

June 15, 1954

J. M. VALLONE
ADJUSTABLE LOUNGE

2,681,099

Filed Dec. 7, 1951

2 Sheets-Sheet 1

Fig. 1.

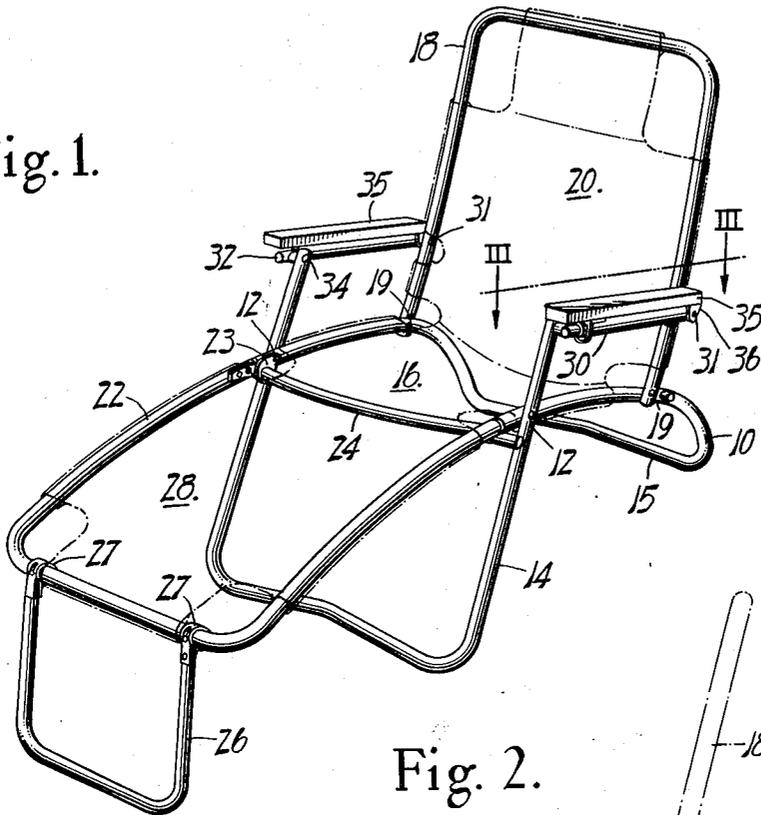
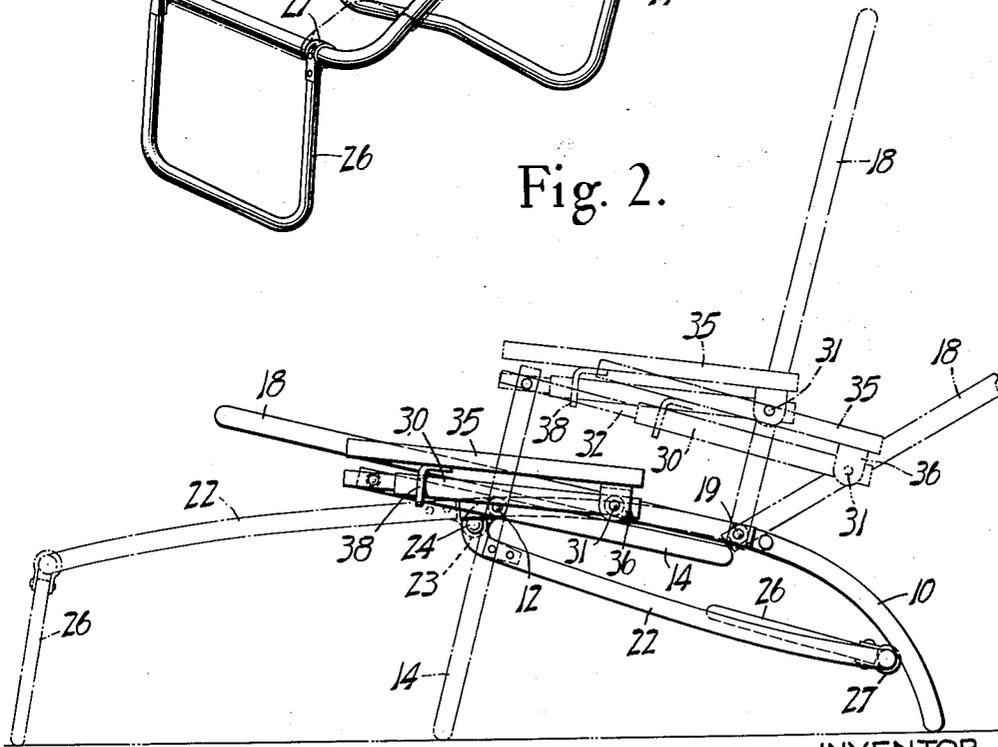


Fig. 2.



