Dec. 2, 1930. D. M. LILLIBRIDGE 1,783,848

HAMMOCK OR GLIDER SUPPORTING FRAME

Filed March 11, 1929 2 Sheets-Sheet 1

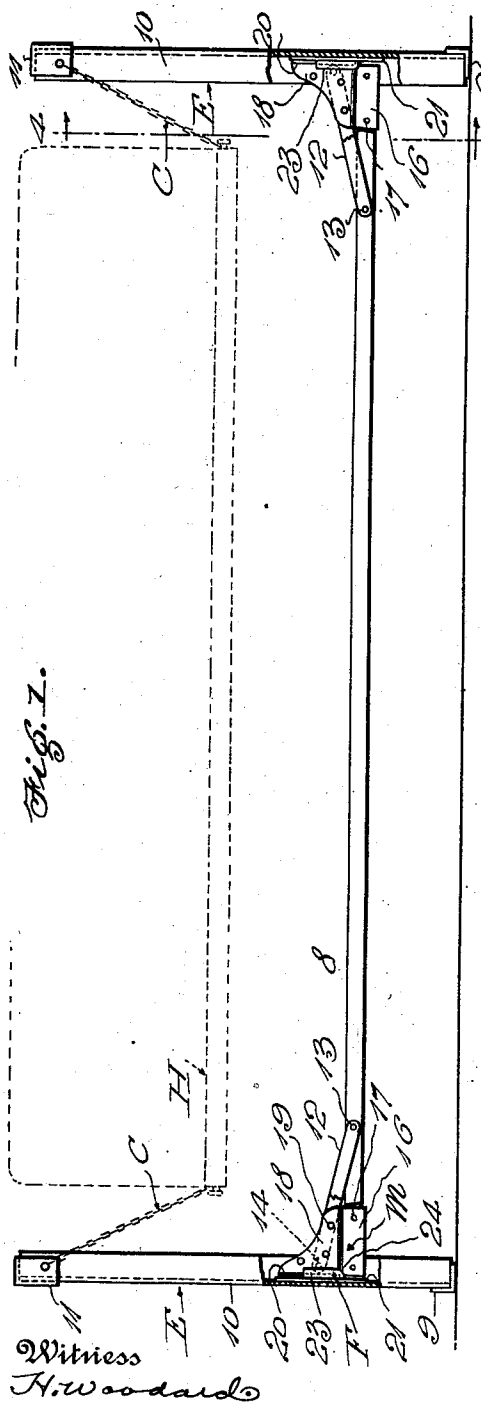


Fig. 1.

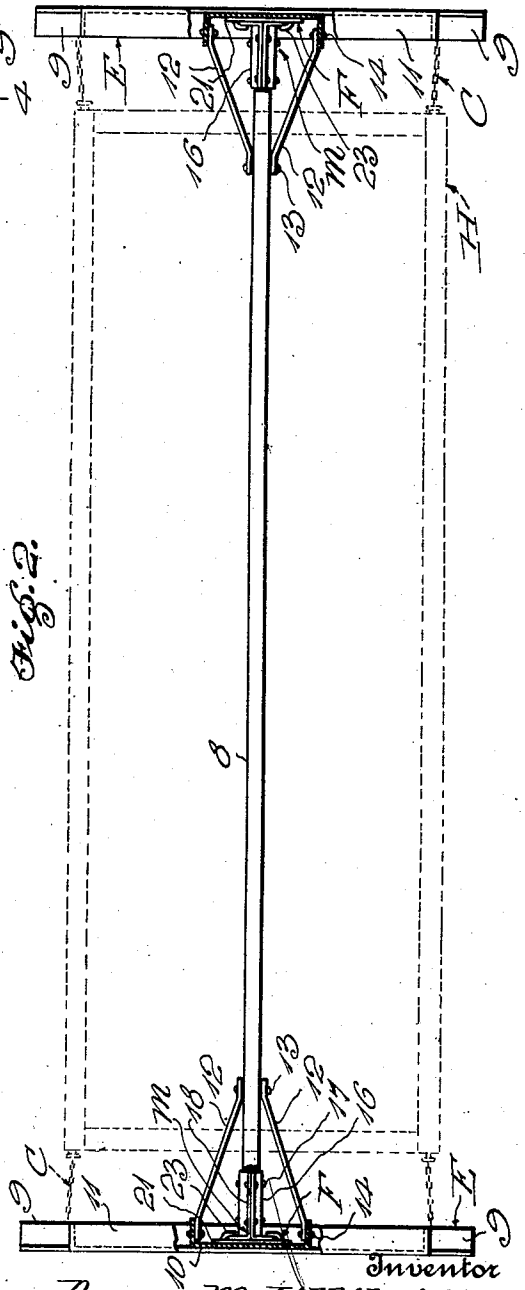


Fig. 2.

