Jan. 12, 1943. L. C. WATLING 2,308,035

IRONING TABLE

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Fig. 1.

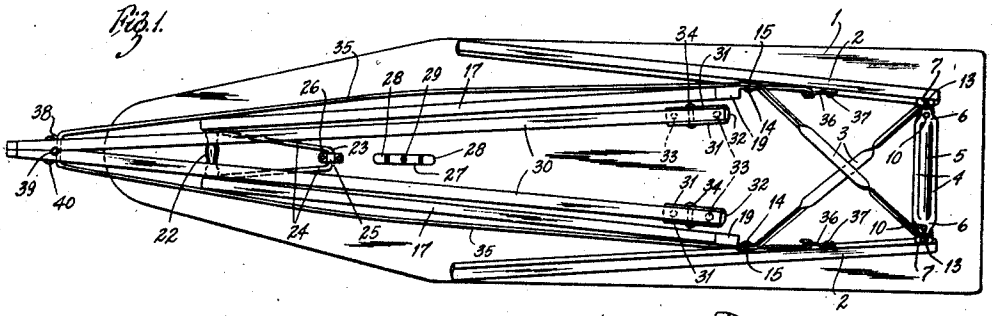


Fig. 2.

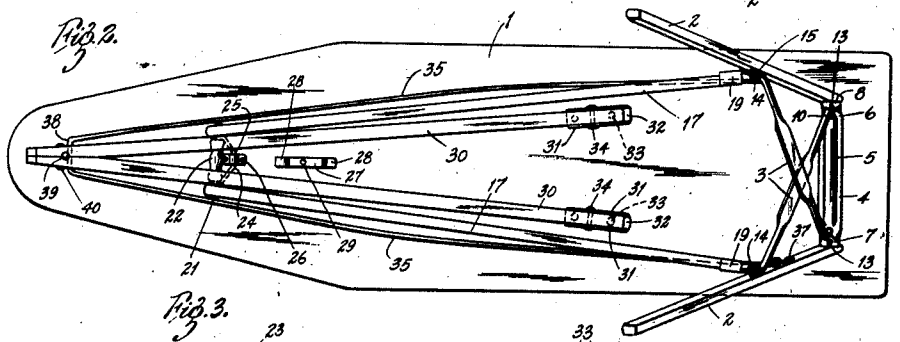


Fig. 3.

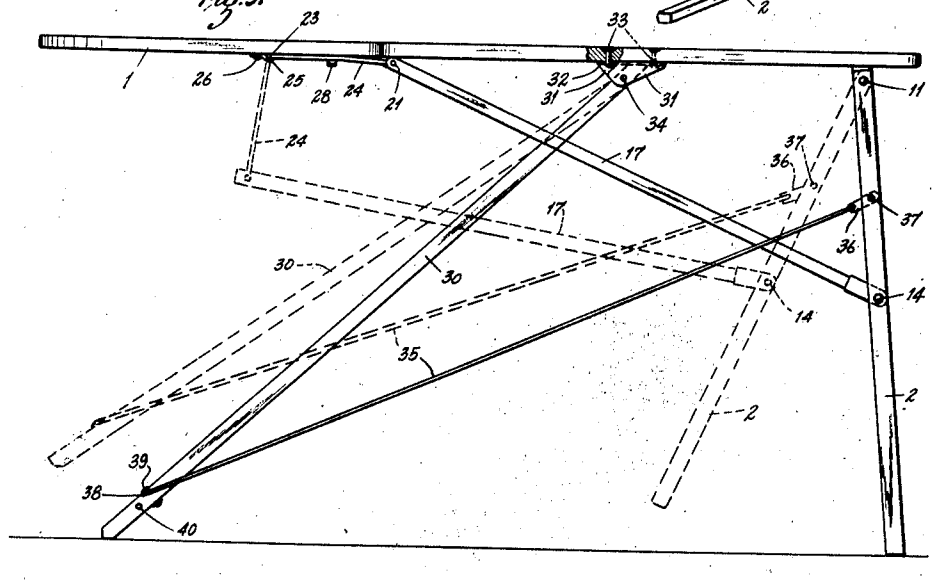
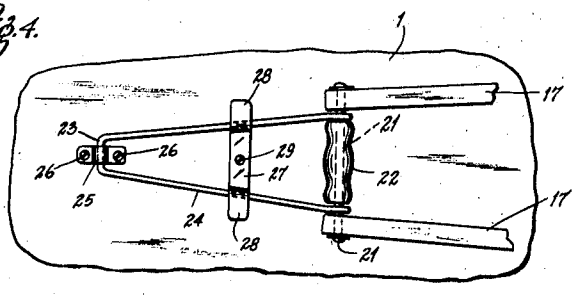


Fig. 4.