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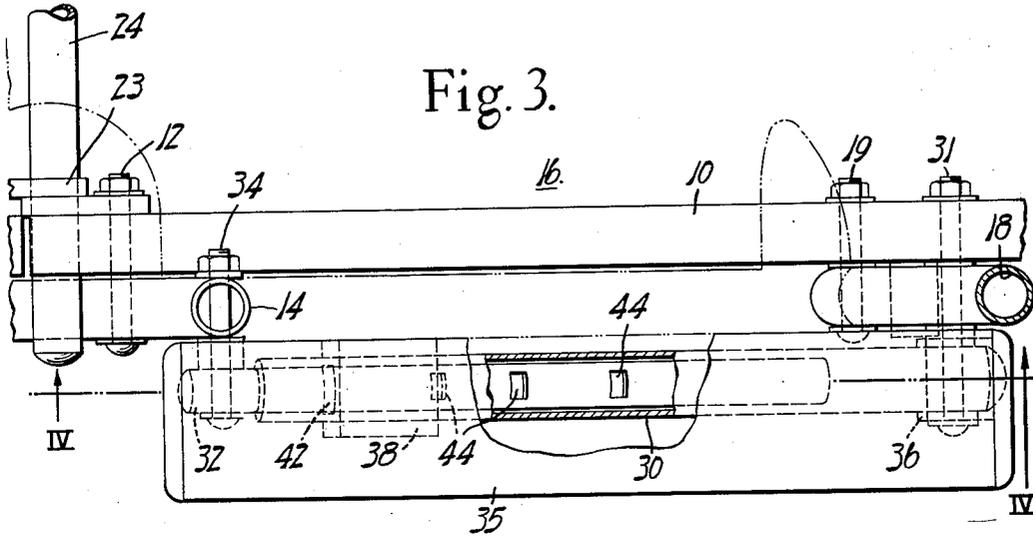


Fig. 3.