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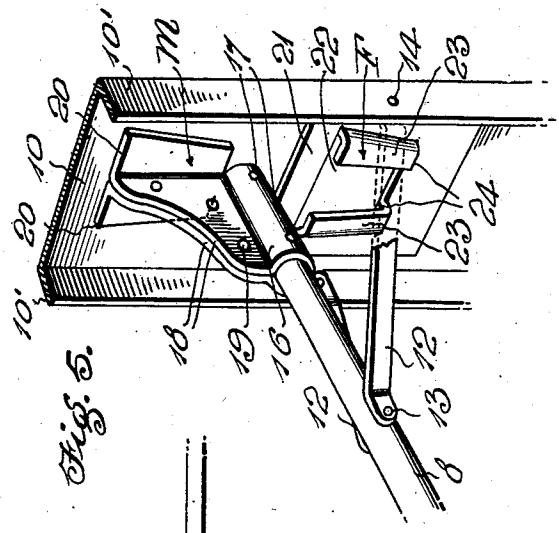


Fig. 5.

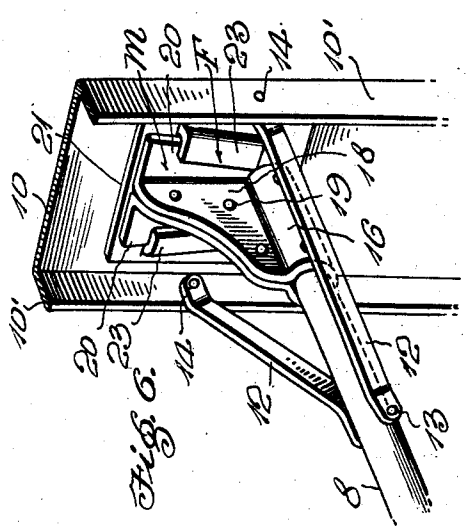


Fig. 6.

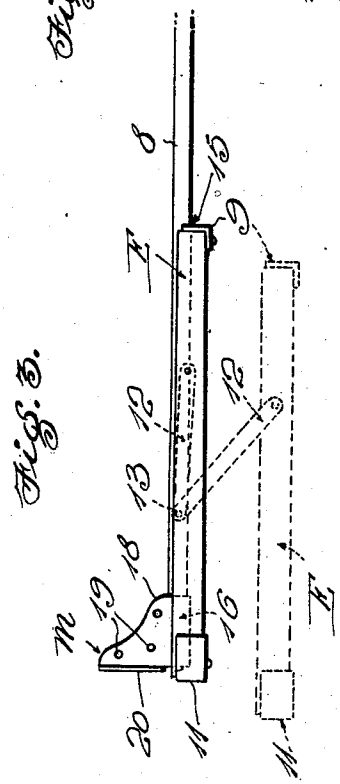


Fig. 3.

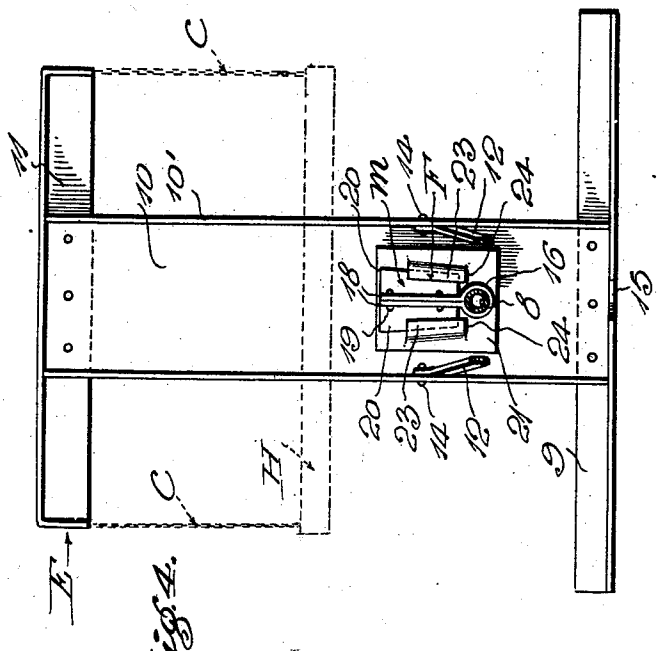


Fig. 4.