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Fig. 5.

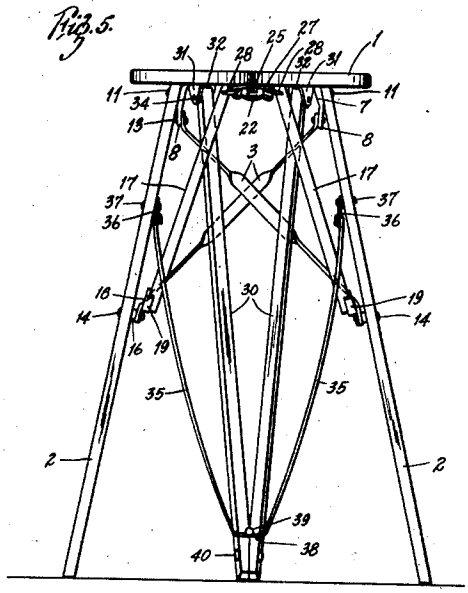


Fig. 6.

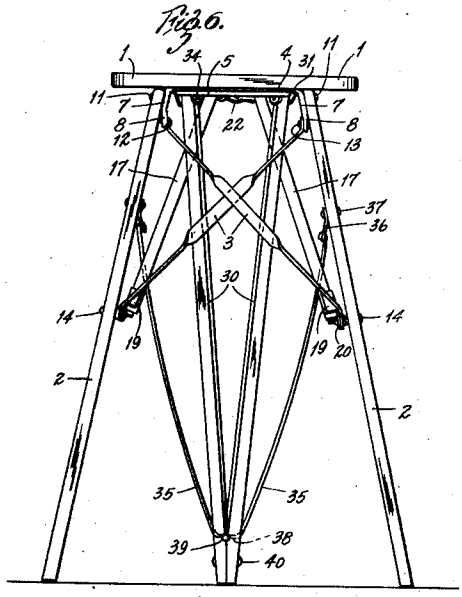


Fig. 11.

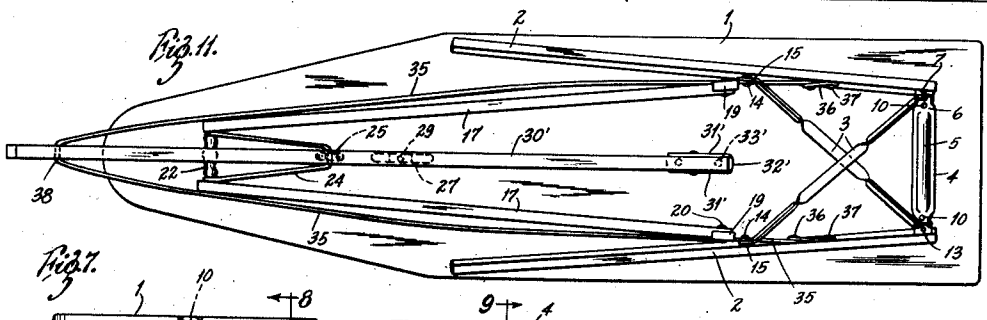


Fig. 7.

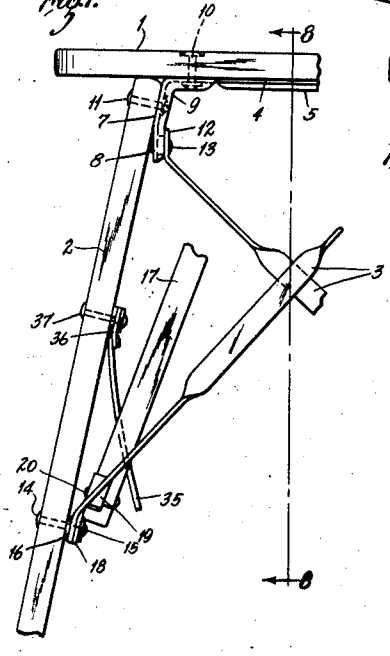


Fig. 8.