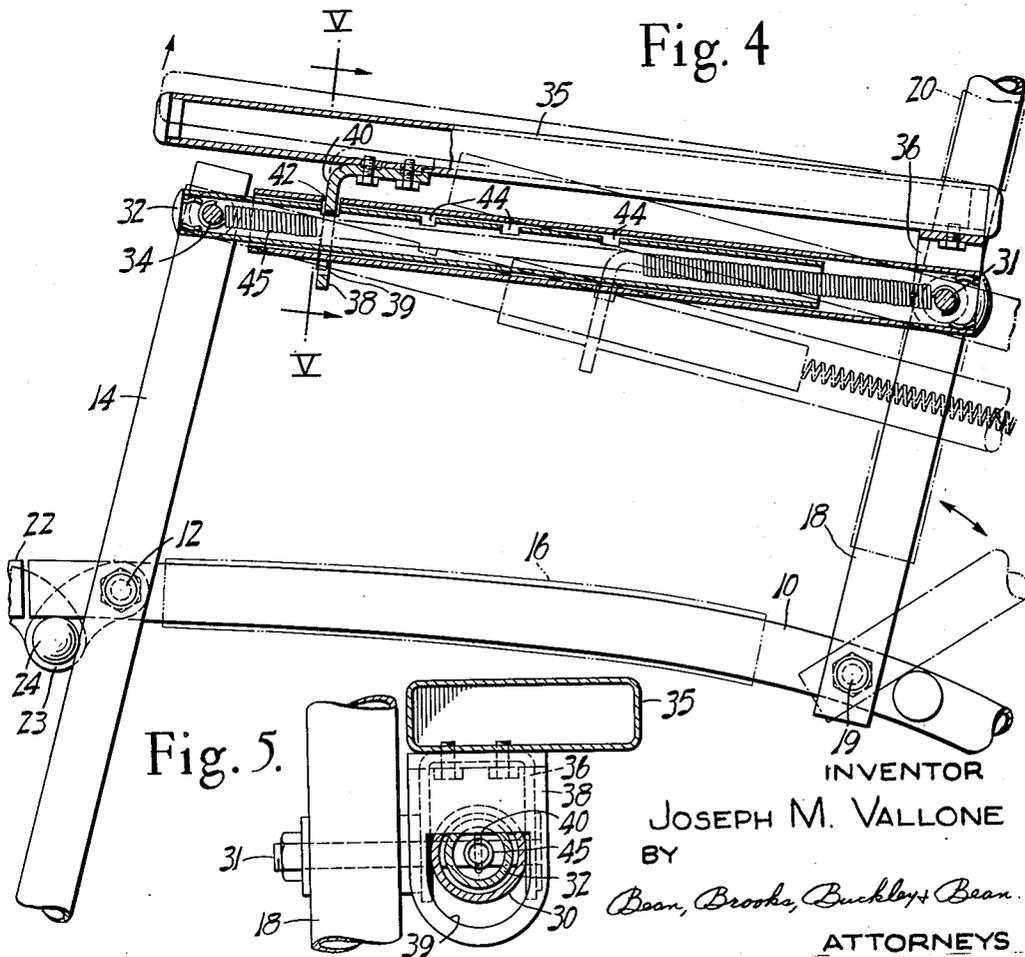


Fig. 4

Fig. 5.

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ADJUSTABLE LOUNGE

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Application December 7, 1951, Serial No. 260,533

7 Claims. (Cl. 155—105)

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This invention relates to adjustable reclining chairs or lounges, and more particularly to such devices of the outdoor type and which are adapted to fold for carrying or storage purposes.

One of the objects of the present invention is to provide in an adjustable reclining chair or the like an improved reclining adjustment control mechanism.

Another object of the present invention is to provide an improved adjustable reclining lounge or chair which is readily foldable for carrying or storage purposes.

Other objects and advantages of the invention will appear from the specification hereinafter.

In the drawings:

Fig. 1 is a top perspective view of the frame structure of a lounge chair of the invention;

Fig. 2 is a side elevational view showing in solid lines the lounge chair of Fig. 1 in folded condition, and in broken lines the lounge chair is shown in variously adjusted operating positions;

Fig. 3 is a fragmentary top plan view, taken along line III—III of Fig. 1, but on an enlarged scale, with portions broken away to show the reclining adjustment control mechanism;

Fig. 4 is a section taken along line IV—IV of Fig. 3, and

Fig. 5 is a section taken along line V—V of Fig. 4.

The invention is illustrated in the drawing as being embodied in a lounge-type reclining chair comprising generally a bent tubular frame structure adapted to have a covering of canvas or other suitable fabric spanning the seat and back portions thereof. However, it will of course be understood that the invention may be embodied with equal facility in a chair or lounge fabricated of other type parts formed of metal or wood or the like.

Referring now more particularly to the drawing, the improved chair construction as illustrated therein comprises a generally U-shaped base frame member 10 which pivotally connects at its opposite side portions by means of pivot connections 12—12 to corresponding opposite side legs of an inverted U-shaped frame piece 14. At its rear end the frame piece 10 is bent downwardly for ground contact purposes, as indicated at 15 (Fig. 1); and thus when the frame piece 14 is pivoted to a substantially upright position as shown in Figs. 1 and 4, and as shown by broken lines in Fig. 2, the members 10—14 cooperate to provide an elevated seat frame structure adapted to carry a seat canvas as indicated at

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16 or any other suitable type seat member in lieu thereof.

A back frame is provided as illustrated in the drawing to comprise an inverted U-shaped frame piece 18 which is mounted at its lower opposite side ends by means of pivot connection devices 19—19 upon the base member 10; and as indicated at 20 a back canvas or equivalent device is carried by the back frame member 18 to complete the back rest portion of the chair. A leg rest device is illustrated as comprising another U-shaped frame member 22 which is mounted at its opposite ends by pivot connection devices 23—23 to the corresponding forward end portions of the base frame member 10; the pivotal connections 23—23 being conveniently formed by means of pivot brackets extending rigidly from the members 10—22 and engaging a transverse brace bar 24 which is fixed at its opposite ends to the opposite leg portions of the base member 14. A vertical front support comprising a U-shaped frame piece 26 is hingedly connected as indicated at 27—27 to the front end portions of the leg rest member 22, whereby the leg rest member 22 may be conveniently propped up by the member 26 in any desired position of elevational adjustment. As indicated at 28 (Fig. 1), a canvas cover piece may be stretched across the leg rest frame member 22 to complete the body supporting portions of the chair structure.

