July 14, 1936. A. DE CONINCK 2,047,178

FOLDING CHAIR AND THE LIKE

Filed Feb. 2, 1935 2 Sheets-Sheet 1

FIG. 1.

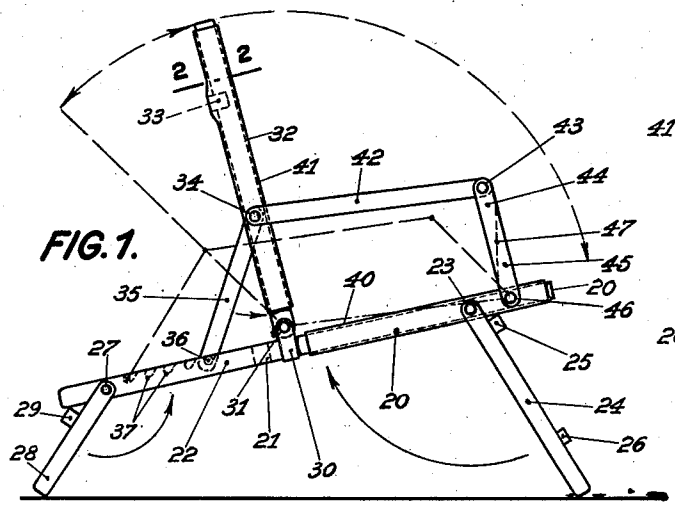


FIG. 4.

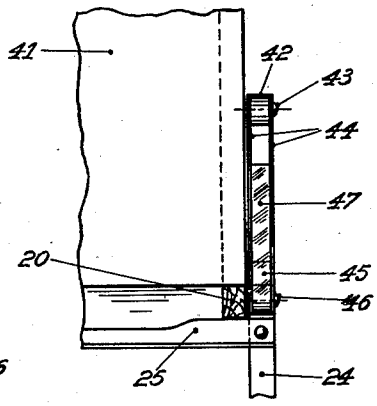


FIG. 3.

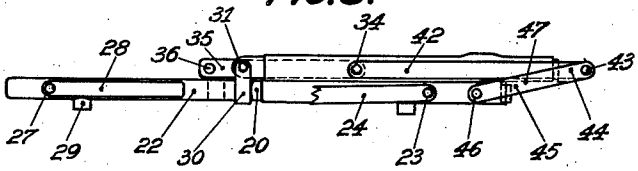


FIG. 2.

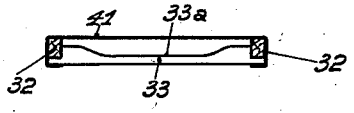


FIG. 5.

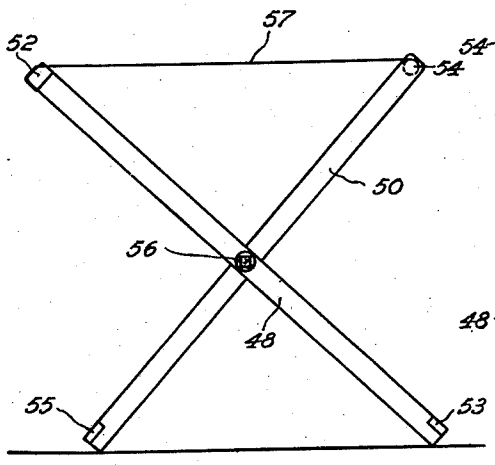


FIG. 6.

