

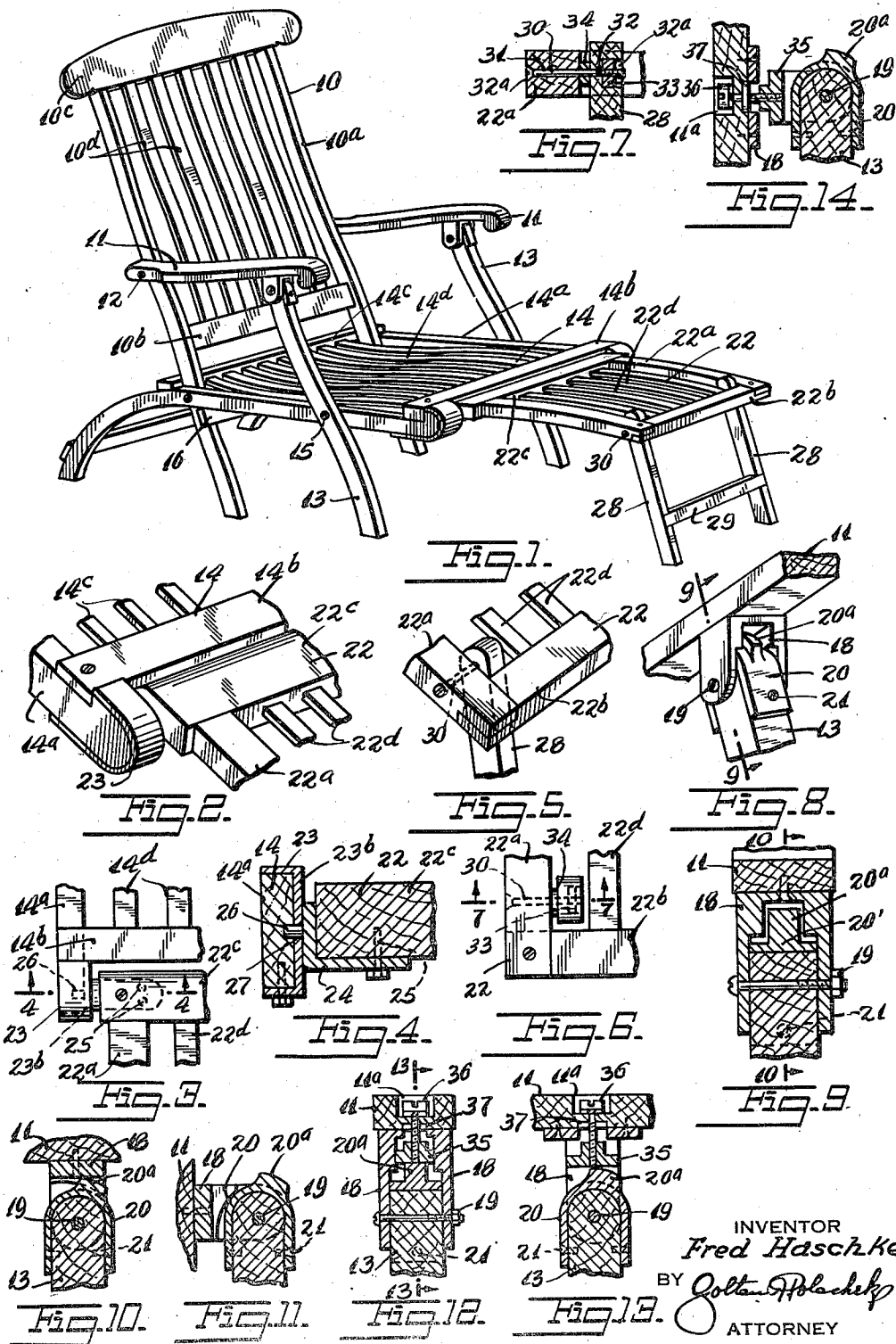
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FOLDING STEAMER DECK CHAIR

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FOLDING STEAMER DECK CHAIR

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2 Claims. (Cl. 155—117)

This invention relates to new and useful improvements in a folding steamer deck chair.