To provide at once arm rests and means for controlling the angular adjustments of the back frame 18 relative to the seat frame 10, I show a telescopic tube device at each side of the chair including in each instance an outer tube 30 which is pivotally connected at its rear end to the back frame 18 by means of a bolt 31. A smaller tube 32 is telescopically fitted inside of each tube 30 and is pivotally connected at its front end by means of a bolt 34 to the upper end of the corresponding leg portion of the frame member 14. An arm rest 35 is pivotally mounted by means of a bracket 36 on the corresponding bolt 31 extending from the back frame member 18, and the parts are so dimensioned and arranged that the arm rest 35 is thereby disposed to lie above and parallel to the telescopic tube devices 30—32. Adjacent its forward end each arm rest device is fitted with a downwardly extending bracket 39 which is ported as indicated at 39 to accommodate in sliding relation therethrough the corresponding telescopic tube assembly 30—32. However, as shown more clearly in Fig. 5, the upper edge of the port 39 through the bracket

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member 33 is squared as indicated at 40 so as to be adapted to drop through a slot portion 42 in the upper surface of the telescopic tube 30 and to thereupon engage in either one of a series of notches 44 (Figs. 3-4) formed in the upper surface of the inner tube 32. Thus, it will be understood that the edge portion 40 of the bracket 33 is adapted to function as a latch device for locking the tubes 30-32 together in variously telescopically adjusted positions, whereby in turn to lock the chair structure in variously adjusted positions of angular adjustment of the back rest member 13 relative to the seat frame portion 10. A tension spring 45 is hooked at its opposite ends upon the bolts 31-34 respectively, and is so selected and dimensioned as to furnish a constant biasing force tending to pull the tubes 30-32 into completely telescoped position.

It is a particular feature of the chair construction of the present invention that the transverse bar 24 extends at its opposite ends beyond the positions of the pivotal connection devices 23 and into positions of interference with free pivotal movements of the upright frame portion 14 beyond the position thereof as shown for example in Figs. 1 and 4. Thus, when the chair is set up in operative position as shown in Figs. 1 and 4, for example, the arm rest devices 25 may be manually lifted so as to free the latch portions 40 from the tube slots 42 whereupon backward pressure against the back rest device 20 will cause the back rest portion of the chair to pivot rearwardly against the forces of the springs 45-45 to any position of rearwardly adjusted angularity relative to the seat portion of the device. Then, the arm rest devices may be released so that the latch portions 40 drop through the slots 42 and into one of the notches 44 of the inner tube member 32, thereby locking the telescopic tube device and the back rest device in the desired adjusted position for comfortable reclining purposes. Then, at any time the user may simply lift the front ends of the arm rests 35-35 to release the latching mechanism, whereupon the back rest will tend to move forwardly and assume its maximum upright position by virtue of the action of the springs 45.

Thus it will be appreciated that the back rest portion of the device may be readily adjusted and latched in any desired position by simply lifting up upon the front ends of the arm rests and then releasing them to obtain the desired latched condition. It will also be appreciated that this mode of latching control provides a marked advance in simplicity of construction and convenience of operation for the user, because it eliminates the necessity for fumbling around in an effort to locate some more conventional type of latching device. In fact, when the operator is reclining in the chair it is most natural for him to grasp the front ends of the arm rests with his hands and to pull upwardly thereon for latch adjustment purposes incidental to pull-in his body forwardly or pushing it rearwardly and as when getting in or out of the chair.

It will also be appreciated that by virtue of the construction as illustrated and explained hereinabove the chair device is susceptible of easy folding for storage or transport purposes. As illustrated in Fig. 2, for example, the back rest and arm rest elements are at all times freely pivotable forwardly as to the solid line reclining position thereof shown in Fig. 2, while the leg rests and vertical prop devices 22-26 are freely pivotable downwardly and under the frame mem-

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ber 10 as to the solid line positions thereof shown in Fig. 2. This nests the entire structure into an extremely compact and relatively flat unit such as may be readily picked up and carried from place to place and stored with utmost facility. It will be appreciated that this folding of the device is accomplished without disconnection and/or removal of any parts and without the use of any tool; and that therefore the unit is at all times readily usable and/or foldable into compact form in response to application of simple folding or unfolding pressures.

Although only one form of the invention has been shown and described in detail, it will be apparent to those skilled in the art that the invention is not so limited but that various changes may be made therein without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. An adjustable reclining chair comprising a seat frame member including means at the rear end thereof for ground contact purposes, a front support member for said seat frame member pivotally connected to the front end thereof and extending vertically thereabove, a back frame member pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front support member, a length adjustable telescopic tube device extending between said front support member and said back frame member and pivotally connected respectively thereto, an arm rest device pivotally connected at its rear end to said back frame member extending therefrom along said telescopic tube device, means carried by said arm rest device for detachably latching said telescopic tube device in different positions of relative telescopic adjustment, spring means normally biasing said telescopic tube device toward fully telescoped position, a leg rest frame member extending forwardly from said seat frame member and pivotally connected thereto, stop means carried by said seat frame member to limit the pivoting movement of said front support member in a chair opening direction relative thereto, and vertical prop means hingedly connected to said leg rest frame member for propping the latter in vertically elevated position.