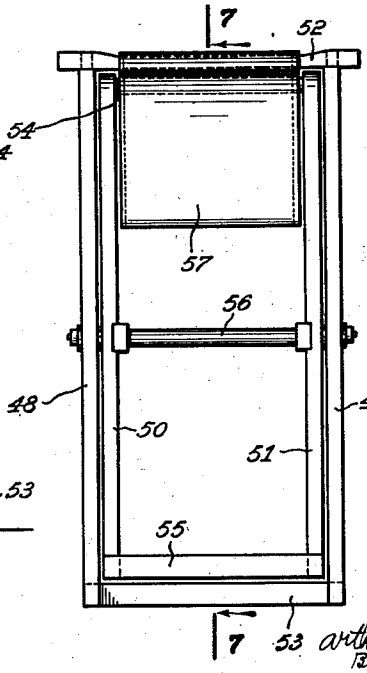
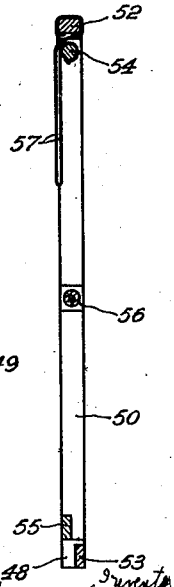


FIG. 7.



Inventor
Arthur De Coninck
By B. Singer, Atty.

July 14, 1936. A. DE CONINCK 2,047,178

FOLDING CHAIR AND THE LIKE

Filed Feb. 2, 1935 2 Sheets-Sheet 2

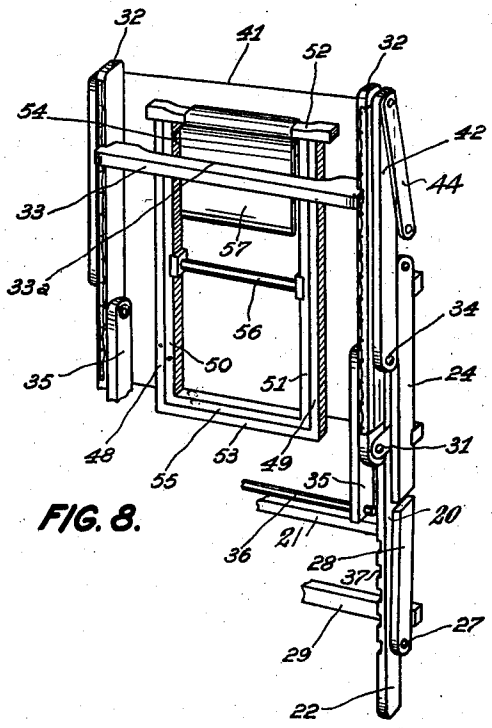


FIG. 8.

Inventor
Arthur De Coninck
By B. Singer, Atty.

Patented July 14, 1936 2,047,178

UNITED STATES PATENT OFFICE

2,047,178

FOLDING CHAIR AND THE LIKE

Arthur De Coninck, Brussels, Belgium

Application February 2, 1935, Serial No. 4,711
In Belgium November 27, 1933

1 Claim. (Cl. 155—139)

My invention relates to the construction of folding chairs and the like, whose seat and back portions are constituted by independent pieces of fabric fixed to the longitudinal bearers of the seat portion and to the side posts of the back portion, the desired gauge between said longitudinal and said side posts, respectively, being secured by means of members of such structure as to prevent any part of the users body from entering into contact with any rigid member of the chair, the arrangement of the various members of the latter being such that the chair may be conveniently folded so as to be compact in view of being stored or transported by hand or otherwise.

The reclining chair according to my invention and which comprises a reduced number of members adapted to impart to the chair a maximum of resistance, may be constructed under the form of a folding arm chair or reclining chair, both provided or not with hinged arms, and consists substantially of two longitudinal bearers between which a piece of fabric is stretched, said longitudinal bearers being braced, if, desired, by a cross-tie and two pairs of front and rear legs or, alternately, by the two pairs of legs only, the legs in each pair of legs being connected to each other by means of a cross-tie acting as an abutment adapted to limit the displacement of said legs and to keep the fabric at the desired tension, the back portion of the chair being also constituted by a piece of stretcher fabric attached to two posts hinged to the two longitudinal bearers of the seat and having their upper ends braced by a conveniently shaped cross-tie, said back portion being supported by a pair of crutches adapted to engage either directly or by means of a transverse rod, a series of notches provided in the longitudinal bearers of the seat, the user being enabled by this construction to adjust the inclination of the back portion without rising from the seat.