More specifically, the invention proposes the construction of a folding steamer deck chair characterized by the provision of an inclined chair back having arm rests extending forwardly therefrom and a seat connected therewith at its rear and having its front supported by means of legs with said legs extending upwards and being pivotally connected to the front end of said arms in a particular manner to permit said chair to be completely folded when not in use.

Still further the invention proposes the construction of a foot extension pivotally supported upon the front end of said seat member and extended therefrom for permitting one's feet to be rested thereon and being connected with said seat in a manner to be extended beneath said seat when so desired.

Another object of this invention is the provision of an abutment formed upon the upper ends of said front legs at the point of connection between said legs and said arms and engageable against the said arms for limiting the pivoting of said legs with relation to said arms for holding the chair in its open position.

A further object of this invention is the provision of an adjustable surface mounted upon said arm in the vicinity of said abutment and in a particular manner to be adjusted with relation to said abutment for controlling the position of said legs with relation to said arms before said abutment will strike said surface to control the inclination of said back with relation to said seat.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure—

Fig. 1 is a perspective of a folding steamer deck chair constructed according to this invention.

Fig. 2 is an enlarged perspective view of one corner of the seat and the foot extension.

Fig. 3 is an elevational view of Fig. 2.

Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

Fig. 5 is a perspective view of one of the outer corners of said foot extension.

Fig. 6 is a plan view of Fig. 5.

Fig. 7 is a sectional view on the line 7—7 of Fig. 6.

Fig. 8 is an enlarged perspective view of the pivotal connection between one of the front legs and one of the arm rests.

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

Fig. 10 is a sectional view on the line 10—10 of Fig. 9.

Fig. 11 is a view similar to Fig. 10 but illustrating a pivoted position of the arm rest.

Fig. 12 is a view similar to Fig. 9 but illustrating a modification of the invention.

Fig. 13 is a sectional view on the line 13—13 of Fig. 12.

Fig. 14 is a view similar to Fig. 13 but illustrating a pivoted position of the arm rest with relation to the leg.

The folding steamer deck chair, according to this invention, includes a vertical and rearwardly inclining chair back 10 having sides 10a the bottom ends of which rest upon the ground forming the rear legs of the chair. The chair back 10 is in the form of a frame with an end bar 10b extending between the sides 10a and spaced from the bottom end thereof. A second end bar 10c is extended between the upper ends of the sides 10a and a plurality of slats 10d are extended between the bars 10b and 10c forming a surface against which one's back may rest.

Horizontal arm rests 11 are pivotally connected with said chair back and extend forwards therefrom. The rear ends of the horizontal arm rests 11 are pivotally supported upon an intermediate portion of the sides 10a of the back 10 between the end bars 10b and 10c by means of pins 12 which extend through the ends of the arms and through the sides 10a.

Front legs 13 have their upper ends pivotally supported upon the front ends of the arm rests 11. The front legs 13 extend downwards and are inclined rearwards substantially parallel to the rearward inclination of the chair back 10. A seat 14 is pivotally mounted between the front legs 13 and extends rearwards and terminates in auxiliary legs extended to the rear of the legs formed by the bottom ends of the sides 10a of the chair back 10. The seat 14 is in the form of a frame comprising side members 14a which have their intermediate portions pivotally supported upon an intermediate portion of the front legs 13 by means of pins 15 which extend there-through.

A bar 16 is extended between the sides 10a of the chair back 10 and has its ends extended

beyond the width of the chair back and upon which the rear portion of the sides 14a of the seat 14 are adapted to rest. The rear ends of the sides 14a are extended beyond the back 10 and are curved downwards forming the auxiliary legs before-mentioned. An end bar 14b is extended between the front ends of the sides 14a and a second end bar 14c is extended between an intermediate portion of the sides 14a. A plurality of slats 14d are extended between the end bars 14b and 14c forming a surface upon which to sit.

The bar 14c is mounted upon and extended between the sides 14a of the chair seat 14 on the side of the sides 10a opposed to the bar 16. The bars 16 and 14c act to limit the movement of the sides 14a with relation to the sides 10a and provide a pivot about which the seat 14 is adapted to be pivoted with relation to the back 10 for folding the seat upon the back when the chair is closed.