2. An adjustable reclining chair comprising a seat frame member including means at the rear end thereof for ground contact purposes, a front support member for said seat frame member pivotally connected to the front end thereof and extending vertically thereabove, a back frame member pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front support member, a length adjustable spacing strut device extending from said front support member to said back frame member and pivotally connected respectively thereto, an arm rest device pivotally connected at its rear end to said back frame member and extending therefrom along said strut device, means carried by said arm rest device for detachably latching said strut device in different positions of length adjustment, spring means normally biasing said strut device toward fully retracted position, a leg rest frame member extending forwardly from said seat frame member and pivotally connected thereto, stop means carried by said seat frame member to limit the chair opening pivoting movement of said front support member relative thereto, and vertical prop means hingedly con-

ected to said leg rest frame member for propping the latter in vertically elevated position.

3. An adjustable reclining chair comprising a seat frame member including means at the rear end thereof for ground contact purposes, a front support member for said seat frame member pivotally connected to the front end thereof and extending vertically thereabove, a back frame member pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front support member, length adjustable telescopic spacing means extending from said front support member to said back frame member and pivotally connected respectively thereto, arm rest means pivotally connected at one end thereof to said back frame member and extending therefrom along said telescopic spacing means, means carried by said arm rest means for detachably latching said telescopic spacing means in different positions of relative telescopic adjustment, a leg rest frame member extending forwardly from said seat frame member and pivotally connected thereto, and stop means carried by said seat frame member to limit the chair opening pivoting movement of said front support member relative thereto.

4. An adjustable reclining chair comprising a seat frame member including means at the rear end thereof for ground contact purposes, a front support member for said seat frame member pivotally connected to the front end thereof and extending vertically thereabove, a back frame member pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front support member, length adjustable telescopic tube devices extending between said front support member and said back frame member and pivotally connected respectively thereto, arm rest devices pivotally connected at their rear ends to said back frame member and extending therefrom along said telescopic tube devices, means carried by said arm rest devices for detachably latching said telescopic tube devices in different positions of relative telescopic adjustment, spring means normally biasing said telescopic tube devices toward fully telescoped position, and stop means carried by said seat frame member to limit the chair opening pivoting movement of said front support member relative thereto.

5. An adjustable reclining chair comprising a seat frame member including means at the rear end thereof for ground contact purposes, a front support member for said seat frame member pivotally connected to the front end thereof and extending vertically thereabove, a back frame member pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front support member, length adjustable telescopic tube devices extending between said front support member and said back frame member and pivotally connected respectively thereto, arm rest devices pivotally connected at their rear ends to

said back frame member and extending therefrom along said telescopic tube devices, said tube devices being notched at intervals therealong, means carried by said arm rest devices for engaging said notches and detachably latching said telescopic tube devices in different positions of relative telescopic adjustment, spring means normally biasing said telescopic tube devices toward fully telescoped position, a leg rest frame member extending forwardly from said seat frame member and pivotally connected thereto, and stop means carried by said seat frame member to limit the chair opening pivoting movement of said front support member relative thereto.

6. A chair comprising a seat frame including leg means at the rear end thereof for ground contact purposes, front leg means for said seat frame pivotally connected to the front end thereof, a back frame pivotally connected to and extending vertically from said seat frame member at a position spaced rearwardly from said front leg means, said front leg means having integral extensions above the level of said seat frame, length adjustable telescopic position adjustment means extending between said front leg means and said back frame and pivotally connected respectively thereto, arm rest means pivotally connected at one end thereof to said back frame and extending along said telescopic position adjustment means, means carried by said arm rest means for detachably latching said telescopic position adjustment means in different positions of relative telescopic adjustment, spring means normally biasing said telescopic position adjustment means toward fully telescoped position, and stop means carried by said seat frame to limit the pivoting movement of said front leg means relative thereto in a chair opening direction.

7. A folding chair comprising a seat frame including leg means at the rear end thereof for ground contact purposes, front leg means for said seat frame pivotally connected to the front end thereof and extending transversely thereof, a seat back frame pivotally connected to and extending above said seat frame at a position spaced rearwardly from said front leg means, extensible spacing strut means extending between said front leg means and said seat back frame and pivotally connected respectively thereto, arm rest means pivotally connected at one end thereof to said seat back frame and extending therefrom along said spacing strut means, means carried by said arm rest means for detachably latching said spacing strut means in different positions of relative adjustment, spring means normally biasing said spacing strut means toward fully retracted position, and stop means carried by said seat frame to limit the chair opening pivoting movement of said front leg means relative thereto.

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Number	Country	Date
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