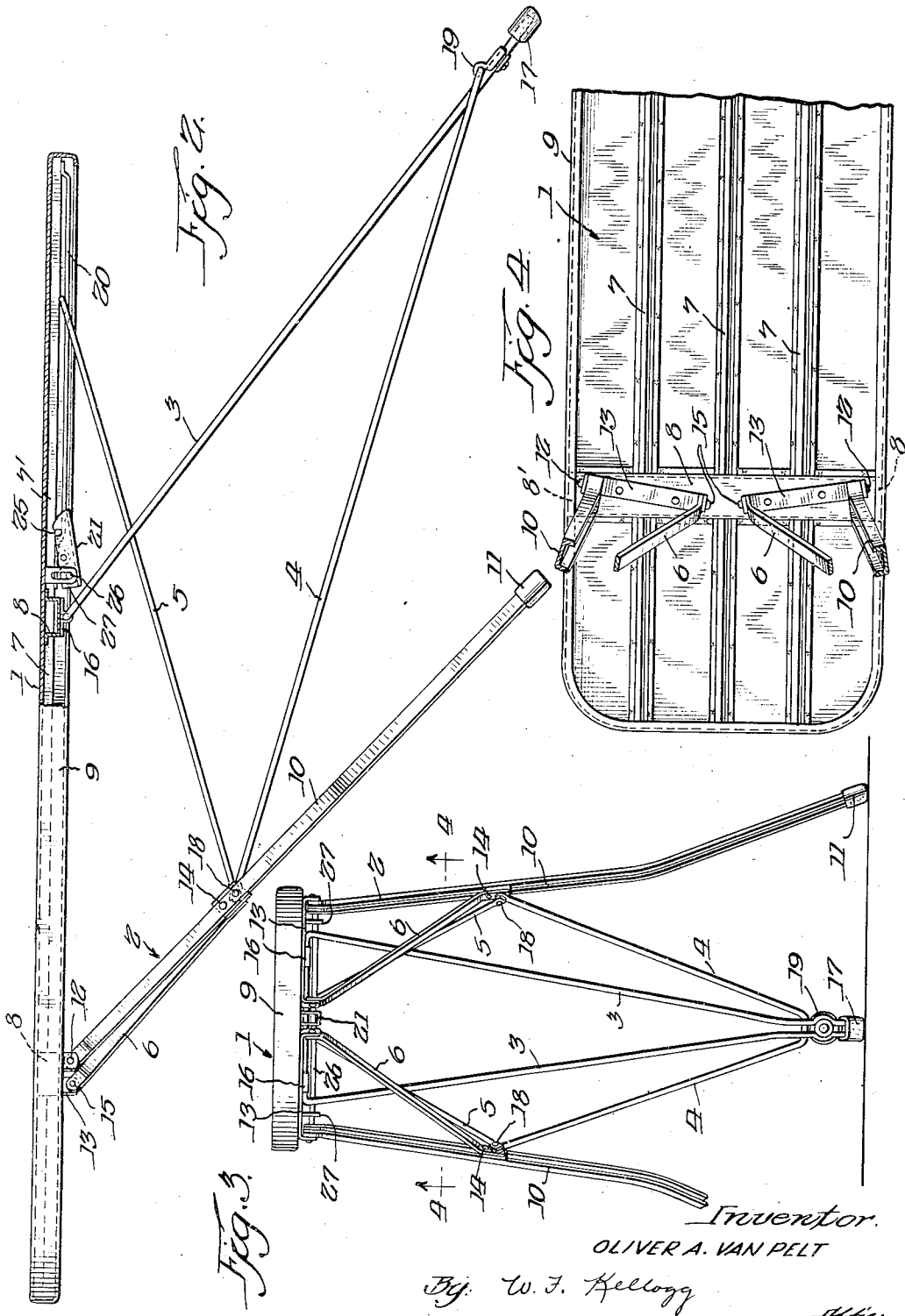
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CATCH CONSTRUCTION FOR IRONING TABLES