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UNITED STATES PATENT OFFICE

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HAMMOCK OR GLIDER SUPPORTING FRAME

Application filed March 11, 1929. Serial No. 346,188.

The invention relates to hammock or glider supporting frames of the general type having two vertical end frames from which the hammock or glider seat is hung, and a longitudinal tie member under the seat and connected with said end frames.

It is the principal object of the invention to provide a new and improved construction for supporting frames of the type set forth, of such nature that the end frames whenever desired, may occupy horizontal positions beneath the longitudinal tie member.

In carrying out the above end, certain links are employed as adjuncts to the principal connecting means between the end frames and the tie member, and further aims are to so relate these links with other parts as to cause them to effectively guide the end members toward their horizontal positions from their vertical positions and vice versa, and to cause said links to relatively brace the end frames and the tie member.

A further object is to provide an end frame of unusually simple and inexpensive construction, yet so formed that it will be rigid and will adequately perform the function for which it is designed.

A still further object is to provide a unique detachable connection between the end frames and the tie member.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawings.

Fig. 1 is a front elevation partly broken away and in section.

Fig. 2 is a top plan view partly broken away and in section.

Fig. 3 is a fragmentary front elevation showing one of the end frames folded to a position under the tie member and in dotted lines illustrating another position which the end frame assumes before reaching the full line position illustrated in this view.

Fig. 4 is a vertical transverse sectional view on line 4—4 of Fig. 1.

Fig. 5 is a perspective view illustrating the separable connection between the tie member and one end frame, the two portions thereof being in juxtaposition.

Fig. 6 is a view similar to Fig. 5 but showing the two portions of the separable connection engaged with each other.

The form of construction herein disclosed has proven to be efficient and desirable from all standpoints, and is therefore preferably followed. However, within the scope of the invention as claimed, variations may be made. For illustrative purposes, the specific construction which has been illustrated, will be described.

Two end frames E are shown held in spaced relation with each other by a tie bar 8 and novel connecting means between said frames and bar. Between the frames E, a hammock or glider H has been shown in dotted lines, and suspenders such as the chains C are employed for hanging the hammock or the like H from the upper portions of said frames E. The frames E are twins and hence a description of one will suffice. The same is true of the connecting means between the frames E and the bar 8.

End frame E embodies a horizontal base bar 9 of angle metal, a vertical relatively wide channel bar 10 having its lower end centrally secured to said base bar 9, and a top bar 11 of angle metal having its central portion rigidly secured to the upper end of said channel bar 10, the end bar 11 being of suitable construction for engagement with the suspenders C. By forming the end frame E in this manner, it is of unusually simple and inexpensive nature, yet it will well perform all functions for which it is designed.

The separable connection between the channel bar 10 and the tie bar 8, consists of female and male portions F—M carried by said bars respectively and confined between the inwardly projecting flanges 10′ of said bar 10. The details of these connecting portions F—M will be hereinafter fully described but at present it will suffice to say that these connecting portions are disengageable from each other when the end frame E is moved from the normally vertical position shown in Fig. 1 toward the horizontal position shown in full lines in Fig. 3.

Two links 12 extend longitudinally of an end portion of the tie bar 8 and have their inner ends pivoted to the front and rear sides of said bar respectively, as indicated at 13. The links 12 diverge outwardly and have their outer ends pivoted at 14 to the flanges 10′ of the channel bar 10, and when in their normal positions, the links 12 are inclined outwardly as seen in Fig. 1. Thus, the inclination and the divergence of the links cause said links to relatively brace the end frame and the bar 8 in a number of directions.