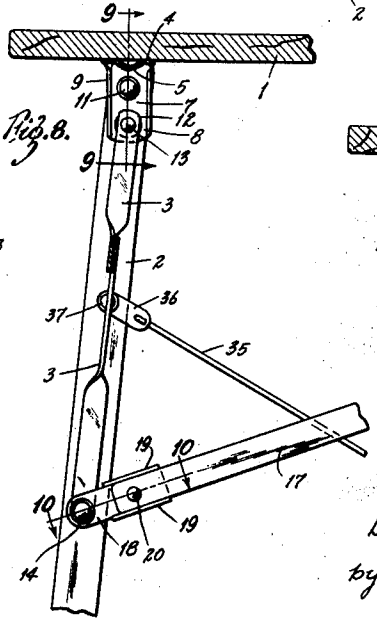


Fig. 9.

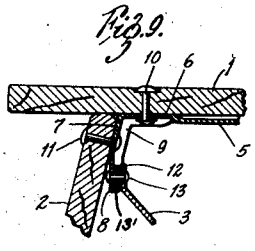
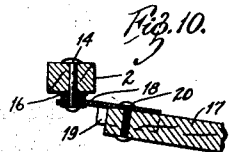


Fig. 10.



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Patented Jan. 12, 1943 2,308,035

UNITED STATES PATENT OFFICE

2,308,035

IRONING TABLE

Landon C. Watling, Webster Groves, Mo.

Application February 7, 1941, Serial No. 377,790

2 Claims. (Cl. 38—117)

This invention relates to ironing tables; and has special reference to portable ironing tables having hinged or foldable legs which may be moved to positions substantially flat against the table top for purposes of convenience.

An object of the invention is to provide an ironing table with a pair of rear legs having hinged connection with one end portion of the table top, front leg supporting structure having hinged connection with the table top in advance of the rear legs, top braces connected with the rear legs and with rear leg control braces by novel strengthening devices, flexible and resilient tension rods having their rear ends pivotally connected with the rear legs between the connections of said rear legs with the table top and their connection with said top braces and having their forward ends connected with said front leg structure in a manner to hold said parts in cooperative relationship and apply pressure to the top braces when the table is erected, and means positively cooperating with said top braces to prevent accidental collapse of the table.

Other objects will appear from the following description, reference being made to the annexed drawings, in which—

Fig. 1 is a bottom plan view of my improved ironing table in its folded or collapsed adjustment.

Fig. 2 is a plan view showing the leg and brace structure in an intermediate position through which said structure is moved either to erect or collapse the table.

Fig. 3 is a side elevation of the table set up for use, and also showing in broken lines the leg and brace structure in intermediate positions.

Fig. 4 is an enlarged view showing a portion of the top brace structure latched or secured in effective supporting position.

Fig. 5 is a front end elevation of the table opened for use.

Fig. 6 is a rear end elevation thereof.

Fig. 7 is an enlarged rear elevation showing the novel connecting devices pivotally connecting the rear legs and rear leg braces with the table top and with each other.

Fig. 8 is a sectional view on the line 8—8 of Fig. 7.

Fig. 9 is a sectional view on the line 9—9 of Fig. 8.

Fig. 10 is a sectional view on the line 10—10 of Fig. 8 showing the devices for connecting the top braces with the rear legs.

Fig. 11 is a bottom plan view showing an embodiment of the invention containing a single leg in the front leg supporting structure instead of two legs, as in the preceding views of the drawings.

The table top 1 is of conventional form and may be made of any desired material.

According to the invention shown in Figs. 1 to 10, inclusive, the attaching bracket for the rear legs 2 and rear leg braces 3 is preferably formed of sheet metal shaped to provide a transverse portion including flat margins 4, a longitudinal bead 5, and flat end portions 6 beyond the bead 5; downwardly diverging ears 7 integral with the ends of the flat portions 6 and having angularly disposed approximately vertical end portions 8; and downwardly and inwardly extended flanges 9 along the edges of the flat portions 6 and ears 7 (Figs. 7, 8 and 9). This bracket is extended transversely along the underside of the rear end of the table top 1 and attached thereto by fasteners 10 having their upper beaded ends countersunk or contained within recesses in the upper side of the table top. The formation of this sheet metal bracket with the longitudinal bead 5 and flanges 9 permits the use of relatively light or thin gage material and at the same time obtains the maximum strength required.