Filed Feb. 26, 1946

3 Sheets-Sheet 2



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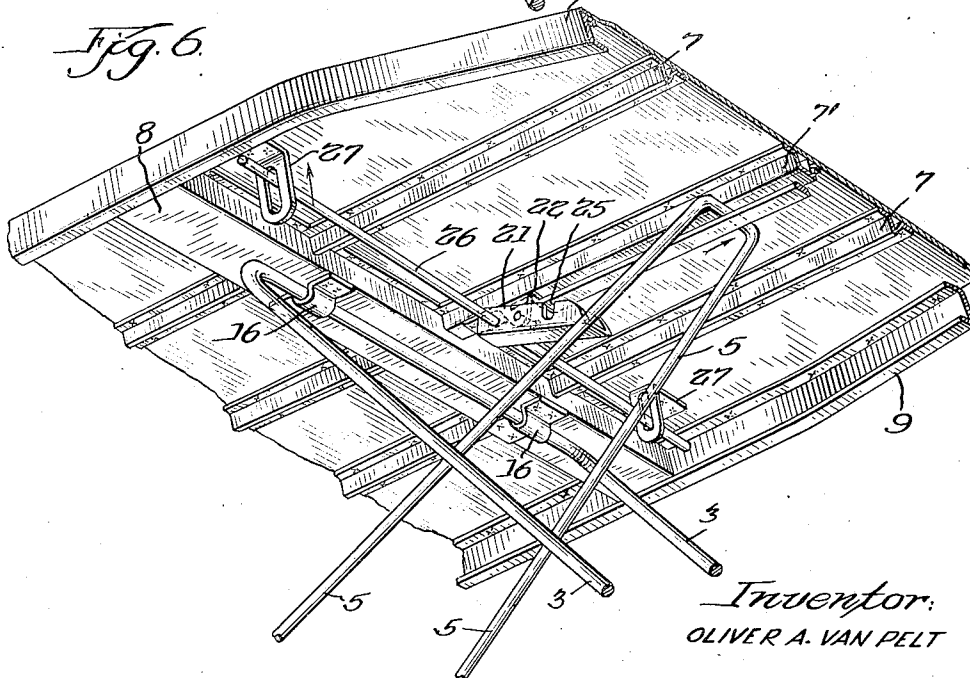
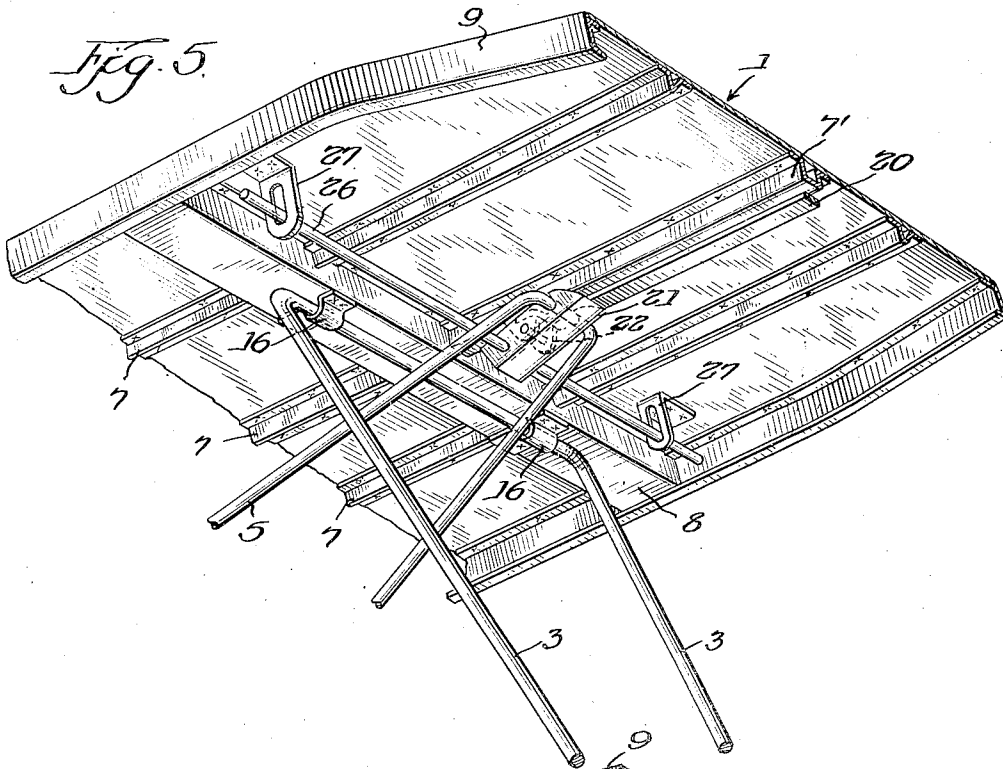
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CATCH CONSTRUCTION FOR IRONING
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This invention relates to improvements in ironing tables, and more particularly, to that type of ironing table whose supporting legs are conveniently capable of being collectively moved from inoperative positions, i. e., substantially parallel and juxtaposed relation to the table top, to operative positions, whereupon they will serve to firmly and securely support said top, at proper height, for ironing usage, and by the same token, may, when desired, be as conveniently collectively moved or returned to inoperative positions, hence, providing for compactness and permitting storage of the table in limited and out-of-the-way space.