Attention is invited to the fact that the relation of parts is such that the links 12 may swing downwardly and inwardly from the normal position shown in Fig. 1 to the reversed position shown in Fig. 3. Moreover, the relation is such that as these links near said reversed position and the end frame E nears the full line horizontal position shown in Fig. 3, said frame E may move toward the links, as will be clear from this view. The result is that when the frames E are to be moved from their normal vertical positions, they may be horizontally disposed beneath the end portions of the bar 8, allowing the entire supporting frame to assume compact form for shipment or storage. A small notch 15 is preferably formed in the base bar 9 to receive the bar 8 when the frame E is in its horizontal position, and it will be observed that when said frame is in this position, an end portion of said bar 8 extends longitudinally within the channel of the channel bar 10, and both links 12 are also housed within said channel. Not only do these links assist in guiding the frame E to the folded position of Fig. 3, but when the frame is to be set up for use, said links perform a reverse guiding function so that the members M—F may be readily interengaged.

In forming the member M, I make use of a single sheet metal plate of suitable thickness. This plate is bent substantially upon itself at its transverse central portion to provide a sleeve 16 adapted to be secured around an end of the bar 8 by rivets or the like 17. The two ends portions 18 of the metal plate are extended in the same direction from the sleeve 16, preferably upward, and are tightly secured to each other by rivets or the like 19. Portions of these plate ends 18 at the outer end of the sleeve 16, are bent laterally in opposite directions to provide vertical flanges 20 whose outer edges preferably converge downwardly as seen most clearly in Figs. 4 and 5.

In forming the member F, I make use of a second sheet metal plate 21 of appropriate thickness. In this plate, I form a substantially rectangular opening 22 by a stamping process. Although this opening is of approximately rectangular form, its opposed vertical edges preferably converge downwardly to the same degree as the outer edges of the flanges 20 above described. Formed integrally with these vertical edges of the opening 22, are two flanges 23 which are inwardly offset from and parallel with the plane of the plate 21. At their upper edges, these flanges 23 are free from the upper edge of the opening 22 but the lower ends 24 of said flanges turn toward and are integrally joined to the lower edge of said opening 22.

By forming the members M—F in the manner shown and described, they are of simple and inexpensive construction, yet they may be readily engaged or disengaged and will be efficient for the purposes intended.

From the foregoing, taken in connection with the accompanying drawings, it will be seen that a generally improved and simplified construction has been provided, and attention is again invited to the fact that variations may be made within the scope of the invention as claimed.

I claim:—

1. In a hammock frame, an end frame embodying a vertical channel bar, the side flanges of said channel bar being disposed at the inner side of the frame, a horizontal tie bar to extend between said end frame and a twin thereof, separable connecting means between said tie bar and said channel bar and confined between said inwardly directed flanges of the latter, and diverging links pivoted to said bar at their inner ends and pivoted to said flanges at their outer ends.

2. In a hammock-supporting structure, a vertical end frame, a single substantially central horizontal tie bar to extend between said frame and a twin thereof, separable connecting means between an end portion of said bar and the lower end portion of said frame, the upper end of said frame having means from which to suspend a hammock seat above said tie bar, two links extending longitudinally of said end portion of said tie bar, means pivoting the inner ends of said links to the front and rear sides respectively of said bar, and means pivoting the outer ends of said links to said lower portion of said end frame, the latter, the pivots and the links being so related as to allow downward and inward swinging of said links to reversed position and movement of said frame to a horizontal position under said tie bar as said links near said reversed position, said links normally diverging from their inner to their outer ends to hold said end frame against canting into a vertical plane oblique to said tie bar.

3. A structure as specified in claim 2; said links being inclined when in normal position to hold said end frame against canting into an inclined plane.

4. In a hammock-supporting frame, two vertical end frames having front-to-rear supporting bases at their lower ends and pro-

vided with means at their upper ends for suspending a couch hammock, said end frames being provided near their lower ends with fixed coupling members, rigid horizontal spacing means extending between the lower portions of said end frames and rearwardly spaced from the front ends of said bases, additional coupling members secured to the ends of said spacing means and downwardly insertible into said fixed coupling members of the end frames, and front and rear links pivoted at their inner ends to said spacing means on horizontal axes spaced inwardly from the ends of the latter, the outer ends of said front and rear links being spaced horizontally forward and horizontally rearward from said fixed coupling members respectively and pivoted to said end frames on horizontal axes, whereby said links will guide said end frames to horizontal positions under said spacing means when the frame is to be folded, and will guide the two sets of coupling members into engagement when the end frames are again returned to their normal vertical positions.

In testimony whereof I have hereunto affixed my signature.

DUANE M. LILLIBRIDGE.