Further, the seat portion of the reclining chair may be provided with an extension consisting of a folding stool, the latter being so constructed as to be, when folded, of a width which is equal to or less than that between the posts of the back portion, between which said stool may be inserted when the reclining chair is folded.

My invention further relates to the construction of a folding arm chair having the same general features as the above described reclining chair, the longitudinal bearers of said arm chair being pivoted to a pair of braced front legs forming at the same time supports for the arms hinged thereto, said longitudinal bearers being braced at their rear ends and hinged to the posts of the back portion, the said posts being in turn pivoted to a pair of braced rear legs, the rear ends of the longitudinal bearers of the seat being adapted to be fixed to said rear legs by means of suitable pegs or studs, the cross-ties of the back and seat portions being positioned at a desired distance from the fabric forming the seat and the back portion respectively of the arm chair.

Further features of the invention will appear from the following specification with reference to preferred embodiments of the invention, as shown in the accompanying drawings, in which:

Fig. 1 is a side elevation of a folding reclining chair with an adjustable back portion according to my invention.

Fig. 2 is a section of the said back portion on line 2—2 of Fig. 1.

Fig. 3 shows the reclining chair when folded.

Fig. 4 is a fragmentary front view of the reclining chair shown in Fig. 1.

Fig. 5 is a side elevation of the folding stool adapted to provide an extension for either chair forming the object of my invention.

Fig. 6 is a front elevation showing the stool when folded.

Fig. 7 is a section on line 7—7 of Fig. 6.

Fig. 8 is a fragmentary perspective view showing the folding stool as inserted into the folded reclining chair.

As shown in Fig. 1, the seat of the reclining chair is formed of two longitudinal bearers 20 braced by a cross-tie 21 fixed between the backwardly extending portions 22 of said longitudinal bearers.

Towards the front ends of the longitudinal bearers there is hinged at 23 a pair of legs 24 stretched by cross-ties 25, 26, and near the ends of the said extensions 22 there is hinged at 27 a pair of legs 28 stretched by a cross-tie 29.

Towards the centre of each longitudinal bearer 20—22 there is provided e. g. a stirrup 30 of U shape, to which one of the side posts 32 of the back is hinged at 31, said posts being braced by a cross-tie 33.

A crutch 35 is hinged, to each of the posts 32, such as at 34, the two crutches being preferably connected at their opposite ends by a rod or tube 36, whose ends extending beyond said crutches may be adapted to engage suitably shaped indentations or notches 37 cut e. g. in the body of each longitudinal bearer portion 22.

It is to be understood that the cross ties 25 and 29 provided on the legs 24 and 28 respectively are positioned at a proper height on the latter so as to form abutments adapted to limit the

inclination of said legs, and in such manner as to constantly secure a strictly true gauge of said legs, and consequently, of the longitudinal bearers 20, 22.

A piece of fabric 40, adapted to constitute the seat proper of the reclining chair is stretched between the two longitudinal bearers 20, to which said fabric is fixed or attached in any suitable way, while another piece of fabric 41 adapted to constitute the back of the reclining chair is stretched between the two posts 34 in the same manner as the fabric 40.

Considering that the pieces of fabric 40 and 41 are tensioned, it will be seen that they will remain at a certain distance from the cross-ties 25 and 33, which distance may still be increased by cutting out or otherwise shaping those cross-ties on a major part of their length, as shown at 33a (Fig. 2) in regard of the cross-tie 33.

Owing to this construction, and considering the position of the cross-tie 21, it will be apparent that a stool according to my invention will comply with the first object thereof, viz., that the body of the user be supported and borne solely by the tensioned fabric and will not be restrained through coming into contact with a rigid member.