The upper ends of the rear legs 2 are seated flatwise against the outer surfaces of the ears and are connected thereto by pivots 11 which are angularly disposed with respect to the table top 1 and are normal or perpendicular to the planes of the ears 7 and the legs 2 (Figs. 7 and 9). Thus, when the legs 2 are extended to support the table, they diverge outwardly so that their lower portions are substantially laterally beyond the planes of the side edges of the table top while their upper ends are substantially inwardly from said side edges of the table top.

The upper ends of the rear leg braces 3 have angular portions 12 matching the angularly disposed end portions 8 of the ears 7 and connected therewith inwardly beyond the flanges 9 by pivots 13. To obtain maximum freedom of movement of the parts when the legs are extended or collapsed, the pivots 13 are arranged so that the pivot 13 at one side is approximately in axial alinement with the pivot 11 at the opposite side of the table top. Spacers 13′ are supported on the pivots 13 between the two side flanges 9 of each ear and between the ear and the adjacent end portion 12 of the brace 3. This permits free swinging movement of the braces about the pivots 13 and provides the desired frictional and resilient resistance. The rear leg braces 3 are crossed

and have their lower ends connected with the respective legs 2 by pivots 14 which are approximately parallel with the pivots 11 when the legs are extended. The action and effect of the braces 3 is to spread the legs 2 apart in downwardly diverging relationship when said legs are extended (Figs. 5 and 6), and to cause converging movement of the free ends of said legs so that they are contained within the dimensions of the table top when said legs are collapsed or folded against the table top (Fig. 1). The lower ends of the braces 3 have angular portions 15, duplicates of the angular portions 12, so that said braces are duplicates of each other and each brace is reversible end for end. This is to say that the angular portions 12 may be attached to the pivots 14 and the angular portions 15 may be attached to the pivots 13 interchangeably. Washers 16 are interposed between the lower ends of the braces 3 and the inner surfaces of the legs 2 (Fig. 7).

Top braces 17 are provided to cooperate with the table top 1 and with the legs 2 to hold the latter extended. The rear end of each brace 17 is attached to a bracket preferably made of sheet metal and comprising an elongated central portion 18 and a pair of side flanges 19. The ends of the braces 17 seat against the central portions 18 and between the flanges 19 of said brackets, and are attached thereto by fasteners 20.

In the form of the invention shown in Figs. 1 to 10, inclusive, the extended portions 18 of said brackets are mounted on the pivots 14. The front ends of the top braces 17 are spaced apart and attached together by a rod 21 having a handle 22 rotative thereon between said braces. A resilient bail comprising a pivoting portion 23 and diverging arms 24 having their ends pivoted to the rod 21 connects the ends of the braces 17 with the table top. The arms 24 have pivotal connection with the rod 21 at opposite ends of the handle 22, and may impart outward pressure against the braces 17, leaving said handle 22 freely rotative. The pivoting portion 23 is engaged by a bearing 25 attached to the table top 1 by removable and replaceable fasteners 26. The arms 24 are spaced apart far enough to permit the hand of the user grasping the handle 22 to pass freely between them. A button comprising at flat portion 27 and offset portions 28 is mounted on a pivot 29 and is rotative to a position in which the arms 24 of the pivoted bail are engaged by said offset portions 28 and held thereby against the underside of the table top. The button 27 may be turned about the pivot 29 to a position in which it is disengaged from the bail, leaving the bail free to be swung downwardly, as indicated by broken lines in Fig. 3, to fold or collapse the table legs.

The table shown in Figs. 1 to 6, inclusive, comprises two legs or members 30 forming the front leg supporting structure for the table. The upper ends of the legs 30 are spaced apart and extend between side flanges 31 of brackets 32 attached to the underside of the table top by fasteners 33 arranged like the fasteners 10. Pivots 34 connect the legs 30 with the brackets, leaving said legs free for swinging movement from extended position (Fig. 3) to a position adjacent to the underside of the table top. The legs 30 extend between the top braces 17, and consequently extend across the handle 22 when the table is folded. The flanges 31 constitute guides and braces for the legs 30 and contribute to the rigidity and firmness of the table when in use.