The principal desideratum of the invention resides in providing the movable interconnected legs of the ironing table with catch or locking means of the semi-automatic operational character; automatically operative with movement of said legs into supporting relation to the top to engage and positively secure them against further, and especially, undesired movement, and when so wanted by the table user, capable of being manually disengaged from the legs by such user to release them and allow their free return movement to inoperative or folded relationship to the table top—all without need of the user changing or modifying his or her normal ironing position adjacent one or either side of the top.

Moreover, it is an object of my invention to provide the table leg catch or locking means with a sturdy, simple and operationally dependable device for imparting movement thereto, whereby the same, as and when desired by a user, can be actuated to impart movement to said means for effecting its positive disengagement from an adjacent portion of the previously locked or secured legs, thus permitting the latter to be moved into inoperative or folded relation to the table top; the said device being so constructed, mounted and arranged with respect to the table top as to absolutely avoid interference with proper and satisfactory ironing usage of the table by its user, and also, permit its quick and convenient engagement by said user for catch or lock release operation from a point at either side of the table without his or her changing positions.

The foregoing, as well as other objects, advantages and meritorious teachings of my invention, will be in part obvious and in part pointed out in the following detailed disclosure thereof, when taken in conjunction with the accompanying drawings, it being understood that the particular form of the invention presented herein is a pre-

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cise and what is now considered to be the best mode of embodying its principles, but that modifications and changes may be made in specific embodiments without departing from its essential features.

In the drawings:

Figure 1 is a side elevation of my improved ironing table in a set-up or operative position, with a portion of its top broken away and shown in section to illustrate catch means.

Figure 2 is a similar view in which the ironing table legs are shown in a partially folded or partially inoperative position.

Figure 3 is a rear end elevation of the ironing table with a part of its rear supporting leg structure broken away.

Figure 4 is a fragmentary horizontal section taken on the line 4—4 of Figure 3, looking in the direction in which the arrows point.

Figure 5 is an enlarged fragmentary perspective view illustrating the improved catch means in the pivotal mounting of the forward table leg on the table top and in which said catch means is shown in an operative position.

Figure 6 is a view similar to Figure 5, in which the catch means is shown in an inoperative position whereby to release table supporting leg structures for folding to inoperative positions, and

Figure 7 is an enlarged fragmentary detail in longitudinal section illustrating the catch means construction and its mounting; said catch means being shown in an operative position.

Referring in detail to the drawings, the improved ironing table, generally, consists of a top or ironing board 1; a main or rear supporting leg structure 2; a forward supporting leg structure 3; an oblique longitudinally disposed rear and forward supporting leg structure brace 4; an oppositely obliqued longitudinally disposed top-rear supporting leg structure brace 5, and top-rear supporting leg structure truss arms 6.

The top 1 comprises a flat sheet-metal (rearward portion tapered) body, longitudinally reinforced throughout its length by relatively spaced channel strips or ribs 7 continuously secured to its underside through welding or other suitable means, and transversely reinforced by channel bars or pieces 8 arranged in longitudinally spaced relation adjacent its under side and secured thereto by welding or other means comparatively near its rearward and forward ends. The channel bars 8, it will be noted, have appropriate portions of their sides recessed so that they straddle or saddle engage over and across adjacent por-

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tions of the channel strips or ribs 7. Also, it is to be noted that the intermediate channel rib 7 is made of two sections, one of which corresponds in shape to the outer strips, while the other and forwardly arranged one 7' is of substantially cross-sectionally U-shaped formation, the purpose of which will be hereinafter apparent. To effect an additional reinforcing of the top 1, more especially, to rigidify its outer marginal and near marginal portions, as well as to eliminate buckling thereof under stress, a channel (cross-sectionally U-shaped) strip 9 is joined, through welding or other connection, to the under side of its flat sheet-like body adjacent and about its edges. The opposite ends of the spaced transverse reinforcing bars 8 are suitably flanged, as indicated at 8', and joined to adjacent portions of the lower side of the stripping 9, thus, effecting a bracing and reinforcing interconnection between said bars and stripping for further strengthening of the table top.