The pivotal connection between the front legs 13 and the arm rests 11 consists of U-shaped members 18 which have their intermediate arms attached to the bottom face of the arms rests 11 with the arms of the U-shaped members 18 extending downwards therefrom.

The upper ends of the front legs 13 are adapted to be engaged between the arms of the U-shaped members 18 as shown in Fig. 8. Pins 19 extend through the arms of the U-shaped members and pass through the upper ends of the front legs 13 for pivotally supporting the front legs on the arm rests 11. A pivot limiting means is associated with the pivots of the arm rests and the front legs for holding the chair in its open position. This means comprises a U-shaped member 20 mounted upon the upper ends of the front legs 13 and which have their arms attached to the legs by means of screws 21 which pass there-through. The intermediate portions of the U-shaped members 20 are formed with abutments 20a which are adapted to strike the intermediate arms of the U-shaped members 18 in the completely open position of the chair as shown in Fig. 10 for limiting movement of the legs with respect to the arms rests in one direction only for holding the chair in its open position. The abutments 20a do not limit the legs from being pivoted backwards to a substantially parallel plane with relation to the arm rests 11 for permitting the chair to be closed.

A foot extension 22 has one of its ends pivotally supported upon the front end of the seat 14. The foot extension 22 is in the form of a frame comprising side arms 22a. An end bar 22b is extended between the outer ends of the side arms 22a. A second end bar 22c is supported between the inner ends of the side arms 22a and a plurality of slats 22d are extended between the end bars 22b and 22c forming a surface upon which one's legs may rest.

A means is provided for pivotally supporting the inner ends of the foot extension 22 upon the front end of the seat 14. This means is in the form of U-shaped members 23 which are engaged around the front ends of the sides 14a of the seat 14. The inner faces of the U-shaped members 23 are closed by means of webs 23b which extends along the inner face of the front ends of the sides 14a. L-shaped members 24 are mounted upon the end bar 22c. The L-shaped members 24 have one of their arms mounted upon the bottom face of the end bars 22c by means of screws 25 and the other of their

arms extend upwards along the ends of the end bar 22c. A peg 26 is mounted upon the upwardly extending arms of the L-shaped members 24 and engage into openings 27 formed in the webs 23b of the U-shaped members 23 for pivotally supporting the back end of the foot extension 22 upon the front end of the seat 14.

A means is provided for supporting the front ends of the foot extension 22 in a plane substantially parallel with the plane of the seat 14 and comprises a pair of legs 28 which have their upper ends pivotally mounted upon the front ends of the side arms 22a of the foot extension 22. The legs 28 extend downwards and have their bottom ends connected together by means of a bar 29 which extends there-between.

The pivotal connection between the side arms 22a and the legs 28 is accomplished by means of screws 30 which pass through openings 31 formed in the side arms 22a and which pass through similar openings 32 formed in the top ends of the legs 28.

A nut 33 is adapted to be engaged on the screw 30 and within a recess 32a which extends from the opening 32. That portion of the screws 30 which pass through the side arms 22a are not formed with threads. A washer 34 is mounted upon the screw 30 and is interposed between the adjacent faces of the side arm 22a and the leg 28.

In the folded condition of the chair the legs 28 of the foot extension are adapted to be swung rearwards and engaged between the side arms 22a thereof, and the entire foot extension including the legs 28 is adapted to be swung downwards and rearwards into a position extended parallel with and below the seat 14. The seat 14 including the foot extension 22 and the legs 28 are then adapted to be collapsed upon the chair back 10 causing the front legs 13 to assume a position parallel with the arm rests 11 which also have assumed a position parallel with the chair back 10.

According to the modification of the invention shown in Figs. 12 to 14 inclusive a means is provided for controlling the distance to which the front legs 13 will pivot before the abutment 20a strikes the U-shaped member 18 for controlling the inclination of the chair back 10 with relation to the seat 14. This means comprises a square plate 35 which is mounted between the arms of the U-shaped member 18 and which is limited against rotating by its engagement with the side arms and which is adapted to be extended and retracted with relation to the U-shaped member 20 for controlling the distance through which the legs 13 may be pivoted before the abutment 20a will strike there-against as shown in Fig. 13.