A bail is utilized to connect the rear legs 2 with the front legs 30 and to apply proper pressure and stresses to said legs and to the top braces 17 in cooperation with the bail 24 to prevent accidental collapse of the table and hold the table positively in open position. The bail is resilient and comprises a pair of arms 35 having their rear ends pivotally connected with links 36 attached by pivots 37 to the legs 2 approximately midway between the pivots 11 and 14; and a portion 38 integrally connecting the front ends of said arms 35 and extending across the forward edges of the legs 30 and held in pivotal connection therewith by a retainer 39 (Fig. 3). The lower or forward ends of the legs 30 are rigidly attached together by a fastener 40 which does not interfere with the pivotal movement of said legs about the pivots 34 nor with respect to the bail 35.

To open the table from the folded position shown in Fig. 1, the free ends of the legs 30 are swung downwardly far enough to permit the hand of the user to engage the handle 22. After the handle 22 is engaged, the parts may be moved thereby to the position shown in solid lines in Fig. 3, passing through the positions shown in broken lines. When the pivot 21 passes dead center position or beyond alinement with the pivots 14 and 23, the resiliency of the bracket 24 acts to complete the final movements of the parts to the positions thereof shown in solid lines (Fig. 3). This resiliency may be sufficient to hold the table open or extended, but I prefer to use the button 27 to engage the bail 24 and assist the resiliency thereof in holding the parts firmly and securely in their open positions. In the open positions of the table, the arms 35 press against the sides of the top braces 17 and thereby directly cooperate with the remaining structure to provide needed rigidity and to prevent oscillation of the table.

The table shown in Fig. 11 embodies the same structural elements as the table already described, with the exception that a single leg 30' constitutes the front leg supporting structure. Said leg 30' has its upper end extending between flanges 31' of a single bracket 32' located approximately midway between the side edges of the table. The single leg 30' is pivotally engaged by the cross-connection 38 connecting the forward ends of the resilient arms 35 of the leg bracing structure. When this table is opened, the resilient arms 35 apply pressure against the top braces 17 in the manner already described.

From the foregoing, it is apparent that this invention and each form thereof attains all of its intended objects and purposes efficiently and economically. The invention may be varied in other specific particulars than those mentioned without departure from the nature and principle thereof.

I claim:

1. In an ironing table having a table top, and a transverse sheet metal bracket attached to the rear underside of said top and having downwardly diverging ears integral with its ends and provided with substantially vertical lower end portions; a pair of rear legs pivoted to said ears above said lower end portions for swinging movements from positions along the underside of said table top to downwardly extended positions, front leg structure pivotally connected with the table top for supporting the front of the table, too

braces pivotally connected with said rear legs and converging forwardly therefrom and arranged to support the forward portion of said top, and duplicate reversible and interchangeable braces each having its two end portions bent in opposite directions from the plane thereof and each having its upper end portion pivoted to the vertical lower end portion of one of said ears below the pivot of the adjacent rear leg and its lower end portion pivotally connected with the opposite rear leg and top brace.

2. In an ironing table having a table top, and a thin sheet metal transverse bracket attached to the rear underside of said top and having downwardly extended ears integral with its ends; downwardly and inwardly extended flanges extending continuously along the side edges of said ears and along the side edges of adjacent end portions of said bracket and substantially preventing further bending of said ears, a pair of rear legs pivoted to the outer sides of said ears, converging top braces extending forwardly from said legs, movable means attached to the table top for holding said top braces in position to brace said top, front leg structure extending between said braces and having its upper end pivoted to said top, a resilient bail pivotally connected with said front leg structure and with said rear legs and extending along and resiliently pressing against the outer sides of said top braces, duplicate reversible and interchangeable braces each having its two end portions bent oppositely from the plane thereof, devices pivotally connecting the upper end portion of each of said braces with one of said ears between said flanges and holding said end portions spaced inwardly beyond said flanges for swinging movements, and means pivotally connecting said top braces and the lower end portions of said last named braces with said rear legs.

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