The rear leg supporting structure 2, hereinafter identified as the rear leg, comprises two corresponding lengths of channel metal 10, preferably substantially U-shaped in cross-section, whose lower portions are outwardly obliqued in the manner shown in Figure 3 and provided with suitable feet 11, and whose upper ends are pivoted, as at 12, to the outer depending leg portions of U-shaped strap-brackets 13 fixed to the lower sides of that bar 8 nearer the rearward end of the top 1 in opposed relationship. The strap-brackets 13, as shown in Figure 4 of the accompanying drawings, are obliquely positioned with respect to said bar 8, and so, the inner and adjacent legged ends thereof extend rearwardly of their outer ends, the purpose of which will be presently apparent.

The top-rear leg truss arms 6 are formed with relatively angled extremities, as clearly shown in Figure 3 of the drawings, the lower of which are fixedly connected at 14, to corresponding intermediate portions of the channel metal leg lengths 10, and the upper thereof, pivotally connected at 15, to the rearwardly extended or offset depending leg portions of the U-shaped strap-brackets 13 (see drawing Figures 1 and 4). Thus, the truss arms 6 will function to materially strengthen the rear leg 2, particularly, at those times when stresses are directed thereto from the top 1, as during usage of the board.

Describing now, the forward supporting leg structure 3, hereinafter referred to as the forward leg, this comprises a length of suitable rod or bar metal stock triangularly or V-shaped (see Figure 3). The upper and wider end of said leg is pivotally connected by spaced brackets 16, to the lower flat side of the bar 8 nearer to the forward end of the top 1, and its lower and reduced or tapered end is equipped with a suitable foot 17, for an obvious purpose. Attention is here directed to the fact that the length of the forward leg 3 is such that when the same is pivoted to its operative or supporting position along with the rear leg 2, as shown in Figure 1 of the drawings, the table top 1 will be supported in a horizontal plane.

In order that the rear and forward legs 2 and 3 will be effectually and properly spaced and relatively braced at and throughout those times when they are arranged in their operative or supporting positions, I provide to my improved construction, an oblique longitudinally disposed rear and forward leg brace hereinbefore identified by the reference character 4. Said brace consists of a

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length of suitable rod or bar metal stock of V-shape formation. The free ends, i. e., the wider portion of the brace, are pivoted at 18, to intermediate portions of the relatively inner sides of the rear leg lengths 10, preferably, in proximity to the points of fixed connection of the truss arms 6 thereto, and the remaining reduced end of the same embraces the lower end portion of the table forward leg 3 and is pivoted thereto by a fitting 19 fixed thereon. The length of the rear-forward leg brace is such that when the rear and forward table legs are swung to their respective operative or supporting positions, they will be allowed to assume those, or approximately those angular positions illustrated in Figure 1 of the drawings. Thus, stability of support for the table top 1 will be afforded the construction, particularly to the extent that the rear and forward legs, when so positioned, will be prevented from having undesired shifting, folding or collapsing movement, and moreover, the catch means or leg and brace locking device, hereinafter more fully described, will be assured of positive operation.

The heretofore referred to top-rear leg brace 5, is made of a length of rod or bar metal stock bent into substantially V-shape formation. Said brace is of a length somewhat less than that of the brace 4 and it is oppositely obliqued longitudinally of the table assembly, having the free ends of its wider and rearwardly disposed extremity pivotally connected to the intermediate portions of the relatively inner sides of the rear leg lengths 10 adjacent the aforesaid pivotal connection of the brace 4 thereto and by the same connection 18.

The remaining and reduced end of the top-rear leg brace is slidably engaged or confined between the flat lower side of the hereinbefore described cross-sectionally U-shape rib 7' and an elongated guide bracket 20, secured thereto. As will be seen upon reference to Figures 2 and 6 of the accompanying drawings, the bracket 20 extends longitudinally of the rib 7' substantially throughout its length and is parallel thereto, hence, providing the slidably engaged end of the brace 5 with an effectual slideway. It will, therefore, be understood that with collective pivotal movement of the legs 2 and 3, by reason of their interconnection through the brace 4, like movement will be imparted to the brace 5, causing its free end to slide over and between the lower flat side of the rib 7' and its bracket 20.