Further, as the inclination of the back portion 41 is determined by the position of the crutches 35, it will be seen that the user may, while remaining in a sitting position, modify said inclination at will by simply disengaging the ends of the rod 36 from the notches 37. Due to the crutches 35 being hinged at 34 the ends of the rod 36 may engage any other notch, or, alternately, dip into a notch next to that from which they have been disengaged. Of course, the notches 37 will have a suitable outline so as to allow an easy engagement of the ends of the rod 36 into the notches, while preventing ill-timed disengagement of said ends.

It is also to be understood that the stirrup 30 allows tilting the posts 32 of the back through an angle of 180°, which would not be attained by an ordinary hinge. Owing to the reduced length of the branches of the stirrups 30, the latter cooperate with the cross-tie 33 in maintaining an invariable gauge between the posts 32.

A removable or non-removable arm member is constituted by a bar 42 (Figs. 1 and 4) pivoted at one end at 34, the opposite end of the bar 42 being pivoted at 43 to a pair of metal strips 44 fixed to a short post 45 pivoted at 46 to the longitudinal bearer 20 of the seat portion. The end 47 of the post 45 is cut in wedge form so that the parts of the arm member would not increase the thickness of the reclining chair when the latter is folded.

Upon examination of the construction and the arrangement of parts forming the chair shown in Fig. 1, as well as the direction of folding as indicated by the arrows, it will be understood without further explanation that the whole unit may be conveniently folded so as to be very compact, as shown in Fig. 3.

Finally, the above reclining chair may conveniently be completed by an extension or foot rest consisting of a folding stool such as shown in Figs. 5 to 8.

As shown in those figures, the folding stool consists of two frame members having posts 48, 49 and 50, 51, respectively. The posts 48, 49 are braced at their upper and lower ends by cross-ties 52 and 53, respectively, while the posts 50, 51 are braced at their upper and lower ends by cross-ties 54 and 55 respectively.

The thus formed frame members 48, 49, 52, 53 and 50, 51, 54, 55 are pivoted to a common cross-tie 56.

It will be seen from Figs. 6 and 7 that the posts 50 and 51 are of less length than the posts 48, 49, so that when the stool is folded the frame member 50, 51, 54, 55 will be lodged within the outer frame member 48, 49, 52, 53 so as to be positioned in the plane of the latter. As shown in Fig. 7, the total thickness of the stool when folded does not exceed that of the posts 48 and 49 of the outer frame member.

The result of the particular arrangement of the two frame members is that when the stool is unfolded, the seat or rest portion constituted by a piece of fabric connecting the two frame portions is somewhat offset laterally relatively to the base of the stool. However, as will be seen from Fig. 5, the amount of the offset does in no way affect the stability of the stool.

Finally, it will be seen that the above described arrangement of the frame members makes it possible to provide, at the lower ends of the latter, the cross-ties 55 and 53 which would ensure to the stool a stability and strength throughout.

As shown in Fig. 8, the stool, when folded, may be inserted between the posts 32 of the back portion, the cross-tie 33, and the fabric 41 of the reclining chair when the latter is folded, so that the compactness of the latter will not be lessened. It will be noted that the latter figure shows an arrangement of arm members somewhat different from that shown in the preceding figure.

What I claim is:

A reclining chair comprising a pair of longitudinal bearers each having a front portion and a rear extension; a stirrup mounted medially on each bearer; legs supporting said bearers in position; fabric secured to the front parts of said longitudinal bearers and stretched between the pair of bearers as a seat; side posts whose lower ends are pivoted to said stirrups on an axis above the plane containing said longitudinal bearers; a cross-tie between said side posts near their upper ends; a fabric secured to said side posts and stretched between them and spaced from said cross-tie; a cross-tie between said longitudinal bearers and located to the rear of said stirrups; a crutch pivoted to said side posts and operatively connected to the rear extensions of the longitudinal bearers; an arm bar pivoted at one end to each side post; a pair of metal strips pivoted to the other end of each arm bar and pivoted to the adjacent longitudinal bar; a post between each pair of metal strips, the upper ends of which posts are cut wedge shape for purposes described.

ARTHUR DE CONINCK.