The means for extending and retracting the plate 35 comprises a screw 36 which has its head located within a recess 11a formed in the arm rest 11. The shank portion of the screw 36 extends through the arm rest 11 and is formed with a collar 37 adjacent the bottom face of the arm rest 11 which prevents the screw 36 from moving upwards with relation to the arm rest 11 but which leaves the screw free to be rotated. The bottom end of the screw 36 threadedly engages into the plate 35 and when the screw 36 is rotated in one direction or the other the plate 35 is extended or retracted, depending on the direction of rotation for moving it closer to or further away from the U-shaped member 20. When the plate 35 is moved closer to the U-shaped member 20 the abutment 20a will strike

the plate 35 more quickly, limiting the pivoting of the back 10 to a position in which it will be more nearly perpendicular with relation to the seat. However, if the plate 35 is moved further away from the U-shaped member 20 the leg 13 will pivot through a greater distance before the abutment 20a strikes the plate permitting the chair back 10 to assume a rearwardly inclined position with relation to the seat 14. In other respects this form of the invention is similar to the previous form.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In a folding chair, a substantially horizontal seat having a side arm terminating in an auxiliary leg, a vertical rearwardly inclining chair back having a side arm pivotally mounted on the side arm of said seat and terminating in a rear leg disposed in front of said auxiliary leg, a substantially horizontal arm rest having its rear end pivotally supported upon the side arm of said chair back, a vertical rearwardly inclined front leg having its intermediate portion pivotally mounted on the front end of the side arm of said seat and its upper end disposed in the vicinity of the front end of said arm rest, an inverted U-shaped member having its intermediate arm attached to the bottom face of said arm rest and its side arms extended along the sides of the upper end of said front leg, a pin extending through the side arms of said U-shaped member and the upper end of said front leg for pivotally supporting said front leg upon the front end of said arm rest, and a pivot limiting member mounted on the upper end of said front leg, a plate located between the arms of said U-shaped member and against which said pivot limiting member is adapted to abut for limiting pivoting of said parts, said pivot limiting member comprising a U-shaped member mounted upon the upper end of said front leg and between the arms of said first-mentioned U-shaped member, and an abutment formed on the intermediate arms of said second-mentioned U-shaped member and engageable against said plate in the completely open position of said chair for limiting further pivoting

of said leg with relation to said arm rest in one direction only, and means for shifting the position of said plate with relation to said abutment for changing the angle through which said front leg will pivot with relation to said arm rest before said abutment will strike said plate to limit further pivoting.

2. In a folding chair, a substantially horizontal seat having a side arm terminating in an auxiliary leg, a vertical rearwardly inclining chair back having a side arm pivotally mounted on the side arm of said seat and terminating in a rear leg disposed in front of said auxiliary leg, a substantially horizontal arm rest having its rear end pivotally supported upon the side arm of said chair back, a vertical rearwardly inclined front leg having its intermediate portion pivotally mounted on the front end of the side arm of said seat and its upper end disposed in the vicinity of the front end of said arm rest, an inverted U-shaped member having its intermediate arm attached to the bottom face of said arm rest and its side arms extended along the sides of the upper end of said front leg, a pin extending through the side arms of said U-shaped member and the upper end of said front leg for pivotally supporting said front leg upon the front end of said arm rest, and a pivot limiting member mounted on the upper end of said front leg, a plate located between the arms and against which said pivot limiting member is adapted to abut for limiting pivoting of said parts, said pivot limiting member comprising a U-shaped member mounted upon the upper end of said front leg and between the arms of said first-mentioned U-shaped member, and an abutment formed on the intermediate arm of said second-mentioned U-shaped member and engageable against said plate in the completely open position of said chair for limiting further pivoting of said leg with relation to said arm rest in one direction only, a screw rotatively engaged through said arm rest and extending between the arms of said first-mentioned U-shaped member, means for preventing upward movement of said screw with relation to said arm rest, said plate being threadedly engaged upon the bottom end of said screw so that when said screw is rotated said plate will be moved towards and away from said second-mentioned U-shaped member to control the angle through which said leg will pivot by said abutment striking said plate.

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