To effect releasable locking of the aforesaid free and reduced end of the brace 5 in its operative position, to wit, the position shown in Figure 1 of the drawings, and thus, lock or retain the rear and forward table legs 2 and 3, interconnected by the brace 4, in their respective operating positions (supporting the table top 1) a channel metal constructed catch, generally identified at 21, is mounted on the inner end portion of the flat lower side of the rib 7' in proximity to the rear transverse channel bar 8. The catch 21 is pivoted to a winged bracket 22, riveted or otherwise connected to said bar 8, as at 23, and is normally retained in an operative or engaging position, by a coiled spring 24 on its pivot. Portions of the sides of the catch are complementally recessed, at 25, for engagement, at times, over the adjacent reduced end of the brace 5, and its remaining end portion fixedly receives an operating rod 26 therethrough, as clearly shown in Figures 5 and 6. The operating rod, whose length is slightly less than the width of the table top 1, is disposed transversely of the under side thereof and has its

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opposite end portions movably received through the vertical guide slots of angle brackets 27 fixed to appropriate under side portions of said top near its respective opposite sides. Because of the length of the operating rod 26, its opposite ends, as above stated, are arranged in proximity to the opposite sides of the top 1, readily and conveniently engaged by a user of the table, when so required; as, for example, when such user desires to manually move or pivot the catch 21 to disengage it from the reduced end of the brace 5 preparatory to folding or pivotally returning the table legs 2 and 3 to their inoperative positions (see Figures 5 and 6).

If desired, suitable handles, knobs, etc. (not shown) can be provided to the ends of the operating rod 26 to facilitate its engagement and operation.

In usage of my improved ironing table, to arrange the same in a set-up or usable position, the top 1 is preferably, though not necessarily, stood on end (rear end), whereupon the free end of the forward leg 3 may be conveniently engaged and swung downwardly and outwardly. Such motion will effect collective movement of the rear leg 2 and the aforesaid braces 4 and 5, causing them to move into the relationship shown in Figure 1 of the drawings. As the free end of the brace 5 slides longitudinally rearwardly of the under side of the table top 1 between the rib 7' and the elongated guide bracket 20, it will engage the adjacent end of the spring brace catch 21 and will lockingly enter into the recesses 25 in its sides. With the free end of the brace 5 thus lockingly engaged by the catch, it is manifest that the same and the interconnected rear and forward table legs 2 and 3 will be positively locked in "set-up" or operative relation to the table top 1 and that the ironing table is now ready for use.

To effect folding or collapsing of my improved ironing table, a user of the same, without changing his or her position adjacent either side of the top 1, need merely engage the particularly adjacent end of the vertically movably mounted operating rod 26 and to thereupon impart an upward thrust to the same. Such upward thrusting of said end of the operating rod 26, obviously, will effect pivotal movement of the spring brace catch 21 in a direction which will cause its disengagement from the adjacent free end of the previously engaged brace 5, i. e., the recesses 25 in the opposite sides of the spring pressed pivotal catch 21 will be removed or disengaged from the transversal free end of said brace 5. At this time, the user imparts a rearwardly directed push to the table top 1, thus, causing the interconnected legs 2 and 3 to be collectively swung or pivoted in the manner shown in Figure 2 of the drawings and the rear leg-top brace 5 to be slid forwardly and longitudinally of the top 1 between the rib 7' and the elongated guide bracket 20. The start of this folding or collapsing movement, and particularly, the start of the forward longitudinal movement of the brace 5, is well shown in Figure 6 of the drawings. If desired, and for convenience of the user, the table top may now be stood on end (preferably the rear end) and the interconnected pivotal legs then swung into their completely folded relationship to the underside of the table top 1, i. e., into substantial parallelism thereto. Concurrently therewith, it will be understood and appreciated that the braces 4 and 5 will also be moved to their completely folded or inoperative positions in substantial parallelism to the under side of the table top.

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An ironing table constructed in accordance with my invention will, as may be readily appreciated by workers skilled in this particular art, render dependable and satisfactory service to a user of the same. The construction of its legs and the relative bracing of the same provide for a maximum degree of stability of ironing table construction capable of most satisfactorily withstanding the normal stresses and even the abnormal stresses incident to usage thereof. Because of the construction and arrangement of the catch means for securing the brace 5 in its operative position, it will also be understood and appreciated that a user is enabled to conveniently and quickly manually release such catch means without the necessity of changing or modifying his or her position adjacent either side of the ironing table top; this being accomplished merely by the user engaging the particularly adjacent end of the operating rod 26 and thrusting or moving the same upwardly through the vertical guide slots of the bracket 27 (see Figure 6 of the drawings) to bring about pivotal movement or swinging of the catch 21 in a direction to be disengaged from the adjacent and previously locked free end of the brace 5. Incidentally, the rear leg-top brace 5 functions, more or less, in the capacity of a key locking device or means for the pivotally mounted rear and forward legs 2 and 3 respectively, which are interconnected by the brace 4 hereinbefore described, and so, are assured of relative collective movement in a manner to positively effect their positioning, as shown in Figure 1 of the drawings, for "setting-up" of the ironing table.

I claim:

1. In combination with an ironing table top and forward and rearward interconnected legs pivoted to the normally under side of the top and a substantially V-shaped brace pivotally connected at one end to one of said legs having its remaining and free end longitudinally of said under side of the top; a rib secured to and disposed longitudinally of an intermediate portion of the under side of the top and slidably receiving said free end of the V-shaped brace thereover, a guide bracket disposed longitudinally of said rib and connected thereto at its opposite ends, said guide bracket, between its opposite ends, being spaced from and substantially parallel to the adjacent and normally under side of the rib, the free end of said V-shaped brace being slidably confined between said rib and guide bracket, a catch consisting of a body of channeled material pivotally mounted intermediately of its opposite ends on said under side of the rib in proximity to one end of said guide bracket and disposed longitudinally of said rib and guide bracket, one of the end portions of the catch body being straddlingly engageable over a portion of the under and opposite sides of said rib and the remaining end portion of said catch body being straddlingly engageable over another portion of the under and opposite sides of said rib and over the adjacent end portion of said guide bracket, spring means engaging the catch body for normally retaining the remaining end portion thereof in straddling engagement over the rib and the guide bracket, said remaining end portion of the catch body having its opposite sides complementally rearwardly curved and said opposite sides having angularly disposed and upwardly opening recesses formed therein in proximity to the rearwardly curved sides of the remaining end portion of said catch body adapted, at times, to engage over the free end of said

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V-shaped brace and retain the same therein in bearing engagement with an adjacent portion of the under side of said rib and against sliding movement longitudinally of the rib and the guide bracket.

2. In combination with an ironing table top and forward and rearward interconnected legs pivoted to the normally under side of the top and a substantially V-shaped brace pivotally connected at one end to one of said legs having its remaining and free end movable longitudinally of said under side of the top; a rib secured to and disposed longitudinally of an intermediate portion of the underside of the top slidably receiving said free end of the V-shaped brace thereover, a guide bracket disposed longitudinally of said rib and connected thereto at its opposite ends, said guide bracket, between its opposite ends, being spaced from and substantially parallel to the adjacent normally under side of the rib, the free end of said V-shaped brace being slidably confined between said rib and guide bracket, a catch consisting of a body of channeled material pivotally mounted intermediately of its opposite ends on the under side of the rib in proximity to one end of said guide bracket and disposed longitudinally of said rib and guide bracket, one of the end portions of the catch body being straddlingly engageable over a portion of the under and opposite sides of said rib and the remaining end portion of said catch body being straddlingly engageable over another portion of the under and opposite sides of said rib and over the adjacent end portion of said guide bracket, spring means engaging the catch body for normally retaining the remaining end portion of the same in said straddling engagement over the rib and guide bracket, said remaining end portion of the catch body having its opposite sides complementally rearwardly curved, and the opposite sides of the catch body having angu-

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larly disposed and upwardly opening recesses formed therein in proximity to the rearwardly curved sides of the remaining end portion of said catch body adapted, at times, to engage over the free end of said V-shaped brace and retain the same therein and in bearing engagement with an adjacent portion of the under side of said rib against sliding movement longitudinally of the rib and the guide bracket, a transversely disposed rod fixedly connected to said first mentioned end portion of the catch body and extending for distances beyond the same into proximity to the opposite sides of the table top, and brackets connected to portions of the under side of the table top and disposed at substantially right angles thereto, each of said brackets having longitudinally disposed slots formed therein receiving adjacent portions of said rod there-through.

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